Chapter 1
Going Beyond the Bibliographic Catalog:
The Basis for a New Participatory Scientific Information Discovery and Sharing Model

Filipe Manuel dos Santos Bento
University of Aveiro, Portugal

Lídia de Jesus Oliveira L. da Silva
University of Aveiro, Portugal

ABSTRACT

The scientific community is undergoing one of the most dynamic and demanding times of its existence. Never in its history has the community been so extensive, it has never published as much as today, and never has the knowledge life cycle been so short. New data, new interpretations, new theories, and new members emerge every day: the number of publications is immense, and it is not always clear how to construct a search strategy that proves to be effective and efficient, so as to obtain relevant and significant information.

It is in this context that new services are being developed, aiming to aggregate significant sets of resources and services that until now were dispersed, powering them with innovative features, some of them a mashup made of data obtained in real time from external services, but more than that, to promote the logic cooperation of users of such resources, who can take advantage of comments from those who have used them before, but also can add value and see the local indexed resources' social network.

Indeed, Web 2.0 components and the collaborative and participatory environment associated with their use can help enrich information search, discovery, and retrieval systems, gathering the potential knowledge distributed among its users. These components can prove to be a precious asset in promoting collective intelligence by knowledge sharing, encouraging the users to evaluate the resources found, so that the next

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ones, when conducting a similar search, first obtain the most relevant results ("Search > Find > Evaluate > Understand> Share" cycle). If one includes in these systems a component of aggregation of sources, records, and contents, preferably using intelligent algorithms for retrieval of related information, one can give users a "one stop search" point, rich in content, for being not only an aggregator of multiple sources, but also for its participatory/collaborative component, with possible gains in communities of users with common study or research interests' creation and identification.

This chapter exposes some core concepts for an innovative bibliographic information search system model, where not only the document is the point of reference, but to a new extent, the user himself and all his surroundings. Taken as central point is the bibliographic collection of the Library and the "eco-system" of users and their use of the same, added with, to the extent where it is feasible, information from other sources.

INTRODUCTION

Despite carrying out several activities with Web 2.0-related tools for quite some time now (such as implementing RSS feeds in some of the their more dynamic services), recently, Libraries became aware of social media's power as open channels for information dissemination and training, but also for gathering their users' feedback. In fact, most of them are placing a strong bet in Web 2.0 related services, of presence near their users, allowing them to reach them wherever they are. Ensuring systematic and ongoing updates, this presence is intended to, among other objectives, promote in an agile and simple manner, the activities of the Library and related news, giving visibility to its action in academia, but also to promote and enhance resources available to their users, as well as generate a participatory dynamic and a shared production of contents.

Nevertheless, Libraries should not stop here; in fact, they should not take it up only a notch, but rather a lot higher. Complementing this ongoing bet, they should provide the university and its users with an integrated system, contextualized to the community it serves, implementing participatory and information sharing features, creating and maintaining communities. By providing a complete framework, tools and features users treasure in popular external services or by implementing mechanisms of aggregation of such socially generated information in such services, this system should aim at preventing information produced by users to be disperse across those services (as currently is), most of it not possible to be integrated, connected or aggregated (and thus becoming virtually invisible to other community members), with no guarantee of future preservation.

In fact, implementing such a system can target a double contribution: first, to systematize and preserve cultural and scholarly production of faculty members; secondly, to make this memory accessible, so that it may enrich the present work, generating a conservation and dissemination effect which contributes to the collective intelligence and social cognition, not only within the local community but also to external ones. This new model of search, discovery, and information sharing aims at integrating Library's collections indexed in its Catalog, as well as to aggregate content from external sources and contributions of its users. This is where the OPAC comes along; given the main features advanced for such system; it is quite natural that the OPAC should be given the central role, in a new vision for the Bibliographic Catalog, an OPAC 2.0 / NGC (Next Generation Catalog), aggregator at a content level, explorer of users' actions, gathering and valuing their contributions.