

# Web Portals Designed for Educational Purposes

**Lucy Di Paola**

*Mt. St. Mary College, USA*

**Ed Teall**

*Mt. St. Mary College, USA*

## INTRODUCTION

The increase in the use of technology in daily life activities has led to the growth and popularity of Internet portal sites. Portals are gateways that provide information ranging from general to specific interests. There are four generally recognized classifications of Web portals: (1) horizontal, (2) vertical, (3) enterprise information portals, and (4) B2B portals (Goodman & Kleinschmidt, 2002). Horizontal portals such as Excite, Lycos, MSN, or Yahoo! provide services such as news, entertainment, weather, stock information, e-mail accounts, or provide links to other searching or sponsored sites. Vertical or niche portals (or vortals) provide services to public audiences searching for specific content or interest. Enterprise information portals (also called enterprise resource portals or corporate portals) provide restricted access to private resources of an organization. B2B portals, sometimes referred to as industry portals, are a relatively new phenomenon designed to sell particular goods to consumers online; they are corporate in nature yet vertical in application. Educational Web portals would best fit into the vertical portal category and will be the focus of this article.

Educational portals are Web portals designed to give users a resource for locating and navigating to Web-based resources that support educational endeavours. These resources may include links to Web pages and files with information provided for a specific educational exercise, links to external Web sites (Web sites that are not part of the educational portal), illustrations of concepts including animations, means for accessing software, communication tools, and other electronic resources employed in teaching and learning. Considering this basic conception of educational portals, it would appear that they are all merely vertical portals designed as public gateways to educational resources. This classification is too narrow. What is important to recognize is that educational portals serve both as public gateways to information and as private gateways to the resources a particular institution or organization wants to make available only to its members. Recognizing this provides a framework for classifying educational portals into two types: educational resource portals and instructional portals. The focus will be to clarify this classification.

## BACKGROUND

During the late 1990s when there was a rapid expansion of the World Wide Web in terms of both resources available and users, it became increasingly difficult for users to locate desired resources. One solution to this was the development of search engines. The other solution, often developed and provided in conjunction with search engines, was Web portals. These provided a gateway and/or filter for users to focus their efforts for finding and identifying desired Web-based resources. Yahoo and Lycos were two of the early portals and they attempted to categorize as many Web sites and resources as possible. These become the proto-type of what are now known as horizontal portals (Strauss, 2002). They provide a gateway to general resources and are the starting point for many users.

As the use of the Internet expanded, people began to find they needed resources related to a more specific topic. Developers recognized this and Web portals were designed for a specific audience in mind. These vertical portals, sometimes referred to as vortals or niche portals, contained resources for a particular audience (Goodman et al., 2002). Vertical portals target a specific interest group, for example, women (iVillage), bloggers (bloggers.com), etc. Vertical portals, like horizontal portals, are public in nature; any individual with Internet access is free to enter the portal and use its resources. Increasingly, users are turning to vertical portals as their entry point for searching and surfing the Internet.

A third major type of Web portal is the enterprise information or corporate portal. These Web portals serve as a gateway to information for a specific business or corporate entity. The enterprise information portal (EIP) provides employees access to internal applications and documents that are available on a corporate intranet (Computer World, Inc., 1999). The portal serves as a restrictive gateway to resources and information for those directly involved in the business. Access is restricted by passwords or firewalls; this makes the corporate portal a private gateway. While the portal may provide links to external sources, the selection of these is to provide the resources needed for individuals to complete assigned tasks.

A fourth major type of portal, the B2B portal, is business oriented and focuses on a business-to-business market. Marketingterms.com (2004) defines B2B as “business that sells products or provides services to other businesses.” B2B portals are vertical in nature since they provide a niche or focused area of business interest and represent an ever-growing sector of e-commerce.

At the same time that these types of portals have appeared, there has been a rise in the use of computers and the Internet by educators. An example of this is the rise of computer and Internet use by United States teachers from 2000-2004 that has risen from an average of 63 to 76.6% (Education Counts, 2006). The International Society for Technology in Education NETS for Teachers Project, a project of the U.S. Department of Education, *Preparing Tomorrow's Teachers to Use Technology* (2005) set the tone for the effective use of technology in education and reached a national consensus on what teachers should know about and be able to do with technology. Also responding to the need to improve teacher training capacities, the United Nations Educational, Scientific, and Cultural Organization's “Education for All by 2015” (UNESCO, 2006) created a portal with a variety of links to educational themes and initiatives dedicated to improving teaching and learning in countries world-wide.

The need for portals directed at educators to support their efforts is apparent. The creation and development of these portals replicated the vertical and enterprise information portals. It is then possible to classify education portals into two categories according these types of portals.

## **CLASSIFICATIONS OF WEB PORTALS DESIGNED FOR EDUCATIONAL PURPOSES**

The purpose of all educational portals is to provide a focused resource for educators to make the use of the Internet more effective (Stevenson, 2001). Educational portals fill a specific niche as a resource for a defined audience of educators (McLester, 1999). As a tool designed to support the educational objectives of teachers and learners, they provide access to resources for enhancing the educational opportunities of contemporary learners. Since these portals target a focused audience, they are vertical portals. However, by simply classifying all educational portals as vertical portals (vortals) one will gloss an important distinction between two predominant types of educational portals that correspond to vertical portals and enterprise information portals.

While educators and educational institutions are unique, there is broad agreement on what knowledge and skills students should acquire for students in PreK-16 settings or in specialized educational institutions. All educators striving to ensure the success of students on any level benefit from access to similar resources accessible on the Internet

through public gateways. Portals of this type are similar to the typical vertical portals focused on various subjects. A descriptive way to classify these verticals portals is as educational resource portals.

In contrast to the common educational objectives, each educational institution will have unique needs and resources. The use of these resources is restricted to the individuals affiliated with the institution and is a private gateway similar to enterprise information. To distinguish these portals from the educational resource portals, an accurate designation is instructional portals. The emphasis of this type of educational portal is to provide a centralized location for the delivery of instructional materials to a targeted audience. In this case, the targeted audience is a specific learning community that the portal serves. The audience is not a general group of individuals tied by a common factor of teaching similar grade levels or learning a specific subject matter.

## **Vertical Portals in Education: Educational Resource Portals**

Educational resource Web portals mimic the traditional format of vertical Web portals and are the more recognized type of educational portals. Others refer to these as networking or resource-based portals (Butcher, 2002). The primary purpose of this type of educational portal is to provide a publicly accessible, organized mapping of external educational Web pages and Web sites available on the Internet. In order to facilitate the search for relevant resources, the portal designer will employ a variety of categorizations. Classifications of resources may include subject matter, instructional level of students, instructional objectives, types of instructional activities, elements of the teaching or learning process, or theoretical views of education. Using this approach, the educator is able to complete a focused search for the specific resource(s) needed.

While the primary type of resources provided in this type of educational portal are external Web pages and Web sites, one may find additional internal resources (Web pages that are part of the portal and not separate or external to it) created by the portal designer. The designer may include articles or tools unique to that portal. For example, the Web portal may include submissions through a community discussion board or tools for creating teaching resources (e.g., worksheets or rubric generators). These additional resources are categorized with the external resources but one does not leave the portal to access them.

Examples of educational resource portals include:

- EDSITEment.neh.com (2006) focusing on the humanities,
- goENC.com (2006) focusing on mathematics and science content, PrimarySchool.com.au (2006) that offers free primary school lesson plans and resources, and

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