Preface

When I mentioned that I was putting together an encyclopedia of portal technology and applications that would have around 200 articles, a college at Victoria University asked me whether there was enough material in the world written on portals to do that. I replied that even if there was not, there soon would be. The final product you are reading bears this out, with almost 200 articles from 31 countries around the world. There are contributions from Australia, Bosnia and Herzegovina, Brazil, Canada, China, Denmark, Finland, France, Germany, Greece, India, Ireland, Italy, Jordan, Netherlands, New Zealand, Nicaragua, Nigeria, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Tunisia, UAE, UK, and the U.S.

A crude measure of the growing importance of the portal comes from a Google search of the World Wide Web. In September 2006, this search produced 1.5 billion entries relating to portals. A similar search, performed in October 2005, produced 425 million entries, and in December 2003, only 35.6 million. This measure is rather crude, as definitions change and some entities that were not previously called portals now are. It is also the case that some of these entries refer to other types of portals, such as those on medieval cathedrals. It is, nevertheless, clear that Web portals have become an important topic for discussion, and one that is becoming more important as time goes on.

Despite appearing to cover quite a narrow area, the topic of Web portals is an extremely diverse one, and this encyclopedia provides a broad and quite detailed overview of this topic. It examines the technology of portals, the many different types of portals, and the many and varied business uses to which they can be put. The obvious question to ask before beginning, though, is: What is a portal? Most people have an idea of how to answer this question, but not all the answers would be the same; there are many views on what constitutes a Web portal. The term "Web portal" is rather overused and takes on a somewhat different meaning, depending on the viewpoint of the people involved in the discussion. Some people define a portal quite tightly suggesting, for example, that it must be customisable by the user or that it must have certain specific features (Tatnall, 2005b). Although in the encyclopedia you will find many different definitions, some simple and some quite technical, I prefer the simple definition that suggests that, as in general terms a portal is just a gateway, a Web portal can thus be seen as a gateway to the information and services on the Web (Tatnall, 2005a).

A portal can be seen to aggregate information from multiple sources and make this information available to various users. In this sense, a portal is an all-in-one Web site used to find and gain access to other locations, but one that also provides the services of a guide that can help to insulate the user from the chaos of the Internet and direct them towards their goal. More specifically, a Web portal should be seen as providing a gateway not just to useful sites on the Web, but to all network-accessible resources, whether they involve intranets, extranets, or the Internet (Tatnall, 2005a). In other words, a portal offers easy centralised access to all relevant network content and applications.

The first Web portals were designed by companies like Yahoo, Excite, and Lycos to act as general jumping-off points to the contents of large parts of the Web. An early classification of portals had them being either horizontal or vertical (Lynch, 1998). The original portal sites mentioned would have been considered as horizontal portals because they were used by a broad base of users, whereas vertical portals were focused toward a particular audience. Apart from those mentioned in this encyclopedia, there are few definitive categorisations of the types of portal, but Davison, Burgess, and Tatnall (2004) offer the following list: general portals, community portals, vertical industry portals, horizontal industry portals, enterprise information portals, e-marketplace portals, personal/mobile portals, information portals, and niche portals. A major problem, however, is that new types and categories of portal are appearing all the time, portal types are reclassified, and most classification schemes include overlapping categories.

Web portals started off in conjunction with search engines, but soon developed into what today we know as general portals. These were intended to offer their user a broad range of possibilities, and to satisfy the requirements of a large number of users who had general, rather than specific, information requirements. In recent times however, the trend has been very much towards a growth in the variety and numbers of portals dedicated to more specific functions. Even given...
the difficulty in classifying portals or attempting to count the numbers of each type, it has become clear that specific, rather than general portals are very much the topic of interest around the world (Tatnall, 2005b).

The project to create this portals encyclopedia began in mid-2005 when a call for proposals was sent out to researchers around the world. Researchers were asked to submit proposals describing a possible research article relating to either portal technology, portals applications, or some other topic related to Web portals. All proposals were carefully reviewed by the editor and editorial board to determine their suitability, research quality, coverage, and general interest. The best proposals were accepted, and their authors requested to develop them into research papers of around 3,500 words. When the full article submissions were received, they were forwarded to at least two expert external reviewers on a double-blind, peer-review basis. Only submissions with favourable reviews were chosen for inclusion in the encyclopedia and, in many cases, submissions were sent back for several revisions prior to final acceptance.

Articles in the encyclopedia cover a wide range of topic, ranging from the complex to the very simple. One group of articles discusses the nature, characteristics, advantages, limitations, design, and evolution of portals, while at the other end of the spectrum, several articles investigate semantic portals and others look at some philosophical portal issues. Knowledge management is an important and growing field, and portals have an important part to play in this growth, and this is described in a number of articles. Despite globalisation, there are still parts of the world where things are done differently and which have something interesting to tell us. A number of authors describe the use of portals for specific purposes in their own countries.

A major user of portal technology around the world is governments and the public sector. A large group of articles describes and discusses public sector and government portals, while social and community-based portals are not forgotten. At the personal portal level, articles discuss topics including Web logs, widgets, and MP3 players. Medical, health, and bioinformatics portals form another significant group of articles. Not surprisingly, given that most were written by university academics, there are a number of articles that refer to educational portals of one type or another. At one end of the spectrum, some of the articles describe large-scale university portals that are little different in many respects to enterprise information portals. Still at the level of university education, there are also articles on academic management portals, the construction and deployment of campus portals, academic portals that support a mobile learning environment, portals for artificial intelligence in education, and issues of power and politics related to university portal implementation. Portals are used in other levels and aspects of education as well, including primary and secondary schools and for distance education. Articles describe the issues, advantages, and problems of portal use for each of these applications. Portal use in public and corporate libraries and professional societies can also be fitted into this category of public portals.

The business and industrial sectors make good use of portals, and the encyclopedia has articles relating to various types of business portals. There are also articles on organisational and management issues regarding portal use, enterprise information portals, human resources portals, portals for small to medium enterprises, and more specific topics including shopping, the automotive industry, and wine industry portals. The economics of setting up and using these portals is also discussed, as are issues of strategic planning, user acceptance, security, and the law. More specific articles also deal with project management, tourism, and with science and environmental portals. One especially interesting topic deals with the monitoring of nuclear power plants.

Portal technology itself is important, especially to those involved in the design and implementation of portals, and a large number of articles discuss different aspects of this topic. One important consideration is whether certain implementation factors are more likely to lead to successful adoption of portal technology than others. The design and development of portals is not forgotten, and applications and technologies such as business intelligence, artificial intelligence, intelligent agents, and mobile technology are discussed. Commercial portal products and portal vendors have an important part to play, and this is evaluated in several articles. Portal quality and standards, as well as measurement and evaluation of portals, is also considered.

This publication should not be seen as just another form of textbook, although it does contain much material that would be useful to students of portal technology. Rather, it should be seen as a collection of up-to-date and relevant research articles relating to various aspects of portal technology from many contributors in many countries around the world. To ensure that their quality and relevance is high, all contributions to the encyclopedia have been subjected to a rigorous process of blind peer review.
REFERENCES


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