

# A framework for portal implementation: A case for Saudi organizations

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## ABSTRACT

Portals provide an aggregated and personalized view of information through a large application integrating information, people, and processes across organizational boundaries. As such, portals can significantly impact organizations, completely changing how they work and operate. In addition, many critical success factors can affect portals at any stage of implementation. Many organizations lack suitable frameworks for implementing portals to ensure success in the organization, customer satisfaction, and employee morale. To address this gap, we proposed a comprehensive framework to develop and operate portal projects by considering specific critical success factors. We have evaluated and compared this work with previous work in the same field, more accurate and significant results.

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## 1. Introduction

Portals are gateways enabling viewers to access organizational services via the internet. Portals integrate a variety of services, providing them to viewers in a single window. Today's businesses provide their own portals for end users. According to Tojib, Sugianto, and Rahim (2005), B2E portals offer a viable approach for e-business. Instead of disseminating information via email or snail mail, information resources are frequently (Lim et al., 2006) posted on the web in various forms, including web pages, document files, and spreadsheets or even blogs. Consequently, the web has become the largest source of information—and probably the most popular one as well—thanks to easy-to-use web search engines and browsers (Lim et al., 2006; Tamara & Mary, 2004).

Web portals play an increasingly specialized role in the online world (Sharma & Gupta, 2005). The most common web portals are MSN<sup>1</sup>, Yahoo!<sup>2</sup>, and AOL<sup>3</sup>. Yahoo!'s portal offers multiple services, including mail, messenger, horoscopes, puzzles, and weather; it also contains multiple links such as news, business, games, groups, maps, finance, sports, and music. The Yahoo! web portal integrates all the information from these links to provide viewers one page for accessing it. MSN and AOL similarly provide integrated services to users and subscribers.

In addition, a portal hides coordination problems associated with the construction of service-based information systems,

thereby facilitating the evolution of the system (Vargas-Solar & Peñalva, 2005). Indeed, services can be replaced and added without having to revisit the entire implementation of the system. Portals' value-added specification and generation can be partially automated, which is particularly significant when the number of participating services is important (Vargas-Solar & Peñalva, 2005). For example, corporate portals provide single-point web browser interfaces to promote the gathering, sharing, and dissemination of information throughout the enterprise, thereby providing corporations a means by which to manage and access information from disparate sources across the firm (Detlor, 2000).

## 2. Related literature review

Computing power is no longer exclusively for IT experts. Since the 1980s, non-technology experts have been using the computer (Kastel, 2003) with increasing regularity. With the help of ongoing technology development, non-technical users have become more able to work with computers and related applications, taking charge of its information. This improvement has developed in four steps, as shown in Table 1 (The Evolution of User Computing) (Kastel, 2003).

In the early days of the internet, portals such as Yahoo! served as gateways to the rest of the web. When a user wanted to find certain information, the user started at a portal and, using a search or a directory, made his or her way along pages providing the requested content (Accenture, 2009). However, today, the internet is quite different, serving as a source for many different types of services, such as messaging, music, videos, movies, and photos. As a result of this new versatility, the all-purpose software portal has given way to specialized hardware portals that provide entry into specific areas of the internet (Accenture, 2009). Indeed, since the new millen-

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<sup>1</sup> [www.msn.com](http://www.msn.com).

<sup>2</sup> [www.yahoo.com](http://www.yahoo.com).

<sup>3</sup> [www.aol.com](http://www.aol.com).

nium, *portal* has become an extremely popular term; many kinds of people and organizations significantly depend on portals. As a result, many types of portals have been developed over the years to achieve different purposes (Davydov, 2001). Fig. 1 illustrates the classifications of portals.

As Fig. 1 indicates, classifying a portal is quite a complex process. This paper will focus on corporate portals, which collect and integrate information from two different source portals: enterprise information portals and role portals. Furthermore, these two portals integrate information from three different source portals each. Thus, a corporate portal is a single user-integrated interface for its users, as shown in Fig. 1. Corporate portals offer organizational users the ability to access a wide variety of information sources directly from the desktop (Detlor, 2000). Meanwhile, enterprise information integrates different sources of data (ERP, CRM, business application data) as well as unstructured data (documents, reports), providing them in a single user interface portal (Sullivan, 2004), as shown in Fig. 2 (EIP architecture).

The use of portals is growing rapidly, as is the number of portal products. The saturation in the portal marketplace is leading to an increasing number of product acquisitions and failures (White, 2009). Given the volatility of the portal industry, organizations must build a flexible portal framework that can adapt to marketplace changes as well as product advancements. A portal framework will also help address integration issues as portal technology is absorbed into related software areas, such as web application servers, e-business packages, and enterprise application integration software (White, 2009).

**Table 1**  
The evolution of user computing (Kastel, 2003).

Time	Means	Scope
1980s	PC	Personal
Early 1990s	Client server	Enterprise
Late 1990s	Internet	Global/Structured
2000s	Portals	Global/Structured

Perhaps the largest benefit to today’s portal users is the ability for a single user to access information from multiple systems in multiple formats—all presented on a single page—which simplifies authentication for other systems (Jacoby & Luqi, 2005). Today, instead of disseminating information via email or snail mail, information resources are frequently posted on the web in various forms, including web pages, document files, spreadsheets, and even blogs (Remus, 2006), thereby making the web the largest source of information as well as one of the most popular ones given the easy-to-use web search engines and browsers (Remus, 2006). In light of the variety of user groups accessing portals (e.g., business partners, customers, and employees), a wide range of effective techniques for managing content within corporate/enterprise portals must be used. However, as B2E portals are concerned only with employees, not all techniques used in corporate/enterprise portals are applicable (Tojib et al., 2005). At the organizational level, corporate portals may be designed to fit or improve the organization’s information ecology. Consequently, developers must be aware of the situational contexts in which portals are used (Detlor,

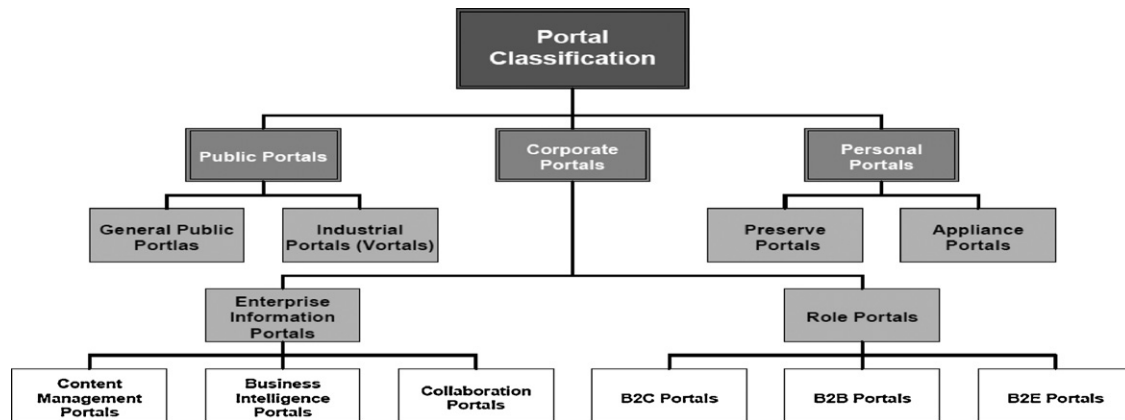


Fig. 1. Portal classification scheme (Davydov, 2001).

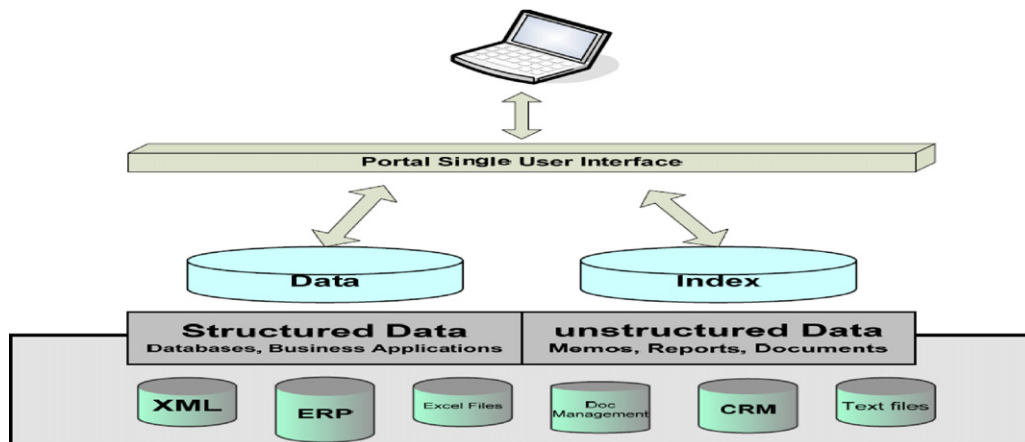


Fig. 2. EIP architecture (Sullivan, 2004).

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