Personal Portals

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INTRODUCTION

A portal, generally viewed as a gateway to resources, can be more pragmatically defined by its context of use. Portal development follows a continuum of use, beginning first with organizational portals, followed by more niche-driven user portals, and finally, a new category, personal portals. Personal portals have evolved out of individual and small group needs to advocate, educate, and collaborate. A foundational perspective, predominant influences, and examples describe each category.

A CONTINUUM OF PORTAL DEVELOPMENT

Three categories of portal development reveal different perspectives, influences, and types (see Figure 1). The continuum visual provides a conceptual representation of portal development in order to see the differences in portal use and reciprocal influences. The visual's nested nature signals the continued influence of organizations on user and personal portals, as well as the influence of user portals to provide resources and tools for personal portals.

Organizational Portals

Organizational portals inherently adopt a systems view in which the portal site is triggered from top-down organizational needs, and is systematically developed using a proprietary process, implemented, and revised based on explicit rules for "success." Most technologies, particularly information technologies, are systems based and inherently closed systems. An irony to this perspective is the conflict between the holistic nature of systems theory, valuing the "sum of the parts" notion, with the reductionist "deconstructing" of a system into a subsystem (Coyne, 1995). Organizational needs are specified in nonhuman numerical terms. Human systems, which are open-systems, challenge the organization to design a response to human needs, which cannot be predicted and totally equated by numbers, and are emergent and messy.

Organizational portals evolved out of search engine sites (e.g., Yahoo, Excite, Alta Vista) that catalogued Web sites and featured different strategies of personalization. Corporate institutions quickly understood the economic potential of portals to access new customers, keep existing customers, and reduce costs through public relations, informational, or legislation-compliant needs. The goals for organizational portals include cost reduction, revenue, and user experience (e.g., Dell, Auto-trader, eBay). Development of these portals resided within the institutions, although specialized e-commerce firms were contracted to develop Web sites, including graphic design, Web maintenance, and auxiliary services such as printing and shipping. Business units slowly moved some F2F training online to provide more real-time benefits as opposed to scheduled training sessions, a function that came to be known as e-learning.

Corporate uses of portals can be roughly categorized by those used by clients and customers, and internal enterprise portals, which manage structured data (i.e., databases and digital files). The development of metadata definitions enabled everyone in a firm to use the same "language" to describe information, staff, resources, and customers. The technology of eXtensible Markup Language (XML)

Figure 1. Continuum of portal development
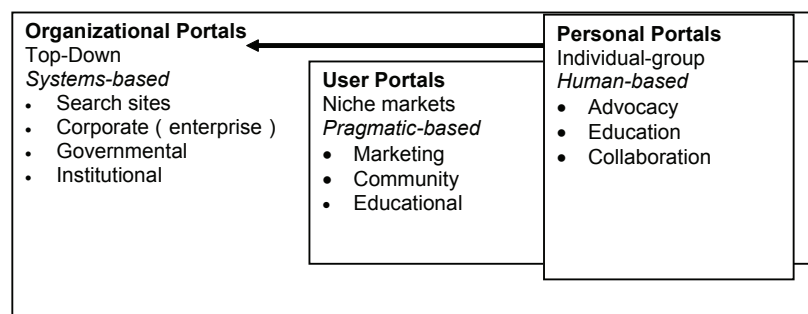
converted to browser-supported HTML provides a means to communicate this common language (Finklestein & Aiken, 1999). Metadata defines the structure of the XML document. The enterprise portal supports decision-making (e.g., e-commerce) that examines not only the content of the information, but the context in which the information was used (Shilakes & Tylman, 1998).

Consumer-visible portals provide gateways, as content providers or search engines, to Internet-based content. Some portals openly solicit customers for information. Database and data-mining technologies and processes develop customer profiles of purchases and preferences (i.e., Amazon, CDNow). Online versions of newspapers have iterated their designs many times in the search for increased revenue and readership. Their status as a portal may be resistant due to the power of "paper" (Brown & Duguid, 2002), although consumers may ultimately gravitate toward these sites owing to newspapers' experience with archiving and indexing. Another example of the user-category includes search and evaluation sites for consumer products and services, such as entertainment, electronics, and travel options.

Educational uses of portals lagged behind corporate use, reinforcing a view that educational institutions were less responsive to their constituents and more resistant to change than either corporate or governmental institutions. The 1990s saw colleges and universities adopting e-learning models to attract students in light of shrinking enrollments and state support. Portals provided a means to garner niches of specialty students, as opposed to mass replacement of F2F education. Traditional colleges and universities directly experienced competition for student enrollment and tuition dollars from for-profit educational organizations, as well as from colleges that obtained university status and began to offer a broader range of degree programs.

Despite the lack of evidence for cost savings for instruction, higher education portals have found some cost savings in their use within an e-business strategy incorporating administrative and instructional functions (Jafari & Sheehan, 2003). These portals allow individuals in higher education institutions to communicate with a broad range of constituents, including new students, parents, alumni, donors, and sports enthusiasts. Internally, educational Web portals embrace many areas, such as training, staff and student services, transactions, grant and development activity, learning communities, and risk and compliance needs (Burrell, 2000). Thus, Web portals for educational institutions may become a destination for human activity, rather than as a reference site of information (e.g., http://myuw.washington.edu).

User Portals

A second category of portals were developed by individuals from corporate institutions, specialists who had developed sufficient experience to adapt corporate models of portals for specific purposes not addressed by traditional business units. Some organizations reconfigured themselves or developed new units to take more advantage of the online environment, rather than replicating traditional business models. Rather than adopting a rationalist systems view, portal development adopted a pragmatic view concerned with use and the human experience. A pragmatic perspective embraces the context of use and human experience (Coyne, 1995).

User portals provided firms with target or position marketing, and succeeded or failed based on how they met human needs rather than corporate needs. Niche markets were identified, such as personal life styles, family and education, entertainment, travel, and consumer products. User portals concentrated on the specific needs of consumers or users, and featured unique interfaces and user experiences. Some sites existed for a short period of time because their strategy and design failed to garner a sufficient customer base, while others increased their scope of services (e.g., eBay).

Local governments developed community portals for citizens to access news on jobs, health promotion, services, and voluntary organizations (e.g., http://www.hillingdoncommunity.com). These sites provided citizens with convenient contact options using email and Web pages or newsletters to communicate availability of services and current events. Service providers for these sites could be a local governmental agency or a health-care or financial services provider. National governmental units, such as the Federal Emergency Management Agency (FEMA) and the U.S. Department of Health and Human Services, are legislatively authorized to assist citizens. The Agency for Healthcare Research and Quality, for example, is the lead agency in the Department of Health and Human Services charged with "supporting research designed to improve the quality of healthcare, reduce its cost, improve patient safety, decrease medical errors, and broaden access to essential services" (http://ancpr.gov).

Educational examples of user portals typically included corporate sponsorship of resources for consumer and public schools (e.g., http://www.teachnet.com/lesson/). Many educational user portals provided free resources with advertising (e.g., http://www.lessonplans.com) or for specific educational foundations, such as edutopia.org, a site developed by the George Lucas Educational Foundation, which was established to invigorate public school teaching with instructional technology. Numerous organizations developed portals for specific groups. One example is dec-sped.org, sponsored by the Division for Early Childhood of the Council for Exceptional Children, providing resources for young children with disabilities.

Organizational and User Portals to Personal Portals

Organizational and user portals both featured a product/service orientation, while personal portals focus on personal

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