

Internet Portals

What is a Portal?

The American Heritage Dictionary describes a “portal” as follows:

portal

Pronunciation: (pôr'tl, pOr'-) —*n.*

1. a door, gate, or entrance, esp. one of imposing appearance, as to a palace.
2. an iron or steel bent for bracing a framed structure, having curved braces between the vertical members and a horizontal member at the top.
3. an entrance to a tunnel or mine.

What is an Internet (Web) Portal?

A portal on the Internet is very similar - an entry point to information available on the Internet. ZdWebopedia (www.zdwebopedia.com) defines a web portal as follows:

“A web-site or service that offers a broad array of resources and services, such as e-mail, forums, search engines, and on-line shopping malls. The first Web portals were online services such as AOL, that provided access to the web, but by now most of the traditional search engines have transformed themselves into Web portals to attract and keep a larger audience.”

The basic concept of a portal is a URL from which users link to all manner of Internet services and activities (search, content, personal authoring, transaction, and social-interactive sites). The extreme boom in interest in (and hype about) portals has mainly been a gift from Wall Street, who ran the stock up on Yahoo! and a number of other portal companies in 1998-99.

Portals on the net have now become a competitive business. Not only are new portals emerging almost every day but also existing portals are coming out with new services at breakneck speed. Most of the major portal players are now in a mad race to acquire companies that provide good content and have unique features. The kind of information, which each portal directs the user to, depends on what kind of gateway it is. The early portals offered an array of resources such as news, stock quotes, free home pages, search facilities, travel information classified advertisements, and free e-mail. But more and more portals are now increasingly directed to specific business needs. Examples of some popular portals are Yahoo (www.yahoo.com), AltaVista (www.altavista.com), and MSN (www.msn.com).

From a consumer standpoint, using Portals has some disadvantages in that they dictate the content that the consumer is able to find. They're a good aid for new users to get acquainted with what's out there and what can be done, but at the same time, they only serve the user a slice of the Internet. Portal sites often point users to sites that live under the same corporate umbrella as they do, rather than to the most relevant or informative site on a given topic.

Advantages of Creating Portals

Web portals have the following Advantages:

- Provide data from multiple sources and in multiple formats that can be organized into a single menu.
- Provide web-based services such as chat rooms, searches, free password-protected email, FTP, bulletin boards, live-moderated events, forums, news, entertainment, and retail services.
- Incorporate triggers that alert users or run an application when a specific event takes place.
- Allow users to conduct business transactions.

Disadvantages of Creating Portals

Web portals have a few advantages inherent to most businesses

- Extremely competitive environment
- Inability to complete the business transaction/get the sale. This refers to the case where users find all the information they need and go to a competitor portal site or direct seller that offers them a better deal (maybe because they have not spent that much on providing diverse and quality information).
- Having too much or too little information and thereby either confusing or frustrating the user.
- A related issue to the above is having the latest information.

Sources of Income for Portal Creators/Owners

The fact that the number of internet portal sites are increasing at lightning speed suggests that Internet portals are perceived as a lucrative business opportunity. As mentioned before, an Internet portal serves as a gateway to a wealth of information. Based on this there are several sources on potential income for portal creators/owners:

- Consumer-side Revenue: Charging users to access the information on the portal site. An example of this is having "membership" programs where users sign up and gain login privileges. Normally, such a revenue model works best when the information provided is either scarce and/or extremely valuable or when the served user base is affluent.
- Supplier-side Revenue: Charging "linked" content suppliers for each transaction driven through their site. This model works well when buyer power is high such as in commodity markets.
- Advertising on the portal site.

A portal owner may have a revenue model that is a hybrid i.e. a combination of two or more of the above pure models. The model selected also depends on the goals and objectives of the portal site and also the market being serviced by the portal site. For example, portals for professionals such as doctors, lawyers, etc. may rely on the buyer-side revenue model. The Advertising model is generally applicable to all portal sites to some extent. Hence most portal sites use a hybrid revenue generation model.

Emerging Market Trend: Internet Portal Consolidation

A significant trend in the Internet space is the continuing consolidation and refinement of Internet portals. At fantastic speeds the world is witnessing not only the consolidation of portal companies, but also of their content into refined, industry specific spaces. The Web is actually "forcing" consolidation of sites. Currently there exists so much "fluff" that it can be difficult to "wade" through the oceans of information. Recognizing this issue, "fluff" providers have begun efforts to consolidate. For example, the government has begun consolidating their sites. Commercial content providers are merging, libraries are consolidating their data, and news agencies as well are banding together. Some of the recent mergers and acquisitions within the portal arena include: Yahoo! With GeoCities, Broadcast.com, and Fox; @Home Networks with Excite; USA Networks with Lycos; Disney with Infoseek; NBC with Snap; and AOL with Netscape.

Two major categories of portals are emerging from these consolidation efforts:

1. Vertical Industry Portals

It has been observed that a savvy web user will slowly move away from all-purpose portal sites towards sites with content and selling/buying opportunities of products/services the user needs most. This aspect of web surfing has given rise to the concept of the vertical web community - a site that acts as a comprehensive source of information and interaction for a particular vertical market. Hence it comes as no surprise that the current trend is towards the niche-oriented or vertical portals - portals geared toward a particular segment. They offer a variety of information and services offered by mega portals but targeted at a specific area or interest. The approach is to deliver customized data and applications to targeted communities. Such focused web sites for

e-commerce, often called Business-to- Business (B2B) sites, are aimed at attracting buyers and sellers from around the world by catering to individuals with similar interests. A B2B site on the Internet is a single destination for commerce and is a radical shift from the traditional B2B transactions, which are constrained by such factors as geography, market hours, etc. This is an excellent example of “market place” versus “market space”.

Experts claim the Internet has 150 vertical industry portals in various stage of development. Such sites generated \$280 million in revenues in 1998 and are expected to generate \$20 billion by the year 2002 (Internet Week 1/25/99). An example of a vertical industry portal is Neoforma, a medical trading hub that has brought together 13,000 suppliers of hospital ad medical supplies and 70,000 buyers from 7,500 health care entities since it was launched in December of 1997. Another trading hub, Chemdex, has attracted 130 suppliers. Customers for its scientific research include Genentech and Harvard University, which can order from a catalog of 300,000 products. The site now handles \$10,00 in sales per day. The argument for vertical portals is the following: there are hundreds of vertical markets that operate inefficiently -- from steel to chemicals to biotech. The Internet can bring buyers and sellers together more closely and cut some of the cost out of doing business. A key to the process is the open sharing of information and sense of community that the Internet can foster. Business models vary, but the larger portal services take a five to ten percent cut of transactions. This is a relatively low margin relative to traditional acquisition costs as high as 40 percent for sellers in the physical space. The vertical marketplace hopes to pass these savings on to customers in the form of lower prices. Revenue is also generated through the sale of advertising and market reports. Analysts believe that the key ingredients for success will be the ability to provide robust services such as order tracking bill presentment and payment through automated process to both buyer and seller sites.

Examples of vertical industry portals are shown in the following table:

Chemdex.com	135 suppliers with 300,000 products	Procurement service for chemicals and biological agents
Metalsite.com	3 suppliers	Catalog and ordering system for steel buyers
Neoforma.com	13,000 suppliers and 7,500 buyers	Catalog of healthcare equipment
Paperexchange.com	40 suppliers and 500 buyer organizations	Catalog, ordering and freight services for the paper industry
The National Transportation Exchange	350 suppliers, including carriers and consignors	Trucking freight services

(Internet Week1/25/99)

2. Enterprise Portals: the latest step in the evolution of Intranets

With the rapid growth of ERP systems and data mining software, it is obvious that corporations understand the importance of systematic collection, organization and retrieval of data. However, the reality in 1999 is that most corporations have Intranets offering employees mostly static job-supported and human resource data. In the future we will see Intranets become the most integral component of an enterprise. Soon Intranets will become the starting point for managers and workers to access real-time and historical information from internal applications, legacy databases and from the Internet...Enterprise Portals. To date no one has seriously considered extracting content from the Web and using it as input to the data warehouse. This is because most authorities contend that Web content is too unreliable and unstable for business decisions. The problem is cultivating the few pieces of data from the web with real business value. As well, the transformation of hypertext into a structured database is often impossible. Images and sound can contain lot of hidden content that is not discernible to a machine (DBMS 10/99).

However, the Web is the mother of all data warehouses. And its resources are largely untapped. Valuable information about external business factors is readily available on the Web and is becoming more so each day. In order to remain competitive, businesses should be alert to outside information highly relevant to the enterprise. In effect, an Enterprise system acts as the company's own content provider focusing both externally and internally.

Examples of Enterprise Portals include the Jungle Corporation (www.jungle.com), which is turning the Web into a single virtual database by using specific wrappers around web sources and metadata to drive a database engine to process queries joining multiple sources, and Webframing.com (www.Webfarming.com), which looks at the application of web technologies to data warehousing.