

MATCHING THE REVENUE MODEL AND CONTENT OF HORIZONTAL PORTALS

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ABSTRACT

A simple definition of a portal describes it simply as a gateway, and a Web portal as a gateway to a corporate intranet or to the Internet. In this paper we will compare a number of differing views of what constitutes a portal, and offer a definition of our own. There are also several different categorisations used to describe the various types of portal. In this paper we begin with one that considers only two: *horizontal* or public portals and *vertical* (corporate or enterprise) portals. This done, in the main part of the paper we review the literature on business models for horizontal portals and describe one consisting of players, strategies and content.

Keywords: Portal, classification, characteristics, strategy, content, innovation.

1. INTRODUCTION: WHAT IS A PORTAL?

The word 'portal' has been around for quite some time, but its use to describe a tool for electronic commerce has emerged only recently. This paper examines the definition of web portals and a general method by which they might be classified. Literature related to the business model associated with horizontal portals is examined and synthesised to match their revenue models and content.

The Oxford Dictionary [1] describes a portal as a doorway or a gateway. A gateway is described as being the means of entrance or exit or the frame or structure built over the entrance. A simple definition of a Web Portal sees it as a special Internet (or intranet) site designed to act as a gateway to give convenient access to other related web sites [2, 3]. Costopoulou and Tambouris [4 :136] suggest that a Web portal is an information gateway: "It attempts to address information overload through an Internet-based environment in which to search and access relevant information from disparate IT systems and the Internet using advanced search and indexing techniques." From here on in this paper, when we use 'portal' we actually mean 'Web portal'.

The term portal means different things to different people [5]. More specific definitions of portals sometimes define them as sites that offer 'personalised content' to the user [6] or that offer a

'broad range of services' rather than necessarily just redirecting users elsewhere [7]. Some portals also offer services such as trading facilities [8]. Many authors have considered the definition of a portal and Smith [9 :94] considers 17 definitions and classes of portal. He provides a definition of portal to distinguish it from other types of information systems: "... an infrastructure providing secure, customisable, personalisable, integrated access to dynamic content from a variety of sources, in a variety of source formats, wherever it is needed".

This seems to require that a Web site should meet a number of criteria before it can be considered to be a portal in Smith's eyes. Van Brakel [10 :593] seems to be in some agreement with this. He discusses a number of different portal definitions and comments that:

"It is surprising how many times the term *portal* is being used to describe a static Web site environment. The corporate world is particularly at fault in this context: a well-designed and dedicated Web site that provides access to specialised resources or goods might be referred to as an information directory or information hub, but it is definitely not a portal with its current specialised functionalities. Simply affixing the word "My" to a system and adding a personal logon feature definitely does not metamorphose a static Web site into a portal ..."

An important notion behind the concept of a portal is that it often does not provide content itself, but organises content from other providers [11]. This often occurs through the provision of some type of directory or search services.

Van Brakel [10] also examines a number of definitions that require that a portal should *add value* for the user by providing more sophisticated information access features. He also adds that they should also specifically include *customisation* and *personalisation* features. In this context he describes personalisation as the ability to include personal information (such as a stock portfolio) or to subscribe to specific channel and/or alerts. Customisation provides the user with the ability to alter the look of the portal (for instance, by changing colours or font) depending upon personal preference.

An important concept behind the idea of a portal is the idea that it can be a 'one-stop-shop' for users with either generic or specific information needs. Rao [11 :325] defines portals as "those one-stop Web sites that try to satisfy most of an individual's daily Web needs". One of the major requirements of the one stop shop is that content from disparate providers must be integrated into one point of access [4].

For the purposes of this paper, we prefer a more generic approach to the definition of a portal. We would amend Smith's [9] definition as follows:

A Web portal is an infrastructure providing secure, integrated access to dynamic content from a variety of sources, in a variety of source formats, wherever it is needed. Value is added to the information by filtering it according to the purpose of the portal and shortening user search costs by the provision of directory or other search services. Value may also be added for the user by the addition of customisable and personalisable options and extra or bundled services.

2. TYPES OF PORTALS: BROAD CATEGORIES

Van Brakel [10] suggests that two broad categories of portals exist:

1. **Horizontal or public portals** are available to the general public or are for certain interest groups. They allow some level of customisation and personalisation. Sieber and Sabatier [12] suggest that horizontal portals are generic organisers of information.
2. **Vertical (corporate or enterprise) portals** are limited by certain authentication requirements, such as those reserved for employees of a company. We suggest that this definition should be extended to include supply chain partners as members of industry

portals. A feature of vertical portals is that they provide information for groups with specific interests [12].

Rao [11] suggests that there are three major categories of portals: Horizontal, Vertical and Corporate. This means that he separates van Brakel's vertical portals into two categories – internal (corporate) portals and vertical (industry based) portals – which matches our 'extension' of vertical portals fairly closely.

3. A BUSINESS MODEL FOR HORIZONTAL PORTALS

Definitions aside, in the remainder of this paper we will concentrate our discussions on issues related to horizontal portals.

3.1 Players: Customers, Portal Operators and Suppliers

Costopoulou and Tambouris [4] identify three major players in the portal industry. The example they give is for the forest industry, so we have provided a more generalised version. First of all there are **Customers**. We have referred to this group as *users*. Their aim is to obtain information and consumer services to fulfil their needs. The **Portal Operator** is the player we are interested in for the purposes of this paper. Costopoulou and Tambouris refer to this player as the 'trusted third party'. Finally, **Suppliers** provide the information and services to the customer (via the portal).

For the business model discussion, we will examine the strategy behind setting up a horizontal portal and how it might relate to the content or services provided on the portal.

3.2 Strategies

Meisel and Sullivan [13] suggest that there are several factors that contribute to creating a demand by Internet users for the services of a portal. These are:

- Provision of a convenient and organised way for a user to access the Internet. This reduces the search costs that are incurred by the user (time and/or money).
- Along the same line, the portal can filter out harmful information, or even information from less reliable sources.
- It can provide a means of assurance of the integrity of the sites they use for Web transactions.
- It can provide users with access to exclusive content and/or communications technologies.
- It can provide a one-stop shop – providing the gateway to the information that the user needs.

Successful implementation of these strategies can lead to revenue generation for the portal in a number of ways [13]. The business can also act as an ISP or team up with one – and generate extra revenues through subscriptions. Revenue can be gained through onsite advertising. Of course, advertisers are likely to pay more if the number of users and level of 'stickiness' is greater. Extra revenue through commissions charged on e-commerce transactions carried out through the portal. This can be from charging the merchant and/or through fees per transaction.

Earlier on in this paper it was suggested that a portal needed to add value for the user by providing more information access features. Sieber and Sabatier [12] suggest that value is added whenever the willingness to pay for the service being offered exceeds the (opportunity) cost of the provision of the service. They suggest that in the horizontal portal industry that value is created by a reduction in transaction and search costs and the creation of new ways to customise information or services. They also provide advertising clients with the possibility of targeted advertising. A critical mass of users is vital for horizontal portal operators. They are facing significant challenges as competition between them is intense; the cost to users of switching between horizontal portals is low (they can easily switch to other horizontal portals or, as their needs become specialised, switch to vertical portals) and technical changes to the portal (to upgrade facilities) must be managed carefully to avoid short term loss of services, and subsequent loss of users [12].

So how can horizontal portal owners survive? Sieber and Sabatier [12] suggest that the following are strategies that existing horizontal portal operators can adopt:

- Develop and maintain brand identity. This can be costly as quality television, radio and magazine advertising time is expensive.
- Try to improve site 'stickiness' – the amount of time users spend at the site. They can try to do this by profiling users (for customised services), changing content, providing local content and improving their brand.
- Try to obtain *exclusive* content. This, of course, can be quite expensive, so the payoffs (say, through increased advertising or subscription) will have to be enough to justify the expense.
- Encourage 'content' contribution by users by providing chat facilities or other forums.
- Bundle products by, for instance, linking e-mail services with information provision facilities.
- Become, or link up with an Internet service provider (ISP). A form of 'lock-in' occurs where, where users of the ISP automatically are channelled through the portal.

Another strategy that has become apparent is letting the operator adopt a 'keeping up with the Jones' strategy, on top of the other six: in other words, updating services to keep up with competition. This was seen when Yahoo introduced an upgrade of the standard 6Mb inbox to a 100Mb inbox. A few weeks later Hotmail (Microsoft's online e-mail service) introduced a 250Mb inbox and Yahoo subsequently matched it. Shortly after this, Google introduced a 1Gb inbox, which Yahoo has now also matched.

	REVENUE		CONTENT			
	Revenue Source (Meisel and Sullivan)	Revenue Model	Rao - core functions	Costopoulou and Tambouris –content classification	Rao – Selected portal tasks	Meisel and Sullivan – creating demand
Type of content/ service	Advertising	- 'added value' information	Connection	Information	- personalisation - directory search	- Lower search costs - filter harmful information
	Extra subscriptions	- exclusive content	Content		- news/ finance/ etc	-proprietary content - one stop shop
	E-Commerce transactions	- Comparison or convenience shopping	Commerce	eServices	- shopping - classifieds	- integrity/ security - one stop shop
	Advertising revenue	- improve stickiness - content contribution by users	Community		- create community - Web based e-mail - message boards - instant messaging - chat (extra Software, like Yahoo Messenger) - Personals	- one stop shop
	Advertising revenue	- improve stickiness	Entertainment		- games	
	Advertising revenue	- improve stickiness	Customisation		- free home pages - customise portal	
	Extra subscriptions	- bundled services	Bundled services		- offer ISP services	
Onsite advertising	Advertising revenue	- relies on stickiness	Advertising	On-site advertising		

Table 1: A Synthesis of Horizontal Portal Literature into Revenue Model and Content

3.3 Content

In the end, the content and/or services provided by the model must match the revenue model that the portal operator has selected. We have already briefly discussed the content that can be provided by a portal. Again from a forest industry perspective, Costopoulou and Tambouris [4] classify this into two categories – Information and eServices (which are online services that enable users to perform transactions and processes online). We would suggest that this includes features such as chat, e-mail and so forth.

Rao [11] classifies these differently, and suggests that portals offer a core set of functions, involving the four ‘C’s:

- *Connection* – to the Internet through search engines and so forth.
- *Content* – such as news.
- *Commerce* – such as access to electronic shopping.
- *Community* – provision of tools to define a community of interest and the means for them to communicate with each other.

Sieber and Sabatier [12] suggest that a ‘good’ (horizontal) portal will allow users to personalise and organise information. They point out that other services that have been added to horizontal portals include communication, entertainment, online communities, and customised news.

4. MATCHING REVENUE MODEL TO CONTENT

Table 1 (above) represents the authors’ attempts to synthesise some of the horizontal portal literature to provide a link between their revenue model and content. We commence with the revenue sources as outlined by Meisel and Sullivan [13]. These are advertising revenue (which relies on the site’s stickiness), e-commerce transactions and extra subscriptions through the provision of exclusive content or bundled services. When matching the revenue sources to the revenue model we have added in ‘added value’ that can be given by the provision of directory or search services to lower user search costs and improve stickiness. We have also suggested that e-commerce facilities provide the user with the option of comparison or convenience shopping. The revenue sources and models are repeated down the rows as they match across to different content alternatives across the table.

Costopoulou and Tambouris [4] have classified portal content into information and eServices – we have added ‘online advertising’ to this (as it can be seen on the portal) and matched their classifications with Rao’s [11] core functions. Note that we have added a number of ‘eServices’ to Rao’s list to allow for the addition of entertainment services (to improve stickiness), the ability to customise a portal and bundled services (such as an ISP service).

These can then be matched through to the more specific ‘portal tasks’ as identified by Rao – this column allows us to match the specific item on the portal back the revenue model. For instance, *games* come under the category of entertainment, with the aim of them being to improve stickiness on the portal and hopefully increase advertising revenue. In other words, Table 1 can be used as a means to identify a revenue model and match it to specific items on the portal – or vice versa.

The final column of the table matches Meisel and Sullivan’s [13] methods that can be used to ‘create demand’ on a portal with specific portal items.

5. CONCLUSION

The topic of portals is a large, complex and evolving one, and any categorisation or portals must, of necessity, also evolve with time. In this paper we have explored the concept of a Web portal and various attempts at categorising portals. At this point though, a simple categorisation into horizontal and vertical portals seems adequate.

We have outlined a business model for horizontal portals by examining revenue sources, revenue models, core functions and content classification. In attempting to derive a business model for horizontal portals, however, one of the problems we encountered was how to determine categorisations when scholars differ on the characteristics of each type and even on the definition of what constitutes a portal as distinct from a normal web site with hyperlinks.

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