

14 Economics of Content Provision on the Internet

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INTRODUCTION

While the Internet is considered a valuable means of communication offering the enticing possibility of interaction (one-to-one communication, e-mail), for many people the Web has turned into a primary information resource (one-to-many communication, broadcasting). Most of the information on the Web is either company (public relations) or product-specific information (marketing) to increase awareness. As with traditional marketing media, such information is offered free of charge. However, many companies who generate information (content) on the Internet, which are not their core business, are investing in new possibilities offered by the medium. They consequently face the challenge to transform these opportunities into adequate and sustainable profit (Jones and Navin-Chandra, 1995; Loebbecke, 1996; Loebbecke and Trilling, 1997).

Currently the costs of content provision on the Web is hardly covered by the contribution of Internet sales. The driving force for a Web presence is more the belief that the Web will lead to competitive advantage, or will turn into a competitive necessity in the future (see also Benjamin and Wigand, 1995). In this context, SMEs need to be distinguished from large companies. The latter can, mostly, follow a 'learning approach', being on the Web in order to 'be good at it when Web-based business really takes off'. SMEs, however, can barely invest in using and learning to use a new technology for about one to three years. In the end, they may be good at exploiting the Web, but may face the threat of bankruptcy before being able to harvest their new expertise (O'Connor and O'Keefe, 1997).

From a conceptual point of view, two situations are to be distinguished:

1. The main product offered is not digitisable (cars, coffee, computers, books) and therefore cannot be delivered via the Internet.
2. The product offered consists of information and thus can be transmitted digitally via the Internet (e.g. software, magazines, music, etc.). For such 'Online Delivered Content' (ODC) (Loebbecke, 1999), full Internet commercialisation implies a closed business cycle from 'order' via 'payment' to 'product delivery and receipt' on the net. 'Virtual enterprises' can operate from anywhere on the globe where Internet access is available: the need for a physical presence at a certain location is limited to legal requirements.

In the following the chapter will outline four ways in which companies may generate profit from providing content on the Web. The focus of this chapter lies on companies mainly dealing with non-digitisable products.

FOUR POSSIBILITIES TO PROFIT FROM PROVIDING CONTENT ON THE WEB

Internet activities, and content provision on the Web as a special kind of Internet activities, can contribute to a company's performance in four ways (Loebbecke, 1996):

1. Increased number of units sold
2. Increased margin per unit sold
3. Content sold as stand-alone product
4. Advertising income generated from Web pages

Increased number of units sold

Internet-based marketing and public relations aim at increasing awareness about a company and its product and service range. As with traditional marketing, this is costless for consumers; profit is made when the marketing costs are made up for by additional sales. Currently the largest potential in Internet-based marketing is seen in attracting new customers world-wide and in establishing distant, long-term customer relationships.

In most instances it is difficult to discover how many additional units are sold because of a Web presence. Further, some of

these may be substitutes for 'traditional' sales (internal channel cannibalisation).

As long as overall world-wide or regional sales do not increase, but almost every book store and computer dealer, etc. is present on the Web (with rather different offers), it is not obvious how they all could increase their total turnover. It seems to be more like a football league: every team strengthens themselves during the summer, but by the end of the following season, there are few 'winners', and there will always be some 'losers'.

There is no doubt, however, that Internet-based turnover is predicted to grow tremendously over the next years. But with more efficient business processes and price transparency leading to decreasing margins there is not too much reason to foresee an increase in total (traditional and Internet-based) turnover.

Larger margin per unit sold

Larger margins per unit can be achieved (1) by lower costs (efficiency) or (2) by charging higher prices per unit.

Lower costs may be achieved by using the Web for various processes such as internal communications, receiving orders and payments, or providing customer service (process/business re-engineering) (Hammer and Champy, 1992). Customers could, for instance, download information from the company's Web site and special requests could be answered via (automatic) e-mail. From a more in-depth perspective, most efficiency gains will result from decreased working capital achieved by introducing electronic commerce, e.g. Internet-based activities.

Higher prices charged per unit need to be based on value-added for customers. This means that a particular book, computer or type of coffee that is advertised and sold via the Internet is more expensive than if it were sold via traditional marketing media and sales channels. This notion is the reverse of the more popular idea of selling cheaper via the Internet due to economies of scale, improved transparency, and fewer players in the value chain. The only example of a product sold at higher prices because of a Web presence that the author is aware of is TV advertising minutes, the actual product sold by (private) TV stations to companies that place their commercials (Loebbecke and Trilling, 1997).

Provided content sold as stand-alone product

While classic marketing content is not produced to be sold, companies are increasingly placing other forms of content on the Web – mainly to encourage customers to visit their sites and ultimately buy their products. They could profit from extending their ‘traditional’ product line to information-based products, e.g. providing access to a special database or interactive games (new business opportunity).

The most prominent examples are carefully maintained databases offered by book stores (with mixed commercial success) (e.g. Fillmore, 1997). Depending on the up-to-dateness and the content of such a database, its maintenance costs go far beyond ‘putting a paper-based catalogue on the Web and just updating it quarterly’. More drastic examples can be found when visiting the content offered by TV stations (and newspapers) on the Web. News features as well as sports results go beyond what has traditionally been offered and need almost continuous updating (more than 75 per cent of sports updates have to be done between Friday 6 p.m. and Sunday midnight).

These information resources are free for consumers, who, in turn, are by no means bound, maybe not even encouraged, to watch the respective TV programme or to read the newspaper ‘on paper’. Experience even shows that both the Web pages offered by TV stations and by newspapers are often accessed by those consumers who temporarily or generally do not watch/read the traditional medium.

Different approaches to selling such content offers are possible, the three most popular are: (1) charging per month, (2) charging per actual time visiting the site, and (3) charging per page accessed.

Whether such information-based products primarily reach the end-consumer directly from the company that ‘has the content’ or from intermediaries who repackage the content and maintain the actual sales channel on the Web, remains to be seen. Important is that whoever invests in building and maintaining the contents needs to be able to charge for it, regardless if end-consumers or intermediaries (business-to-business) pay. If intermediaries collect information themselves, manufacturers/designers lose a business opportunity; but as long as it does not involve any expenses not covered by additional income, this goes along with the overwhelming trend of specialisation and outsourcing (with specialised partners increasingly co-operating in a network or virtual organisation).

Advertising income generated from Web pages

As time for commercials is the main 'product sold' by TV stations, the market for advertising space on the Web is also booming (e.g. Quelch and Klein, 1996). Only those companies whose contents attracts a certain number of site visitors can sell additional space to others who then place their ads. While this opportunity for profit is gaining importance, it is mainly suitable for those large companies whose sites are well known and visited, e.g. TV stations, newspapers, magazines, etc. (e.g. Sterne, 1995). It does not appear to be a feasible source of income for the millions of SMEs that also offer content on the Web.

WIDENING THE PERSPECTIVE**Economic value of information and communication technology**

The Internet, and specifically the Web, can be considered as a special form of ICT. Therefore, a comparison of Web usage, specifically content provision on the Web, and ICT usage seems appropriate.

For more than a decade, information systems and information technology have been considered as tools for transforming the way value activities are performed and for co-ordinating different activities (Porter and Millar, 1985).

Brynjolfsson and Hitt (1996) differentiate 'productivity', 'consumer value', and 'business profitability' as measures of IT value. Findings from investigating 370 large firms suggest that IT increases 'productivity' and 'consumer value', but not 'business profitability'. Thus, there is no inherent contradiction in the idea that IT can create value but destroy profits (see also the literature on the 'productivity paradox', e.g. Brynjolfsson, 1993).

The similarity between these research results and empirical findings about the situation of providing content on the Web is remarkable. Without doubt, the Internet contributes to productivity in the context of co-ordination and customer involvement (especially in business networks and virtual organisations where the Internet is used for co-ordination). Many of these phenomena, however, are taken as given by consumers or so widely applied that companies cannot adapt them to competitive advantages and additional profits.

Value creation via electronic commerce

Electronic commerce may be defined as any form of economic activity using electronic connections, spanning electronic markets, hierarchies and networks (Wigand, 1997). Following this definition, companies' content provision on the Web represents a form of participation in electronic commerce.

A widespread perspective of electronic commerce is built on 'markets' and 'hierarchies' (Williamson, 1975) as the two basic concepts for controlling a flow of materials and services between the members of a supply chain or electronic network. In such a framework, 'doing commerce electronically' lowers the co-ordination costs in markets and supply chains (Malone *et al.*, 1987), and hierarchies lead to strengthened commercial relationships between partners (Williamson, 1975; Pisano, 1990; Steinfeld *et al.*, 1995). The traditional 'markets' and 'hierarchies' have been complemented by new organisational forms such as electronic networks, virtual organisations, strategic corporations (Johnston and Vitale, 1988; Davidow and Malone, 1995). While the definitions of such terms vary, these concepts clearly suggest that technological infrastructures provide the opportunity for a broader range of intra- and inter-company business structures.

The current notion of enterprises engaged in electronic marketplaces focuses on achieving competitive advantage in the organisation's internal network and external relationships. 'Components of business value of electronic commerce are related to (1) improvements of products/services for specified market segments; (2) new linking mechanisms to business partners using process and technological innovations; (3) linking external relationships with internal processes; (iv) build upon a flexible, but robust telecommunication infrastructure' (van Heck and van Bon, 1997, p. 211).

Furthermore, others have stated that successful business performance in an electronic commerce environment will not arise simply by adding value across a series of business activities in a supply chain, but by redefining a whole value proposition. 'Redefining the whole value proposition', however, requires to have a value proposition, a competitive advantage which allows to sell products or services and thus to profit. Even in an electronic environment a company's offering ultimately becomes part of the end user's (or buyer's) value chain, a competitive advantage arises through differentiating the company's product or role in the supply chain.

The discussion about electronic commerce seems to follow these paradigms and to often focus on co-ordination needs and business opportunities in electronic networks and virtual organisations. It almost neglects, however, the vast number of companies ('content providers' in the narrow sense of the word) who make the Web to what it is today and who pursue the use of the new infrastructure while (mainly) sticking to their conventional business. Their issues and business needs are barely covered in the large amount of 'electronic commerce' research and publications, and even worse, the current hype about 'electronic commerce' seems to ignore the day-by-day business pressures of many players without whom the electronic marketplace would not be as it is.

Macroeconomic business impacts of the Internet-based commerce

1. *Increase in available information-based products and services:* The current Web hype is fostered by lower entrance barriers to business on the Internet. Infrastructure of large companies are no longer required to market specific products. In turn, this causes an enormous growth of information-based products and services, as well as a tremendous increase in accessibility of non-digitisable goods.
2. *Lower prices (including lower margins):* Market transparency of suppliers, customers, and products causes cost pressures for vendors. Offers from all over the world can be found on-line, (automatically) locating and comparing potential suppliers of products or services on the Internet leads to lower transaction costs (for a detailed discussion see Barua *et al.*, 1995]. This transparency is further increased by the employment of search tools/agents ('bargain finders'). Competition leads to constant pressure on market prices and demands for extra services to be delivered as 'add-on' to traditional service packages. For many suppliers, keeping up with market prices will mean sacrificing part of their margin.
3. *Shifts in financial flows along inter-corporate value chains:* Table 14.1 outlines two scenarios regarding potential sources of income for content providers and the according shifts in inter-corporate value chains. While large Internet players have established one of the two options, small content providers still mainly count on positive, but indirect contributions of their Internet activities to their overall cost-benefit structure. In the terminology of this paper Internet providers 'transport' the information from content

providers to customers, comparable to common carriers expecting payment for this 'intermediary' service. If they manage to enhance their service line beyond transmission, e.g. with value added services, this should allow them to charge consumers in addition to the transmission fee (Barua *et al.*, 1995).

Scenario 1: Content providers receive payment for their content directly from the consumers, who not only have to pay the Internet providers, but also the content providers for the information they access. Competition for customers among content providers would begin to develop; hence, the quality of information is likely to improve. The situation for Internet providers would mostly stay the same, unless – due to the higher 'Internet consumption price' for users – the overall Internet traffic would decrease drastically.

Scenario 2: Content providers receive payment from Internet providers who 'forward' part of their income to the content providers. Internet providers can only 'win' in this scenario if the low price of content and service in comparison to the previous scenario would lead to a drastic increase in overall Internet traffic. The situation for consumers would remain mainly the same.

Furthermore, once it will become feasible and

Table 14.1 Shifts in financial flows along inter-corporate value chains

	<i>Content provider</i>	<i>Internet provider</i>	<i>Consumer</i>
<i>Currently</i>	receives no payment for content provided	receives payment on time/volume basis	content mostly free, pays for time and volume
<i>Scenario 1</i>	receives payment based on content directly from the consumer	receives payment on time/volume basis	pays for content, time and volume
<i>Scenario 2</i>	receives a predefined 'share' from the Internet provider	receives payment on time/volume/content basis and 'shares' with content provider	pays for time/volume

common to charge small fees for products or services. Internet providers will likely shift their strategy towards 'service providers' offering value-adding services (Barua *et al.*, 1995).

4. *Shifts in industry structures:* The integration of the Web, databases, CD-ROMs, etc. allows companies to keep up with corporate giants, or at least offers chances to compete with big organisations. One can do research on new markets, test one's ideas, build close ties to clients, and respond quickly to customers' needs without having to cover the overhead costs of large corporations. In the new marketplace, some players, such as local retailers may be eliminated from traditional value chains. New ones, e.g. for local delivery, will enter the game.

CONCLUSIONS AND FUTURE RESEARCH

Electronic media enable organisations to deliver products and services more cost-effectively and efficiently. In cases where the Internet is supposed to support the traditional business (e.g. book sales), the increasingly sophisticated services offered go beyond pure marketing efforts. They provide additional value to 'customers'. While these services constitute extra costs, they barely generate additional profits. Potential clients take advantage of these services (e.g. search the book store database) without necessarily becoming customers.

Involvement in Web-based activities and increasingly also content provision on the Web seems to have become 'compulsory' in many industry sectors. If eventually all companies achieve significantly lower cost for customised product and service delivery, the result cannot be a competitive advantage, but lower margins for the 'average player' in the sector.

At the core of Internet-based commerce, offering content on the Web has to be attractive for the providers in one of two ways: (1) strengthening a company's competitive position with respect to its traditional products (e.g. higher turnover as a consequence of Web activities, or (2) expanding towards additional, profitable product lines (e.g. selling information/content-based products and services).

In this context, future research should pursue three dimensions:

1. Additional empirical investigations of 'companies on the Web' including their total Web-driven costs and revenues would help to

better understand the current business opportunities and needs in the 'real world'.

2. Further development of concepts and business strategies for companies on the Web taking into account the short and medium term financial constraints and the macroeconomic trend that 'there won't be much business without the Web'.
3. Interdisciplinary integration of rather recent trends and findings stemming from the areas 'Internet-based business' and 'electronic commerce' with conventional IT and economics theories and research results.

'Providing content on the Web' and 'Internet-based commerce' offer outstanding opportunities to stay at the edge of business developments. After the first wave of fascination about the potential offered by the technologies, it becomes time to adapt business processes and economics to its existence. In the medium and long run, new infrastructures will provide support for a large range of traditional and innovative business ideas, and will require new business concepts. Nevertheless, the business idea itself must be economically promising, the pure fact that a company engages in the electronic marketplace has not been and will not be sufficient:

While no single company or business network can eliminate by itself the risks arising from the Web era, each of them can and needs to develop its own proactive strategies to exploit the accompanying opportunities.

T. Middelhoff, Bertelsmann AG, Member of
the Board
(translated from German)

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