The Pricing of Digital Content – What Are the Users Willing to Pay for?

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Abstract: During the past century, the availability to the public of cultural expressions of all kinds passed from scarcity to abundance. With the development and widespread diffusion of technologies to handle digital formats this trend is accelerating. The time available for consumption has not changed though; there are still only 24 hours in a day. Basic economic principles state that if supply exceeds demand, then competition among suppliers will create a downward pressure on prices to marginal cost. This indicates that digital content on the Internet should be available at a price equal or close to zero. There are however two situations where users are expected to be prepared to pay: 1) For digital content of comparatively high quality and where search costs are low, and 2) digital content with a large share in a market characterised by positive networks externalities.

1. Introduction

At the inauguration of the eChallenges e-2006 conference, one of the keynote speakers, Dr Joao Da Silva, emphasised the digital information overload of today. All sectors of the society – corporate, public and private – are contributing to the gigantic supply. Not least the avalanche of user created content is remarkable. To take one example, at July 2006 there were an estimated 50 million blogs, doubling in size every 6 month since 3 years back [1]. Similar trends are observed in traditional media such as printed press: 300 000 new books and 400 000 scholarly journals are annually published around the world [2].

A few generations ago, content was a seller’s market. Printed media were scarce and representations of music or drama were only available by performing artists. Today the situation is the reverse: new information and communication technologies are contributing to an abundance of content available.

From the early days of industrialisation, the commoditisation, copying and distribution of creative expressions such as texts, sound and images have been closely linked to commercial actors with the financial capacity to raise the necessary capital for these processes. With new technologies, content creators may loosen their dependence on publishing houses and distribution channels. The lowered entrance barrier to content creation and distribution makes it tempting for new creators to realize their ambitions.

In recent years the Web has become a platform for a wide range of creative activities. Well-known examples are Open Source Software with Linux, encyclopaedias such as Wikipedia and online communities such as Flickr and YouTube. Both amateur enthusiasts and professionals are found among those contributing with content.

New actors are trying to exploit the commercial potential of digital content. Here they face a big challenge as the key asset – the content – is out of their control, often accessible to anybody without cost. Many established players are also suffering severe problems with their traditional business models.
In the music field, independent record labels offer the free downloading of mp3 recordings, a low quality format, as a marketing strategy to stimulate the sales of high quality CDs. In a similar way many artists distribute mp3 recordings to create a demand for live performances [3]. Software consultants, such as IBM, RedHat and Novell, deliver free Linux operating system as a basis for consultancy services. Software companies offer shareware or free licenses as part of first mover advantage strategy (MySQL). Mobile phone network operators offer entertainment for free or to cost (Tele2), and so do many suppliers of consumer electronics such as Ipod (Apple).

On the one hand, individuals experience an increased exposure to content of all kinds; on the other hand the time available for content consumption has not changed. There are still only 24 hours in a day. As Herbert Simon, a Nobel prize-winning economist, put it, "What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention” [4].

Today the average grocery store stocks about 40,000 different items. So, how do they get attention when the average household buys only 150 items per year? The balance of supply and demand of content has changed, and we are now experiencing a buyers’ market. “Attention economy” is the new tool for professionals to deal with the situation. Anyone who wants to sell something or persuade someone to do something has to invest in the attention market [2].

2. Objectives

It generally takes a lot of work and effort to produce a creative artefact. The associated costs are sometimes referred to as upfront costs or costs of expression [5]. In fact the dominant part of the total costs for creation, copying and distribution is attributed to “the first copy”. This is to say that once the first copy or the design is made, most of the project costs have been paid [6]. The upfront costs are fixed, while the costs of copying and distribution are variable. For mass-culture items, the variable costs are low in comparison with the upfront costs and diminishing with the increase in scale. Accordingly, the marginal cost of the copying and distributing of cultural content is generally very low.

Assuming competitive market conditions, the price of content should reflect the marginal cost. This means a low price for most commoditised cultural artefacts. With a price significantly higher, monopoly rents are created, and the level of consumption will be below what is considered optimum according to economic theory.

But what happens if the price does not cover the initial costs of the creative processes? If the creators are not compensated for their efforts, how could anybody expect them to continue with their creative expressions? With a price equal to marginal cost, are we not likely to end up with an underproduction of cultural content?

According to this logic, intellectual property rights (IPR) represent a solution. A temporary monopoly on commercial exploitation paves the way for monopoly rents, which in turn provides a fair compensation for the initial creative efforts. Supported by a copyright regime the creator is persuaded to go on being creative. Thus the IPR can be regarded a compromise between short-run underconsumption and long-run underproduction [5].

Now, the observed abundance of available content does not seem to support the worries of a long-run cultural scarcity, indirectly expressed by the IPR regimes. On the contrary, an increase in competition among content providers should be expected due to the accelerating supply. Pressure on prices should follow, ultimately to the cost of the external channel in which the information is embodied; the printed newspaper, or the CD-recording. For digital content transmitted on the Internet this cost is approaching zero. [7]

The pertinent question that arises is whether users should pay anything at all for digital content, and if this is the case, why? And what will be the impact on the demand for
traditional content if competing digital formats are available for free? Will there be a similar squeeze on prices of traditional formats as well?

The new situation will certainly affect the supply of content. What will be the reactions of the established content providers? Will there be a change in content supplied?

The aim of this paper is to contribute to a better understanding of the factors influencing the price of digital content, and of the economic and social mechanisms behind. The main actors – creators, publishers and users – and their situations and driving forces will be described and analysed. The motives and logics behind the offering of content on non-market and non-exclusion conditions, i.e. for free and without exercising exclusive right, are of particular interest.

3. Methodology

The discussion is principally based on the framework of traditional economic theory. The nature of costs, revenues, market situations and their dynamics in an each day more digitalised world will be examined. This will provide a starting point for the analysis of motives and strategies of creators and publishers regarding their supply of content.

In order to understand why somebody is giving away something for free, and in conflict with the prerogative of Homo oeconomicus, elements from other academic disciplines will be involved in the pursuit of explanations to this apparently altruistic behaviour. These are found in the works of scholars in sociology, psychology, anthropology and ethnography, parting from their respective theoretical frameworks.

First some basic characteristics of the term content will be described and discussed.

4. About Content

4.1 What is Content?

Content is an amorphous term; it could mean almost anything. This may be the reason behind its popularity in the context of computers and communications. Here, digital content is the representation of all those 0 and 1 digits stored on the hard disk drives or transmitted on the Internet, i.e. almost anything.

Content in a general context is used more or less synonymously with information. In the literature a clear definition of information seems to be lacking as well [8]. Creative expressions or cultural expressions are sometimes used with a similar meaning, covering both the artefacts and practices of intellectual and artistic activities. Text is another such term; all cultural artefacts could be considered as texts.

One particular property of content is that it never exists except in embodiment. This embodiment could be a good or a service. The good could be a CD or a marble sculpture. The service performed could be that of a theatre crew or somebody presenting the weather report on the TV. When the last embodiment is dispersed, the content is lost forever.

Content is often represented in a chain of embodiments. A piece of music embodied in a music score (a good) is sung by a soprano at the opera (a service) where the performance is recorded and broadcasted on the TV (services) and finally recorded on a video cassette (a good) by an opera enthusiast at her home.

Another way to grasp the notion of content is to describe the industries involved in the creation and distribution. Here too, lots of options are available: creative industries, cultural industries, media industries or copyright industries. To a great extent the definitions are overlapping, but always with some minor variations [6].

To take one example, copyright industries are defined by IPR legislation, including literary, dramatic, musical and artistic works, published editions of works, sound recordings and films, videos and broadcasts. Another term that is dealt with in this paper is attention
industries, with films, television, music, print media (book, newspaper and magazine publishing) and advertising [2].

4.2 Content from Creators' Perspective

In the industrial world creative works have traditionally been made available to the public by the activities of a chain of professionals, the creators included. The creators may come from the cultural fields, such as artists, composers and authors. Other groups, e.g. software engineers and journalists are also creators, not least in the sense that the fruits of their efforts are protected by the IPR regulations.

But creative activities are not only the privilege of professionals; it has always attracted enthusiasts and hobbyists as well. And the appearances of electronic equipment and computer-aided tools to moderate prices during recent decades have revolutionized the opportunities for non-professionals to practice creative activities. Desktop publishing tools, equipment for the recording and processing of music, photos and videos are such examples. This means that one of the major cost categories associated with creative expressions – the tools – has lost much of its former exclusivity.

Then what about the other big cost category, the time invested by the creator? Actually the economic situation of many professionals does not differ very much from the situation of the hobbyists. In many cultural trades, it is difficult even for skilled craftsmen to subsist on the revenues from their creative activities. According to a recent study of the sources and distribution of incomes among Swedish creators, complementary jobs are necessary for a majority. Furthermore, the income distribution is extremely uneven, with a few creators receiving an unproportional big share of the total incomes of the trade [9]. The findings are in line with the Superstar-hypothesis, stressing the importance of the capacity of diffusion of modern media technology together with preference-shaping activities among sellers [10].

Another result from the Swedish study is that non-monetary incentives are more important for creators than for other professional groups. Similar results are found in a number of reports on the creative processes of Open Source Software [11] [12].

Important intrinsic motives such as enjoying the activity or the developing of one’s personal talents are found behind many creative processes [14] [15]. A third important non-monetary motive is the strive to establish and maintain social relations. This constitutes a main driver for many virtual communities [16] [17]. According to a recent Swedish study of on-line communities, practically every commercially successful community has started as a hobby project [18].

To sum up: most creators accept non-monetary compensation for their work. With an alternative expression, the creative content is offered on non-market conditions. The majority of creators depend on other sources of revenues. Amateur singers who are funding their music activities by working as business accountants is quite commonplace. However you never hear of people working as singers to finance their accounting hobbies. [19] [9].

4.3 Content from Publishers' Perspective

The role of a publisher is basically to provide an embodiment to a creative expression and to administrate the distribution to the final user. Depending on the type of content and on the consumer target group, the embodiment may differ a lot. As earlier mentioned, it could be both a service and a commodity. Thus the cost of publishing may also vary. It is very high for an opera rendition, low for a CD and insignificant for a mp3-copy on the net.

On a commoditised market such as literature, film or music, the unit cost for producing let’s say an extra CD-record is very low in comparison with the upfront costs. This is of course under the assumption that the creator has been paid by the publisher.
The effect of this particular cost structure is that when a sufficiently large number of units have been sold to cover the upfront costs, the subsequent sales a very profitable. However, the publisher’s dilemma is that it is seldom possible to predict if a particular cultural product will sell enough to reach break-even.

The traditional way to deal with this risky situation is to offer a varied supply. The publisher expects the sales for most items to be mediocre, in many cases not even enough to cover the upfront costs. This realism is combined with the hopes of making greater earnings on a few successes so that the poor performance of the rest is compensated. In this strategy the exclusive rights provided by copyright regulation play an important roll as a protection against competitors’ cherry picking.

This strategy is often enforced by preference-shaping activities aiming to concentrate the sales on relatively few objects. This is particularly the case on a mass-culture market, as described by the Superstar-hypothesis. Harry Potter in literature, Britney Spears in popular music and Pirates of the Caribbean in film are such examples.

With the advent of user-generated content on the web, alternative strategies have been developed. They differ from traditional publishing as the content is supplied and distributed on non-excluding conditions. This means that users are allowed to copy, use, modify and re-distribute the content, often free of charge. Several cases were mentioned in the introduction: record labels offering free downloading of mp3 recordings as a strategy to stimulate CD sales, free software from companies such as IBM RedHat and MySQL, encyclopaedias such as Wikipedia and on-line communities such as Flickr and Youtube.

The common denominator of these commercial actors is that they apply other business models, which means that they make their revenues either from other customers or from providing other products or services to their traditional customers. Examples are on-line communities getting their major earnings from advertising, while revenues from consultancy services are important among software companies.

4.4 Content from Users’ Perspective

If content has a value to the user, then she is often prepared to pay for it. For a soccer enthusiast, the experience from a stadium seat is worth quite a lot of money in comparison with watching the match on the TV lying in a sofa. Exactly what she is paying for is not always easy to grasp, but at least we may conclude that there are quality differences, more or less subjective, between different representations or formats of content. And this quality dimension can be commercially exploited, providing a motive to set a price on the content.

Consumption of content has an intimate link to time. Being experience products, the consumer will not be able to know the perceived value until the content is assimilated. I have to read the book and watch the TV-programme in order to decide if I find it worth while or not. This requires time. Anything that reduces uncertainty has an economic value, particularly if it has a predictive quality [6]. Due to the abundance of content, any reduction in the search costs becomes increasingly important. This is also something people are prepared to pay for.

Thus the willingness for users to pay for content depends on the perceived experience quality and predictive quality. At the same time it is important to stress that the propensity to pay is independent of the cost of creation, production and distribution of the content.

But content has also a substantial cost of use. That is to say, once a consumer has acquired a desired body of content, then she has to spend time and other resources to assimilate it. For some of these resources direct expenditure are involved: if I want to watch a DVD-film at home, I need to buy the necessary equipment.

Time is money. The time it takes to consume the content, including the efforts to learn to handle the equipment, can be monetised as opportunity costs. By watching a film I must refrain from reading the newspaper or working extra hours. Thus audience attention is
limited and zero-sum (Our children seem to overcome this restriction though, when they try
to do their homework while simultaneously watching television, listening to music, and
sending instant messages over the Internet) [2].

Meanwhile users are consuming the content, the users’ attention is indirectly consumed
by the content provider. This interdependence between providers and consumers of content
has given rise to a field of economic analysis called attention economy. Both on the Internet
and in more traditional media like broadcasting or printed press, the attention of the viewers
is exchanged for money. Anyone who wants the attention of a large group of customers can
get it by monopolising their TV screens, Web pages and mailboxes by paying.

In this new economy, capital, labour, information, and knowledge are all in plentiful
supply. It is easy to start a new business, to put up a Web site, to design advertisements and
 commercials. What is in short supply is human attention. Telecommunications bandwidth is
not a problem, but human bandwidth is [2].

5. Discussion

In a market characterised by strong competition among publishers, the price of content will
be reduced to the cost of production and distribution, but without compensating for upfront
costs. As a consequence, digital content distributed on Internet will assume the price of
zero. To avoid running into deficit, publishers have to find alternative sources of income.

One important non-monetary asset is the attention of the consumers, which could be
transformed into revenues from advertising. Instead of selling cultural expressions to
consumers, the publishers will offer the consumers’ attention to other commercial actors.

Who are the new clients? In principle those profit-making suppliers that are capable of
pricing their offerings above marginal costs. Here we find many traditional industries
offering tangible goods and services, such as foodstuffs, cars, travel agencies etc. Consequentially, the cost of content creation will ultimately be paid by the consumers of these
goods and services. It should be emphasized that there is nothing new in these business
models. Many media industries such as printed press and broadcasting are making their
revenues in this way since a long time ago.

Another consequence is that many traditional firms will engage in publishing activities
themselves instead of being dependent on others. We can see broadband and telecom
operators offering mp3 music to clients, and software consultants supplying software for
free.

We have observed how digitalised content is supplied on non-market and non-excluding
conditions. These tendencies are likely to continue, and for several reasons. With the
economies of scale in the consumer goods mass market, the role of advertising is crucial. Due
to the information overload, popular culture in digital form will continue to be a factor
of success for getting attention. In the field of user-generated content, we are just in the
beginning of a new era [1].

To sum up, most arguments indicate an increase in access to digital contents that are
free of charge. Gradually it will be more difficult for a publisher to get paid. And when
consumers’ attention represents a stronger financial asset than the content supplied, the
copyright regime will accordingly lose its importance.

The question is if there will be any exceptions to this general observation? The answer
is yes, we have seen situations where consumers are prepared to pay for digital content.

1. Quality matters. The traditional CD proves to have sound and multimedia qualities
that are superior to the mp3-file. Symbolic values of the physical good are important to fans
and collectors [3]. A cinema offers a superior experience in comparison with a DVD-
version on the TV set. Furthermore, we have seen that services that facilitate the selective
process associated with experience products represent an extra quality and an added value
to the consumer which could be appropriated in monetary terms.
These two aspects taken together – a superior experience quality of content and reduced search costs – enter in the traditional concept of *branding*, i.e. the symbolic embodiment of all the information connected to the product as a tool to create associations and expectations around it [20]. From this perspective Harry Potter, Britney Spears and Pirates of the Caribbean are brands, enabling the publishers to charge the consumers a price well above what is suggested by analysing marginal costs. Legal strategies become vital again as brands and IPR are intimately linked together.

2. By acquiring a large share of a market, a supplier may get paid for its products or services despite the fact that there are competing alternatives available free of charge. This is sometimes called *first-mover-advantage* and highlights the social aspects of content consumption. This is the case for markets characterised by positive network externalities, meaning that the perceived value of using a product or a service increases with the number of users. This is easily understood for interactive games such as World of Warcraft, but provides also an explanation to the strong position of Microsoft Office, despite the fact that technically equivalent alternatives are available for free.

First-mover-advantage is achieved by the integrated activities of social networks. So is branding. A brand represents an image, generally created by the producer. However, to be successful, this image not only has to be accepted by the consumers, but also enhanced and diffused by networking consumers.

These observations bring us to a somewhat surprising conclusion about the dynamic power of social networks: on the one hand they are challenging established business interests by creating content on non-market and non-excluding conditions. But social networks may also represent considerable market inertia by conserving the market dominance of products and services that from the perspective of economic efficiency is far from optimal.

6. Conclusions

Contrary to the underlying assumption of copyright protection as a guarantee for adequate supply of content in a dynamic perspective, we experience an accelerating access to creative content, deliberately supplied without exclusive rights. The main challenge for most actors – creators, distributors and consumers – is how to find strategies in a situation of abundance, not scarcity, of content. How to attract the attention of consumers has become the overriding problem for suppliers, and a prerequisite for generating revenues.

We have seen how important publishers of digital content turn to alternative business models. This makes the situation difficult for those actors that stick to traditional models based on exclusive rights. It is plausible that many of them will modify or even abandon their present strategies based on IPR. But the tendencies are not homogeneous. We can also observe successful attempts to defend traditional business models by strategies of branding and first-mover-advantage.

The topic of digital content and new business models is currently experiencing a dynamic phase of development. Further research will focus on empirical studies on advanced users of the Internet. Studying their interactive behaviour on the Internet will enable us to identify new trends at an early stage and help us understand what lies ahead. A statistical survey directed to a selection of 4 000 students and staff at 32 Swedish universities will be carried out in late 2007. The statistical data will be supplemented with in-depth interviews and focus discussions. This will enable us to verify hypotheses and produce explanatory illustrations and examples of different users’ relationships to the Internet. Preliminary results will be published in mid-2008.
Acknowledgements

This work was supported by The Swedish Governmental Agency for Innovation Systems (VINNOVA) IKT programme.

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