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Implications of social justice for the pricing of information goods

Abstract:

During the past few years information has increasingly become a commodity. As a commodity the atypical cost structure of information goods in competitive markets result in the price of reproduction of information goods tending to zero implying that market failure is highly likely. Intellectual property rights prevent such market failure by protecting the ability of creators and/or distributors to charge for information goods and as such serve to stimulate and support the creation of information. But information also plays a vital role in enabling people's human rights in their everyday lives and it is therefore of paramount importance that such information be accessible. Pricing of information is one of the main factors determining accessibility and pricing strategies should aim to maximise access not just profit and thereby contribute to a socially just world. This paper examines the nature and pricing of information goods and suggests differential pricing of information goods based Rawls' principles of social justice.

Agenda

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- Relevant publications:
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The nature of information goods in the marketplace

Information goods, used here to denote information products, have certain characteristics that distinguish it from other economic goods. First, an information good is an ***experience*** good, that is, it must be used or consumed in order to demonstrate the good and to determine the associated value. Second, information goods are typically ***non-rival***, that is, one person's consumption does not diminish another's ability to consume the same information good. Third, information goods can also be ***non-excludable***, that is, one person's consumption cannot exclude another person from consuming the information[1] (or as Barlow[2] put it "information can be transferred without leaving the possession of the original owner"), particularly when in electronic format. In economic theory goods that are both non-rival and non-excludable are called public goods[3].

Individual gain-seeking in the market does unfortunately not lead to efficient results with respect to public goods:

- Consumers can take advantage of public goods without contributing sufficiently to their creation (this is the so-called free rider problem); and
- The production of public goods results in positive externalities which are not remunerated. Since private organisations can't reap all of the benefits of a public good which they have produced, there may not be sufficient incentives to produce it.

Thus problems in the production of public goods may occur which in turn may lead to market failure. Market failure[4] is a term used to describe a situation in which markets do not efficiently allocate goods and services, where markets are unable to provide goods in the desired quantities, or situations where market forces do not serve the perceived public interest.

One solution to prevent such market failure is to create intellectual property laws, such as copyright or patents. The aims of these laws are to provide a legal mechanism to remove the natural non-excludability of information goods by prohibiting reproduction thereof for a limited period of time and at the same time to encourage the creation and sharing of non-rival goods. In this manner public goods are turned into private goods. Although intellectual property laws can solve the free rider problem (assuming the enforcement thereof), the limitation of these laws is that they, together with the unique characteristics of information, result in a propensity for monopolies or dominant players in the market to be created.

In addition to judicial means, technological developments can also provide the means to make information goods excludable, for example, encryption allows broadcasters to sell individual access to their broadcasts or digital rights management (DRM) allows control of the information goods' use by consumers according to the creators' and/or distributors' preferences.

Pricing of information products and services

One of the main mechanisms through which resources are allocated in a society is price[5,6]. Price is the quantity of payment or compensation for an economic good. Competitive markets drive prices of all economic goods toward the marginal cost. Information goods, however, tend to have high fixed costs but low marginal costs, that is, creating the first copy is expensive but making a copy is relatively inexpensive. This implies that the price of information goods tend to zero. From an organisa-

[1] Varian: Markets for Information Goods.

[2] Barlow: The Economy of Ideas: Selling Wine Without Bottles on the Global Net.

[3] Note that goods termed public goods may be produced by the public sector but also by private individuals and organisations, by civil society, NGOs or other collective action, be available naturally like air or may even not be produced at all.

[4] Note that market failure is a somewhat subjective term: what one considers to be market failure may not be considered market failure by another since efficient resources distribution depends on the prior conceptions of what the distribution ought to be.

[5] Du Toit: Developing a price strategy for information products. 162

[6] Rowley: Principles of price and pricing policies for the information marketplace. 179

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tion's perspective an efficient price is a price that is very close to the maximum that consumers are prepared to pay in order to maximise profitability and must therefore be based on the value it offers the consumer. The rule of thumb is that the more it is worth to an individual the more that individual should pay to acquire it.

Price is therefore also a measurement or function of the value that a consumer (buyer) places on the good exchanged[7,8] . Value is intrinsically related to the worth derived by the consumer or put another way: value is a measure of the worth that is based on the utility derived from the consumption of the good. Utility-derived value allows goods to be measured on outcome instead of demand and supply. The value that information can have varies and the same information can have more than one type of value which is determined by the use towards it is put.

According to economists, price discrimination[9] is a pricing strategy that is particularly appropriate in monopolistic markets since the seller can charge higher prices than would be possible in a competitive market. According to Shapiro and Varian[10] information goods can generate more revenue for sellers if they are offered in multiple versions catering to potentially different values consumers can place on a particular information good thus resulting in different prices. Price discrimination entails the sales of identical goods or services at different prices from the same provider to different groups of consumers or segments.

Shapiro and Varian[11] are of the opinion that a particular type of price discrimination is the only pricing strategy for information goods that can succeed in the marketplace, namely, second-degree price discrimination or what is popularly called 'versioning'. The perceived quality and its value or utility to the customer determines the customer's willingness to pay a particular price and in this way customers segment themselves:

> *"The version they choose reveals the value they place on information and the price they are willing to pay for it"*[12]

Such versioning can be performed on a basis of features offered, levels of performance, or timeliness.

Because the same information can have multiple uses and is non-rival, creating effective rate fences[13] between the uses in terms of access is a particularly difficult undertaking; price discrimination is thus more common in services, where resale is not possible. Although consumers can jump the rate fence with respect to information goods[14] this does not seem to present a major problem as it is still widely used with respect to information goods, for example, by book sellers like Amazon and publishers like Elsevier.

Next Rawls' principles of social justice are examined before considering the implication thereof on the pricing of information goods.

Social justice

According to the social contract tradition, justice is derived from the mutual agreement of everyone concerned or from what they would agree to under hypothetical conditions including equality and absence of bias. John Rawls[15] argued from a hypothetical "original position" where everyone concerned would be behind a so-called veil of ignorance in order to arrive at principles of justice that would

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[7] Du Toit: Developing a price strategy for information products. 162

[8] Rowley: Principles of price and pricing policies for the information marketplace. 180

[9] "Price discrimination" is a technical term meaning differentiation in price. It does not imply unfair or biased behaviour.

[10] Shapiro and Varian: Versioning: the smart way to sell information. 109

[11] Shapiro and Varian: Versioning: the smart way to sell information. 109

[12] Shapiro and Varian: Versioning: the smart way to sell information. 110

[13] Rate fences prevent individuals from a higher price segment from purchasing goods at the prices available to members of a lower price segment. This is possible either by the individual purchasing the product at the lower price directly from the seller or indirectly by purchasing from an individual that bought from the seller at a lower price.

[14] Britz and Ponelis: When is it good to steal? A Moral Reflection on Current Trends in Intellectual Property. 29

[15] Rawls: A Theory of Justice.

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be fair to all. He argues for the fair distribution of social goods in a society. In the context of this paper, society is seen as the global society as a whole since globalisation has essentially rendered the world a single market where organisations operate across borders.

Approaching justice as fairness is necessary to ensure that the basic rights and liberties of all are protected and that should social and economic inequalities exist these should still be to the benefit of all. Rawls formulated two principles of justice to ensure fair distribution of social goods in a society. These principles state that:

- *"Each person is to have an equal right to the most extensive total system of basic liberties compatible with a similar system of liberty for all"*[16]
- Social and economic inequalities that do exist are to be arranged so that they can be reasonably expected to be to everyone's advantage and be attached to positions and office that are open to all[17].

These principles are in accord with the basic economic problem namely to:

> *"allocate resources among members of the society to maximize the welfare of the society as a whole. To achieve this welfare objective, each resource should be utilized to perform a function in order that it contributes most efficiently to society"*[18]

The author proposes that these two principles of Rawls be used as a moral guideline to ensure that pricing information goods is socially just.

Socially just pricing of information products and services

Information can be used for many different purposes, for example, education, entertainment, and marketing, but some purposes are more fundamental than others and leads to the concept of essential information that is defined as:

> *"information related to the basic minimum needs of humanity, information tools for trade and economic development, information essential to the development of backbone industries, basic science and survival services in health, education, welfare, agriculture and labour"*[19]

Thus information can be essential to human survival. In this context the information goods are very valuable and thus should translate into a high price. However, such prices will most likely exclude people with limited or no financial means from deriving any utility from them. Affordability plays a central role in the availability and access to information goods and is therefore a central to the concept in an information society and as such should be just.

According to the first principle all people are fundamentally equal, have equal intrinsic human rights together with the freedom to exercise them without infringement on the similar rights of others. These basic rights ought to form the foundation of the fair distribution of social goods in society. The right to access to essential information can be seen as such a basic right because of its essential nature in satisfying all basic rights and as such should be taken into account in the pricing of information products and services.

The second principle implies that information goods can be treated as commodities and be distributed and used unequally in a society. Thus fair compensation for authors through intellectual property rights is accommodated and the inequalities arising out of the competitive value of information justified. But there are some provisos: first, such information ownership rights are allowed only when it is to the benefit of all[20] and should this not be the case, it is unjust. Second, there should at least be equal opportunities for everyone to access essential information and have the opportunity to contribute as a creator of information goods. Last, the permissible inequalities are always secondary to the first principle[21]. The author is therefore arguing that the right to access to essential information can and must take precedence over the right to ownership of and profit from of information.

[16] Rawls: A Theory of Justice. 60

[17] Rawls: A Theory of Justice. 61

[18] Du Toit: Developing a price strategy for information products. 162

[19] Zielinski: The Changing Role of Information in Development.

[20] Rawls: A Theory of Justice. 64

[21] Rawls: A Theory of Justice. 65

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Since price discrimination as a pricing strategy for information goods does comply with the implications of the second principle it is important that organisations understand and take into account the implications of the first principle to ensure social justice is done. However, when second-degree price discrimination is very efficient production can be expanded but output can also decline when discrimination is more effective at extracting surplus from high-valued users (paying a premium price) rather than expanding sales to lower valued users (paying a relatively lower price). Thus the problem arises that those who are unable to pay the price that maximizes profit do not get access to the good.

Another form of price discrimination, third-degree price discrimination or group pricing, is thus more appropriate. With third-degree price discrimination selected groups with a lower willingness to pay, for example, senior citizens, students, veterans and others, are offered special discounts. Similarly, groups in both developed and developing countries can be offered such discounts particularly on essential information. This approach is arguably more profitable for the society as a whole, but it might be difficult to prove that it will maximize profits or efficiency for organisations that implement it. Although it is often implemented as a voluntary gesture, this approach to pricing can more easily be motivated to shareholders given the emphasis on ethics in business and corporate social responsibility since this approach is more socially just than the status quo. However, this does imply that rate fencing mechanisms must be effective to also ensure the economic survival of the organisations involved.

Conclusion

Rawls second principle justifies inequalities in a society but these cannot be to the disadvantage of those less privileged. Thus different goods with different prices are acceptable; pricing of essential information goods should be such that the less privileged price-sensitive consumers can also be accommodated. Third-degree price discrimination rather than the more popular second-degree price discrimination result in pricing of information goods are more socially just.

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