

**Collective Consuming:  
Consumers as Subcontractors on Electronic Markets**

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ABSTRACT AND KEYWORDS	
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# **Collective Consuming: Consumers as Subcontractors on Electronic Markets**

With the Internet, the relation between the consumer and retailers or producers changes. The general expectation is that consumers will benefit (Kelly 1998, Malone et al. 1987, 1989), for one as a result of an increased range of products offered and thus a higher chance of one's preferences being met. Possibilities for firms to cater to the demands of ever smaller niches in the market increase. Customisation entails, however, that retail businesses in electronic markets use information about the preferences of consumers to alter products competitively. Consumers will have to invest time and energy in establishing relations with certain retailers by providing them with information about their own wants; e-tailers or producers will collect and process consumer-derived information easily and cheaply using information technology.<sup>1</sup> Firms may, on the basis of such information, employ the instruments of product differentiation and price discrimination (Varian 1996).

In this short article, I will argue on the basis of most particularly but not solely transaction cost theory that there is also a tendency in the digital economy that counters the intuitive and optimistic beliefs about the effects of the use of IT for consumers. Consumers become locked into their relationships with e-tailers and ultimately become dependent subcontractors to e-tailers, able to switch to competing vendors only at relatively high cost.

## **1. Digital Markets**

Many scholars have argued that Internet or electronic markets will be different markets from the markets we are all very familiar with. It is now clear, however, that emerging electronic markets will not resemble the perfect markets of economic theory. Internet markets will not have an infinite number of producers selling their wares to large numbers of consumers without being able to influence prices, profit margins will not dwindle, intermediaries between producers and consumers will continue to exist (Dolfsma 1998). The information goods exchanged on information markets are easily and cheaply reproduced and altered, ensuring that a plethora of goods are available on the market. In addition, information goods do not

deteriorate with use, and so the difference between first-hand and second-hand goods is impossible to make. The signal that the price on a second-hand market for a particular good gives to consumers about the quality of the first-hand good is diminished greatly (Whinston et al. 1997). Consumers will need others to determine the quality and value of the goods for sale on electronic markets.

A well-known, mainstream economic theory furthers our understanding about how consumers and the intermediaries (or suppliers) interact on electronic markets. Transaction Costs has developed after Ronald Coase's seminal article that first appeared in 1937. In this article, Coase asks what determines the limits of the firm - where does the market end and where does hierarchy start, and why. In addition to production costs that might be higher if activities are all undertaken within one firm, Coase and his followers point to transaction costs involved in establishing and maintaining market relations between firms. Coase's received a Nobel Prize in Economics for his research, and Oliver Williamson (e.g. 1975) has stepped into his footsteps. This theory does tends to take the market as a default and tends to convey the message that markets favour economic development and consumers more than hierarchical relations in (large) firms do. It is ironic to see how this theory actually predicts that the position of consumers weakens.

The Transaction Costs argument may be summarized as follows. In market transactions, both parties involved tend to have to make investments. An important issue in Transaction Costs Theory is the extent to which one of two cooperating parties has to make *idiosyncratic* investments in order to be involved in the exchange. To the extent that a party does make such investments, he is vulnerable and may be blackmailed by the other, as he faces high switching costs in case he wants to move to a competing party. This is called the 'hold-up' problem. The idiosyncratic investment by one of the parties decreases the number of alternative partners he effectively has. As all parties involved are believed to be opportunistically motivated, the other party, sensing the opportunity that arose due to idiosyncratic investment by the first, will seize it.

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<sup>1</sup> I will use the terms e-tailers, intermediaries, and producers interchangeably when referring to the party that is relates directly to the consumer.

## **2. Consumers as Subcontractors**

On electronic markets consumers continuously provide information about their product preferences and their willingness-to-pay. Firms can and do make use of that information directly in altering the (bundle of) product(s) they offer, and the price they offer it for. Firms may need substantial investment to actually collect and analyse the data thus generated, but this investment is not idiosyncratic. Rather than the trial-and-error process of taking a new product to the market and waiting to see if there will be demand for it, firms now know (much) more about their customers. In fact, the customers are intricately implicated in the production process; they become subcontractors. The investment made by the consumer is idiosyncratic: they cannot, at the moment at least, demand that their files be transferred to a competing firm if they so chose.

If consumers can be perceived of as subcontractors, what insight does that yield? I will argue that consumers are likely to become locked into positions where they find themselves more dependent on suppliers (producers, but more likely intermediaries) than the other way around. At the same time, however, suppliers are limited in the extent to which they can wield their market power since demand will become more volatile in electronic markets. The latter effect does not, as I will argue, outweigh the former. If appropriate, I will refer to the market for music products, which is exemplary for how electronic markets will develop (cf. *The Economist*, 1997).

In emerging electronic markets consumers are flooded with information that they need to filter and qualify. Intermediaries are in a much better position to perform these tasks than consumers themselves. Not only will they be able to exploit economies of scale and scope in gathering and interpreting information about products available on the Internet, but they will be able to strike deals with upstream suppliers to consider their products and bring them to the attention of consumers. Google's sponsored search results are a case in point. Intermediaries' position will depend on their reputation in both the market where they buy products (information, usually) from suppliers, and where they sell to final consumers. Consumers in their turn, will appreciate the selection of information done for them by these intermediaries and will be willing to pay for these services, either directly or indirectly.

With the use of the preferences that consumers reveal by their implicitly or explicitly stated choices, the intermediaries that form the last chain before the consumers are able to construct detailed consumer profiles. Answers to questions, information about previous

purchases, as well as clicking behaviour, are valuable resources that intermediaries can use to customize their products as well as their sales efforts. Since contemporary hardware and software become increasingly sophisticated, information gathering and subsequent profiling on the basis of that can be automated to a significant degree. Consumers' profiles that intermediaries are able to construct become increasingly focused on single individuals. Indeed, firms' overall strategies are increasingly informed by such considerations – Amazon may be the best known example of this. As consumers are, as such, increasingly involved in the production process itself - especially in the design and marketing aspects of it - one may for that reason perceive of them as subcontractors to the intermediaries or suppliers.

Consumers and intermediaries may both benefit from these developments in electronic markets. Consumers benefit because they can save time searching for the products they want and will even be offered items they might like but had not considered or known about until then, of a kind and quality that meets their preferences to higher degrees. Intermediaries will particularly benefit, however (Dolfsma, 1998). They are crucial gatekeepers as they control an important funnel of attention that consumers rely on to determine the quality and value of information goods (c.f. Crane, 1992). It will be difficult for upstream suppliers to go around this bottleneck and reach consumers directly or establish their own reputed intermediary. Intermediaries that have established a reputation have an advantage over new entrants in that they have already established links with (potential) consumers. Reputation is an important means by which to appropriate the benefits from a market (Dolfsma 2004).

The benefits accruing to firms as they use information about their customers relates to their increased ability to, of course, differentiate their products according to customers' wishes, but most importantly to their ability for price discrimination. In Figure 1, OB is the prevailing market price; OD is the quantity of goods exchanged in the market. Price discrimination means that a firm is able to charge different prices to different groups (third order price discrimination), to different individuals (second order price discrimination), or even to a single individual at different times or for different quantities purchased (perfect or first order price discrimination). In case of a single price for all consumers in the market, triangle ABC is 'consumer surplus': some consumers who now buy the product would be willing to buy the good at a higher price. Triangle CDE is 'deadweight loss': some consumers would like to buy the product, but not at the prevailing price. Price discrimination means that the producer appropriates the consumer surplus and/or the deadweight loss triangles in Figure 1, depending on the kind of price discrimination employed. This may be welfare enhancing if more parties will be persuaded to buy the goods involved, parties that would not purchase at price OB (Schmalensee

1981, Varian 1985). If existing customers buy more products than they would without price discrimination, this also entails that welfare for society as a whole has increased due to the use of price discrimination. Whether these preconditions are met in actual fact is difficult to establish, but seems unlikely. Welfare is defined here as the consumer surplus such as triangle ABC in Figure 1 *plus* the profits in the relevant market signified as a part of OBCD (Schwartz 1990). Decreased consumer surplus may be compensated by increased profits, and vice versa (see Romer 2002). In addition, a decrease of revenues OBCD need not signify decreased profits.

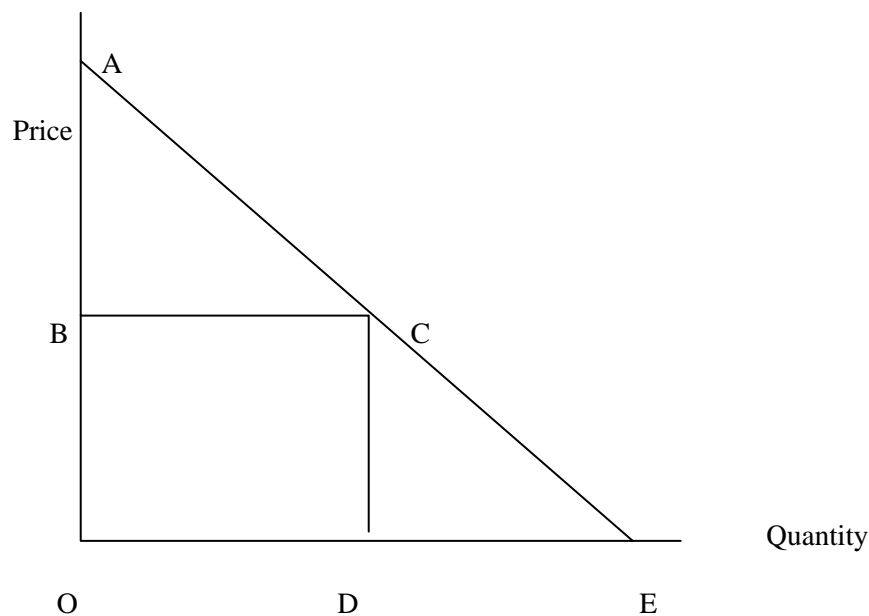


Figure 1: price discrimination.

Given that digital products can easily be reproduced and transmuted, and do not deteriorate if used or copied (Whinston et al., 1997), customisation of them is progressing and will continue to do so in the future. Consumers, however, need to convey information about themselves in order to secure these benefits of customisation. Information may be conveyed by their behaviour as they move from Web site to Web site, it may be revealed by the speed with which they make these moves, and it may be explicitly given by consumers to intermediaries in response to questions posed. However this information is conveyed, it means much more investment in terms of time and money on the part of consumers than on the part of intermediaries. Intermediaries will do much of the information gathering and classifying by the use of special software. The possibly extensive databases, the content of which may be protected under copyright law (Maurer, Hugenholz & Onsrud 2001), that are thus constructed



can subsequently be used to fine-tune marketing efforts and offer customers products that will meet their preferences in better ways. As a bonus, intermediaries may also offer to their "clients" or customers related products in which some interest may have been expressed. By doing so, firms such as Amazon will not only generate additional revenues much more efficiently than they would if they had not used profiles, but they will also add to the profiles that they already have of people by monitoring the way in which customers reacted to the offers.

Since the relative cost of investing in a market relation between intermediary and consumer is much higher for the latter than for the former, and it is consequently unfavourable for a consumer to switch to another intermediary; the investments of consumers can be considered as what Williamson calls idiosyncratic investments. These investments are idiosyncratic, because discontinuing the business relation in which investments were made and starting one with another intermediary means that the consumer has to enter into a process of providing implicit or explicit information about his preferences to this new partner afresh. The intermediary does not need to make additional investments if and when another consumer presents himself. Indeed, even the information about a consumer who has severed the relation may still be used by the firm to create profiles of consumers better and faster. In the conceptual framework that Williamson develops, such idiosyncratic investments make the party undertaking them dependent on the other party in the relation; the party is locked into a relation. This second party may then use the market power available to extract higher profits from the relation.

Before making the investment, consumers may therefore need to be persuaded of the benefits they will reap from entering into such a relationship with an intermediary. Once this relationship has started, the sunk cost involved in the investments made will prevent either party from abandoning it. If one party has invested more, and more in a way that is non-recoverable and cannot be used in relations with new business partners, this party will be in an unfavourable position. Rational consumers *may* be aware of this and decline to enter into such a relation. If no alternative firms are available that will not build and use profiles to their own advantage, even rational customers will have to enter into such a relation, however. What is

more, statements of firms on electronic markets to the effect that they will not use people's information have been violated before.<sup>2</sup>

### **3. Suppliers (Intermediaries) vs. Consumers**

May consumers organize a countervailing power by forming virtual communities? Olson's (1965) logic of collective action will make it difficult for the many consumers to organize in a way that will make firms adopt and stick to a policy where they would not use such information about their clients in ways that hurt them. The pace of technological development and the commercial uses made of these technologies is rapid. This creates a situation that is in many ways to be characterized as uncertain – in the sense that Frank Knight (1921) proposes – to customers. Most people will not know what information is available that they might find of interest, and most people will not know what e-tailers are able to do to observe and interpret their online behaviour. In such circumstances, they will not be able to make the kind of rational calculation that neoclassical economics expects them to make. Instead, they will rely on the reputation of established firms – a reason why they may ask higher prices for their services even when customers are aware of other firms that offer the same product or services at sometimes much lower prices (Brynjolfsson & Smith 2000). When consumers are not rational *homo economicus*, but rather creatures of habit (e.g. Dolfsma 2002), there is an additional reason why they will simply enter into a relation with an established, reputed firm and later find themselves in a subcontracting relation.

Consumers generally are aware of their investment, and if they are not yet aware they will rapidly become aware of it; their knowledge does not stop them, however, from participating in this sort of relationship. The potential benefits - in terms of decreased search costs and increased fulfilment of their preferences - may convince them that it is beneficial to initiate a relationship with a particular intermediary. Consumers may also appreciate it when they are pointed to different but related products. In addition, intermediaries in the early and immature state of many electronic markets have started to compensate (potential) customers for the personal and unique information they provide by answering questionnaires. This compensation takes the form of rebates or samples. In the case of information products that

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<sup>2</sup> Despite the public outcry that this has sometimes evoked, such action may not be illegal. Firms on electronic markets can have their customers sign 'click-wrap' contracts that many never read that contain clauses that allow them to alter their policy in relation to privacy without consent of their extant customers.

exist in a physical state - such as newspapers, magazines, and books - this process seems to have developed in a way that consumers as well as firms find attractive.

The balance of advantages and disadvantages for consumers and firms might be different in electronic markets than in bricks-and-mortar markets. Who will benefit more from future developments in Internet markets is difficult to say, but the preceding discussion does offer a suggestion. Even if intermediary firms are to gain more than consumers, that gain may not be at the expense of Internet shoppers. Total economic activity may expand due to developments in Internet market - additional consumer surplus may outweigh the deadweight loss that consumers suffer; in all the process may end up in a situation that is what economists call a Pareto improvement even when further welfare improvements would be possible.<sup>3</sup> In other words, intermediaries may take the bigger share of that market but the economic position of consumers need not deteriorate in absolute terms. Developments in electronic markets can increase the economic pie, as much as they can change the distribution of the pie itself.

Two countervailing forces are at play in electronic Internet markets that set limits to the degree to which intermediaries can wield their market power. One is the fact that communities that form in the virtual world - for instance, in discussion groups - are not bound by geography. Whether or not incumbents will succeed in maintaining and exploiting their possibly dominant positions in electronic markets depends on how responses to their behaviour is perceived and acted upon in the different Internet communities that are relevant to these firms. Internet communities have extended possibilities to express, in terms originally described by economist Hirschmann (1970), their voice, while their members may not always be able to exercise the exit option because they are locked into a relation with an intermediary that they themselves have invested in heavily. The market for music products is an example. As argued elsewhere at some length, the discussion lists, for instance, about what used to be local music bands may now have a global membership (Dolfsma, 2000). Bands from New Zealand, for instance, are the focal point of discussion lists in which the members are for a substantial part based in the countries other than New Zealand. As a consequence, sales of recordings by these bands outside of New Zealand are quite remarkable, and they have also found enlarged possibilities for live performances.

The background and sources of information at the disposal of each member of the community will likely differ more than in traditional, physical markets. For that reason, the

likelihood that information will disperse in the network or community about alternative intermediaries to turn to, or about (alleged) abuses by the intermediary with whom community members now deal is substantial. In network theory, this is known as the ‘weak ties’ argument, and for many different situations it has positive effects (Granovetter 1996). Especially Rheingold (1994) believes that Internet communities will be an important countervailing power in the social and the economic realm. Jones (1995, 1998) provides empirical studies of Internet communities that present a more mixed perspective. Extant relations tend to persist, or tend to be reflected in relations on the Internet. Power is not absent from the Internet, contrary to what many had expected. Whatever effect Internet communities have on the behaviour of firms depends on firms wanting to preserve their reputation. Relevant Internet communities consist of large numbers of consumers with diverse interests. As Mancur Olson has argued persuasively already in 1965, a small group of parties that has a well-defined interest often finds it easy to mobilize against such a large(r) group. In addition, as Internet communities allow for people to communicate anonymously, parties (firms) that have a specific interest may be able to introduce information in the community through individuals that pose themselves as independent. Sony Music has notoriously done so by persuading a reviewer of newly released music to write favourably on its music. Future developments will thus, of course, have to decide which of these tendencies will be stronger.

A second tendency that will be observed as electronic markets develop and mature is an increased volatility in demand on these markets. New products altogether, or new variants of an existing products - and each may subsequently be customized - are likely to find their way to the market. These will partly be delivered by entrants on electronic markets in an attempt to establish a foothold in a particular market, but may also be launched by incumbents as a means of constructing barriers to entry and defend their own position on a market. Such practices by incumbents are already known for certain physical markets such as cereals, soaps, washing powders, and detergents (cf. Scherer and Ross, 1990) and will be copied and perfected on Internet markets. The effect may be that the position of a firm will become less secure than it is in physical markets, but that need not necessarily result in its position inevitably deteriorating. Entertainment industries provide examples of industries where a fundamental feature of business is an equivalently high degree of demand volatility. Still these industries tend to be dominated by a few large companies (see Vogel, 1998), because large, diversified firms can

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<sup>3</sup> See Dolfma (2005) for a discussion of the field of welfare economics that is referred to here.

take advantage of such circumstances by exploiting economies of scope and because of their deep pockets while small, single-product firms are much more vulnerable (Dolfsma 2005b).

How this works out in terms of the absolute and relative numbers of customers who remain loyal to an intermediary firm and the products it brings to a market is not clear.

#### **4. Some Concluding Remarks**

In this article I applied Transaction Costs Theory to understand emerging relations between consumers and intermediaries (suppliers, e-tailers) on electronic markets. These relations will change because products exchanged on these markets are easy to reproduce and customize, while at the same time they do not deteriorate in quality when used or copied. Customisation, however, is predicated on consumers providing intermediaries with information about their preferences. The process, in which such information is given, requires more investments on the part of consumers than on the part of intermediaries – investments which are idiosyncratic. Consumers become dependent on (locked into) intermediaries due to these idiosyncratic investments, giving the latter the possibility to increase their profits. There are countervailing tendencies, however, which have to do with how communities on the Internet are organized. I have argued these countering tendencies to be too weak to counter the tendency of consumers becoming locked-in subcontractors and dependent on the firm they buy from. Consumers will, of course, benefit from increased choice of products, and may benefit from the increased possibility for price discrimination as well. Whether the development of electronic markets will improve the position of consumers in absolute terms depends on the increase in the size of the economic pie itself. It is likely, for instance because of increases in economic productivity, that the pie will grow (much) bigger. In relative terms, however, consumers will be worse off due to the tendencies highlighted related to consumers becoming subcontractors on electronic markets.

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