What do we worry about when we worry about price discrimination? Principled considerations in the use of using personal information in pricing.

Akiva Miller

Part I

a. Introduction

I introduce Price Discrimination facilitated by personal information, and the impetus for a principled discussion of this issue.

b. Related phenomena

I point to other market trends that relate to the issue under discussion: consumer data mining, targeted advertising, dynamic pricing, CRM, and argue there is reason to suspect that consumer information is being increasingly used to facilitate price discrimination.

c. Is price discrimination becoming more widespread?

I argue that there are reasons to believe that price discrimination is becoming more widespread thanks to big data, and that more information must be made publically available.

d. Who is worried about it?

I discuss the growing concern over price discrimination on the part of Academics, the media, regulators and legislators. The closer scrutiny requires clearer understanding of the economic incentives and the principles involved.

e. The Intellectual Framework

I lay out the intellectual framework for this thesis: the economic analysis of law, the contextual integrity framework, and the discussion of "information remedies". Because of the expansive nature of this thesis, a full theoretical articulation is beyond the scope of my undertaking. Instead, the thesis is meant to outline the economics and a framework for the discussion of considerations of the principles implicated with the use of information for price discrimination.

Part II – Economic Analysis

a. Basic Premises and conditions for price discrimination

As we begin the economic analysis, we must remember not to leap to policy conclusions from theoretical findings. Economic models offer only tentative suggestions of possible outcomes, and should always be taken with a grain of salt.[1]

With that caveat in mind, we consider the market conditions we expect to find in real world: Markets normally exhibit a dispersion of prices for similar products. This follows from the fact that even under the best conditions, consumers have imperfect information about the best available prices, and incur some search costs in order to discover prices. The natural dispersion of prices means that firms have an incentive to adopt non-linear or discriminatory pricing strategy in order to gain from the higher-paying customers.[2] However, in order to do so, a few conditions must exist:

Firstly, firms must have at least a small measure of market power, even only for a short term, and can't be pure "price-takers". Secondly, a firm must have some control over the sale of the price, and prevent unreasonable levels of arbitrage by consumers. Thirdly, consumers must have the ability to segment the consumers according to their different price elasticities of demand for the goods or services.[3]

We will especially consider markets with imperfect (or "oligopoly") competition among a limited number of firms, the usual state of affairs in the real world, which exhibit marked differences from monopoly action.[4]

b. Definition and Types of Price Discrimination

While there is no complete consensus, Price Discrimination can be generally defined as "differences in the ratio of price to marginal cost across buyers or units of a

---

[1] See, Armstrong, supra n___ at, p. 15 note 31: Armstrong comments that "[a]s ever, one should be wary of reaching policy conclusions on the basis of these unit demand models since prices have little role to play in welfare terms."
[2] Steven Salop and Joseph E. Stiglitz, "The Theory of Sales: A simple Model of Equilibrium Price Dispersion with Identical Agents" Am. Econ. Rev. Vol 72. No. 5 (Dec., 1982) pp. 1121-1130.
[3] Kathleen Carroll and Dennis Coates, "Teaching Price Discrimination: Some Clarification" Southern Economic Journal, Vol. 66, No. 2 (Oct. 1999), pp. 466-480, 470-6; Stole, supra n__, 1-3
[4] See generally, Armstrong, supra n___; Stole, supra n___.

good."[5] This definition takes into account various objective cost considerations that could disqualify certain superficial differences in price from being considered as true price discrimination.

Traditionally, the economic literature distinguishes between three kinds of price-discrimination, a classification that goes back to the work of economist A.C. Pigou in 1920:[6]

First-degree price discrimination or "personalized pricing" refers to the price charged by the seller for each unit at the buyer's maxim willingness to pay for that unit. It may also be defined as the seller making a take-it-or-leave-it offer to each consumer that extract the maximum amount possible from the market. This kind of price discrimination is essentially turns each consumer into a 'market of one' for the product. In contrast to the age of mass-production of identical goods, in the modern economy, some industries are able to customize their products to the individual tastes and requirements of consumers, and this phenomenon has been dubbed "mass-customization" or "personalization".[7] Sometimes, it is used to describe tailoring a price individually to each consumer, with the aim of pricing at a consumer's highest willingness to pay.[8]

Second-Degree price discrimination or "non-linear / menu pricing" refers to non-linear pricing, or prices that differ among various quantities of the product sold, but not among various buyers. The most obvious form of kind of price discrimination may be achieve by offering quantity discounts, which can also take the form of bundling or tying arrangements. Another method of second-degree price discrimination is segmentation of a firm's product line along different lines of product quality, or "versioning" or products, and setting different prices for each segment. A third strategy is a two-part tariff, whereby consumers pay through a combination of a lump-sum fee and a per-use charge. In all second-degree price discrimination strategies, consumers "self-select" their pricing level that best suites them.[9]

---

[5] Carrol and Coates, supra n.___, 467-8.

[6] See Generally, Hal R. Varian, Joseph Farrell, and Carl Shapiro, THE ECONOMICS OF INFORMATION TECHNOLOGY – AN INTRODUCTION (2004), 12-25; Hal Varian "Price Discrimination" in Handbook of Industrial Organization, Vol. 1 R. Schmalensee and R.D. Willig (Eds.) (1989), 597, 600-624. ; Carroll and Coates, supra n__. 468-71.

[7] Varian, Farrell, and Shapiro, supra note __ ,13.

[8] See Andrew M. Odlyzko. "*Privacy, economics, and price discrimination on the Internet*", ICEC2003: FIFTH INTERNATIONAL CONFERENCE ON ELECTRONIC COMMERCE, N. SADEH, ED., ACM, 2003, pp. 355-366, at 357. Also available at: http://www.dtc.umn.edu/~odlyzko/doc/complete.html.

[9] Varian 1989, 614, 640-1; Carroll and Coates, Supra n___.

Third-degree price discrimination or "group pricing" refers to selling identical products at different prices to different group of consumers, but each consumer pays a constant amount for each unit of the goods sold. In this kind of price discrimination, firms recognize that members of certain groups are more sensitive to price than others. Examples are student and senior discounts, and airfare price schedules that target different prices to different types of travelers based on various characteristics.[10]

c. Information aspects of price discrimination

Just as price discrimination strategies differ from each other, firms require different kinds of information in order to be able to engage in each kind of strategy. I would like to point out three dimensions of information requirements:[11]

i. *Identification of the consumer* – whether the consumer must be identified or may remain anonymous.[12]

ii. *The data needed about the consumer to achieve discrimination* – such as willingness to pay, price sensitivity, or product preference.

iii. *Other information sought by the firm* – firms may require additional information that does not pertain to individual consumers in order to price discriminate, such as knowledge of market structure and distribution of prices. Increasingly, such information can be obtained through data-mining analysis of consumer information.

First-degree price discrimination requires that the firm be able to identify the consumer. As we have seen, identification can be done, for example, by requiring the consumer to log-in to a shopping site, or through the use of a cookie, IP address, or payment card data. First-degree price discrimination requires a lot of information about the consumer's tastes and willingness to pay in order to be able to tailor a price to the consumer. This information can be obtained, for example, by analyzing the consumers purchase history, bought from information brokers, or acquired using third-party

[10] Varian 1989, 614, 640-1; Carroll and Coates, Supra n___.
[11] For the following discussion see: Carroll and Coates, Supra n___, 467-71.
[12] As Alessandro Aquisti points out, for nearly all purposes, identification of a consumer may be substituted for a pseudonymous identity that is more or less stable with relation to the information sought by the firm but does not identify the consumer by name. For the purpose of our discussion, I will consider a stable pseudonymous identity as essentially identifying a customer. See Alessandro Acquisti "Identity Management, Privacy, and Price Discrimination", Security & Privacy, IEEE 6.2 (2008) 46-50

tracking cookies. In competitive situations, a firm also requires knowledge about the competitive structure of the market, a topic we return to later.

Second-degree price discrimination, in contrast, allows consumers to remain anonymous, since consumers self-select their preferred level of spending. However, firms require information about the dispersion of price-sensitivities among consumers in order to construct an efficient menu of options (we return to this point later). Here too, firms also need to know the competitive structure of the market.

Third-degree price discrimination requires at the very least that the firm be able to identify whether a consumer has the relevant group trait that is used for discrimination, but does not necessarily require consumer identification. The firm requires additional knowledge about the correlation between the group and its price-sensitivity, and information about the competitive structure of the market.

We now turn to examine these connections between pricing strategy and information more closely.

d. The specter of first-degree price discrimination

The possibility that firms will try to enter the minds of their customers and glean knowledge of their highest willingness-to-pay has spellbound commentators on price discrimination. Several important discussions of the legal aspects of price discrimination have premised on the assumption that price-discriminating firms are primarily interested in discovering their consumers' highest willingness-to-pay (or "pain points").[13] I would like to argue, however, that such a narrow focus is misguided, and greater attention must be given to other pricing strategies and to the effects of competitive conditions.

Under monopoly conditions, a firm's ability to engage in perfect first-degree price discrimination (i.e. pricing to each customer precisely at her highest willingness to pay) is expected to maximize overall social welfare, but extract the entire transaction surplus, leaving consumers with no surplus at all.[14] If possible, such a pricing strategy would be the "Holy Grail" of marketing[15] but would be detrimental to consumer welfare.

---

[13] See, e.g.: Kochelek, ____ p. 520-3; Odlyzko (2003) ___ p. 4-8; Edwards ___ 561-74; Strahilevitz ___ pp. 56-7.

[14] Varian 1989, Supra n. ___ at 600-4. Mark Armstrong "Recent Developments in the Economics of Price Discrimination" Blundell, Richard. and Newey, Whitney .K. and Persson, Torsten., (eds.) Advances in Economics and Econometrics: Theory and Applications: Ninth World Congress: volume II. (pp. 97-141) (2006). Available online at http://eprints.ucl.ac.uk/14558/ , p. 5; Stole, supra n___, 6.

[15] Odlyzko, supra note 5, 356.

However, there are some important barriers against achieving perfect first-degree price discrimination: Firstly, the ability to have perfect power over price requires a perfect monopoly, such as is rarely seen in the wild. Secondly, even a perfect monopoly would sometimes have to price below perfect equilibrium prices and offer customers at least a modest chance of receiving surplus, in order to induce them to enter the market in the first place. Thirdly, firms typically lack complete information about the buyer's willingness to pay, and therefore cannot price exactly at the highest price level possible.[16] New advances in information technology, however, have led some to speculate whether perfect knowledge of a consumer's willingness-to-pay may not soon be within reach.[17] I take no position on this future possibility.

Secondly, even if perfect knowledge of a consumer's willingness-to-pay were possible, competition fundamentally changes the calculus. Under competition, consumers purchase at marginal cost, and thus, consumers are able to obtain considerable surplus form each purchase, provided that demand curves are highly elastic and goods are close substitutes. Therefore, the impact of first-degree price discrimination on consumer surplus depends on consumer demand. A firm's knowledge of each consumer's willingness-to-pay has little effect on the price, even if only one firm has that information and the other does not.[18]

If so, what do firms that can price discriminate want to know? Economic models of competition among price-discriminating firms assume that what competing firms wish to discover is their best responses strategy given the market structure, rather than the optimal price strategy for a single monopoly firm. Generally, under these models, firms attempt to discover which consumers belong to their "strong market" (those who are price insensitive and willing to pay more) and which belong to their "weak market" (those who are price insensitive and willing to pay less). Armed with this information, which does not require complete knowledge of customers' "pain points", firms are able to create a pricing strategy that offers an effective best response to the actions of their competitor (more on best-response strategies is discussed below).[19]

The welfare outcomes of first-degree price discrimination under imperfect competition are ambiguous, and depend on the specific conditions of the market. David

---

[16] Varian 1989, 603.; Salop and Stiegliz, supra n___ 1128-9.
[17] See, e.g., Odlyzko, supra n____ , 356. Ulph and Vulkan, supra n. ___, 2-3.
[18] Stole, supra n__ 7; Armstrong, supra n__ , 12-14.
[19] See Stole, supra n__ 4-6. Armstrong, supra n__, 2-4.

Ulph and Nir Vulkan[20] argue that under competition, two opposing forces are in play: the price-discriminator's enhanced ability to extract greater surplus and the intensified competitive pressure that comes from the discriminating competitors' ability to match prices and customize products to all consumer levels. The tension between these two forces (and a crucial third factor – transport costs) determines the allocation of surplus between the buyers and sellers.

If indeed successful first-degree price discrimination is highly unlikely, what is all that consumer information data mining used for? With imperfect information about each individual, first-degree price discrimination becomes more akin to third degree-price discrimination. In other words, the information is used to divide up the consumer population into groups, and to discover correlations between those groups and higher or lower price elasticity. As we have seen, Acxiom Inc. offers its clients information a segmentation of consumers into 70 narrow demographic groupings.[21] With that level of precision, the line between first and third degree price discrimination becomes blurred.

e. Price based on purchase history

One of the most valuable sources of consumer information is the firm's own records of past consumer activity. Through their purchase, consumers reveal much information about their tastes and price sensitivities and allow firms to identify which belong to the firms' "strong" or "weak" markets. Moreover, consumers my face exogenous switching costs, whereby past customers are more price-elastic (i.e. willing to pay more) than new customers. Thus, identifying past consumer allows firms to differentiate prices for homogeneous goods that have become differentiated by virtue of the consumer's initial choice to buy or not to buy at a given price.[22] Acquisti and Varian regard this kind of price discrimination as a variant of second-degree price discrimination, with past purchase behavior serving as a signal for willingness-to-pay[23] whereas Stole considers it a kind of third-degree price discrimination.[24] I don't take a position on this question.

---

[20] David Ulph and Nir Vulkan "Electronic commerce, price discrimination, and mass customization". Technical Report, Said Business School, Oxford. Available at: http://vulkan. worc. ox. ac. uk/wp-content/images/combined-paper. pdf, 2007.

[21] Acxiom, supra n___.

[22] For discussion of several such models, see: Stole, supra n__, 29-41; Armstrong, supra n. ___ 5-11.

[23] Acquisti and Varian, supra n___. 370.

[24] Stole, supra n.___, 30.

As we have noted, todays there are powerful computer tools for analyzing consumer purchase information, and companies are making use of these tools for marketing and CRM purposes. These tools can also analyze purchase information to facilitate price discrimination. Research by Besanko, Dubé, and Gupta demonstrates that it is theoretically possible to segment customers based on their purchase history by aggregating of the kind of information typically held by retail stores. This information might then be used to target prices to consumers through a system of selective coupons given at the point of sale. Furthermore, such a system might be profitable for the retailer and capture a greater share of consumer surplus even with imperfect classification.[25]

Price-discrimination based on purchase history is most likely to succeed in markets with repeat and frequent purchases, in which anonymous shopping can be made difficult or expensive by the seller. Online shopping, travel purchases, and supermarkets, are therefore most susceptible to price discrimination based on purchase history. Acquisti and Varian predict that as price discrimination practices become more common, they will become perceived less as privacy-intrusive and more agreeable to consumers who will develop greater loyalty to their retailers.[26]

When a firm can identify it's past shoppers and cannot commit to future prices,[27] its best strategy is to offer a low initial price to all new consumers, and then offer a somewhat higher price only to returning customers. By paying the initial price, those customers shown that their willingness-to-pay point is at least the price they paid in the first time. It has been demonstrated that doing so is the best strategy as long as firms are unable to commit in advance to future prices for its repeat customers.[28]

In competition, firms also wish to know their consumers' reactions their rivals' prices. Economist distinguish between two possible situations: "best-response symmetry"[29] whereby one firm's strong market is also its rival's strong market, and "best-

---

[25] David Besanko, Jean-Pierre Dubé, and Sachin Gupta, "Competative Price Discrimination Strategies in a Vertical Channel Using Aggregate Retail Data" Management Science Vol. 49, No. 9, September 2003, pp. 1121-1138, at 1121-23 and at 1136-7.

[26] Acquisti and Varian, supra n. ___ 380.

[27] In general, if a monopoly seller can commit to future prices, it is better off doing so, and that situation is the same as monopoly conditions when no price discrimination is permitted. However, since the ability to credibly commit to future prices is relatively rare in competitive retail markets, we will not discuss those scenarios.

[28] See Armstrong, id.

[29] An example of symmetrical competition is adjacent stores that sell an identical range of products. People who prefer to spend a lot at one store are likely to spend a lot at the other store too, and could be persuaded to switch if either store offers them a better deal.

response asymmetry"[30] whereby one firm's strong market is its rival's weak market.[31] In best-response symmetry. In general, it is advantageous to offer lower prices to the segment of consumers most likely to switch in response to a change in price. The question is which consumer group is it – the firms own past customers or its rival's. When search history reveals asymmetric demand, a firm "pays customers to switch" – it offers lower prices to new customers and rival's consumers and higher prices to its own repeat customers. When demand is symmetric, then the firm "pays customers to stay" – offers lower prices to keep past customers from switching.

Note that a firm does not need to know which consumers bought from its rivals. It treats new consumers and its rival's consumers the same. The firm only needs to recognize its own past customers and their reaction to different past prices. The ability to do so also depends on the firm's ability to prevent its existing consumers from adopting anonymizing tools that allow them to imitate new consumers and enjoy the benefits offered only to them.

The welfare effects of this kind of price competition can be ambiguous. In general, price-discrimination is expected to enhance overall social welfare, since, absent the ability to condition prices, the strategy that a firm is likely to adopt is to simply price at the higher price to all its consumers, thus excluding lower-end shoppers from the market.[32] Taking into consideration the effects of competition complicates matters. Under best-response asymmetry, repeat customers of both firms will tend to get higher prices, while firms will target deals those who are most indifferent between competing firms. Under symmetrical competition, the effects reverse, and with firms offering deals to their own repeat consumers (who are their strong market) to persuade them to say. Overall, prices will generally fall over time as competition intensifies for the price-sensitive (or brand-insensitive) market segments, and in some cases this can lead to lower overall social welfare compared with no-discrimination.

---

[30] An example of asymmetrical competition is identical stores that are at some distance from each other. People who live close to one store prefer that nearest store but not the far one, and vice versa. People living close to either store are unlikely to switch to the other, but those who live closer to the middle point are more likely to switch. The analysis is the same whenever consumers have a persistent preference for one firm over the other.

[31] Armstrong, supra n__, 14-19. See also: Kenneth S. Corts,: "Third-Degree Price Discrimination in Oligopoly: All-Out Competition and Strategic Commitment," Rand Journal of Economics, 29(2) (1998), 306—323; Jacques-Francois Thisse and Xavier Vives: "On the Strategic Choice of Spatial Price Policy," American Economic Review, 78(1) (Mar. 1988), 122—137. (cited in Armstrong, Id.); Stole, supra n__, 11-17.

[32] Acquisti and Varian, supra n___.

It should be emphasized that firms are able to affect consumers' price-elasticity in various ways. Acquisti and Varian demonstrate that firms can "lock-in" their high-end customers by offering them personalized services that represent added value to them and therefore impose a switching cost should they wish to go to a competitor. This is especially true in online shopping, were even modest personalized services[33] such as Amazon's one-click shopping create significant switching cost and demand inelasticity among Amazon customers compared with customers of competitor website barnsandnoble.com.[34]

f. Prisoner's dilemma

The possibility that overall social welfare may be reduced through the intensification of competition and lowering of prices brought about by price discrimination indicates that there may be a market failure involved. Indeed, a number of economists have demonstrated that firms can find themselves in a 'prisoners' dilemma' whereby each firm acting alone would prefer not to employ price-discrimination strategies, but under competitions, each is better off if they adopt a strategy of price discrimination in response to its competitor's expected actions. This is expected to happen primarily in situations of best-response asymmetry. The intuition behind this prisoner's dilemma is simple: when competition is fierce, firms try to poach rival's customers by offering them selective discounts bellow costs, but may fail to recoup their losses due to excessive and inefficient switching.[35] Other factors affect outcomes of competition, but discussing these factors is beyond the scope of this paper.

A prisoner's dilemma also occurs when rival firms compete over customization products. While the first to adopt this kind of strategy reaps a short term advantage, the adoption of customizing technologies by the rival lead to lower profits for both firms in the long run, and competing firms would both be better off when neither would adopt

[33] Enhanced services, according to Acquisti and Varian, mean such conveniences given to the repeat high-end customer, such as one-click shopping, personalized recommendations of products, etc. These services represent added value to the consumer by making the shopping experience quicker and easier, and cutting down on search costs.
[34] Acquisti and Varian refer on this point to: Austan Goolsbie and Judith Chevalier, "Price Competition Online: Amazon vs. Barns and Noble", Quant. Marketing Econom. 1(2) 203-222.
[35] Armstrong Supra n.__ 14-19; Besanko, Dubé, and Gupta, supra n. __ at 1133-4. Stole, supra n__, 7-8 and 17-23. Dewan, Jing, and Seidmann, supra n__ 1-2, Ulph and Vulcan, *supra* note __, 7, 34-35.

such a strategy. Thus competing over market share in this way represents an over-investment in technology that harms both firms but benefits the consumer very little.[36]

The finding that price discrimination might not be socially efficient in many cases is important, as it may undermine one of the basic justifications for permitting price discrimination in the first place.

g. "Myopia" and "sophistication"

The success of price discrimination depends on whether consumes' can anticipate the way their purchase history will be used or not. Acquisti and Varian argue that it is not always profitable even for a monopoly firm to price discriminate.[37] The profitability of price discrimination, from the viewpoint of the seller, depends also on whether the consumers are "myopic" or "sophisticated".[38] When too many consumers are sophisticated, it is not in the interest of the firm to adopt a strategy of conditioning price based on purchase history. However, conditioning price on purchase history becomes profitable if a sizeable enough proportion of consumers are myopic.

Armstrong reaches an opposite conclusion: if most customers are sophisticated, they react less strongly to initial discounts and consequently firms must raise the second-period costs, and overall price discrimination becomes socially inefficient. Conversely, naïve consumers react to initial price discounts, and consequently firms maintain the second-period prices lower. In either case, argues Armstrong, the ability of competing firms to price-discriminate reduces overall the firms' profits overall, but consumers are slightly better off.[39]

Firms wish to know their customers' reaction to their rivals' prices, and therefore, they may wish to buy that information with each other. Curtis Taylor argues that the outcome of this kind of information sharing among firms depends too on customer

---

[36] Rajiv Dewan, Bing Jing, and Abraham Seidmann. "Adoption of Internet-based product customization and pricing strategies." System Sciences, 2000. Proceedings of the 33rd Annual Hawaii International Conference on. IEEE, 2000.

[37] Alessandro Acquisti and Hal R. Varian, "Conditioning Prices on Purchase History", Marketing Science Vol 24, Number 3, Summer 2005, pp. 367-381.

[38] In the context of Acquisti and Varian's article, 'myopic' refers consumers are those who base their purchase decision on the price they see today, not recognizing that the price they will face tomorrow may depend on today's purchase, or who find the inconvenience of using anonymizing technologies to be too great. 'Sophisticated' consumers are those high-value consumers who recognize that purchasing at a high price today will lead to them facing a high price in the future as well. Sophisticated consumers, therefore, are likely to try to employ anonymizing technologies.

[39] Armstrong, supra n___, 32-6.

myopia. If most consumers don't anticipate the uses of their personal information in pricing, exchange of consumer valuation among firms intensifies the market effects already present, leading alternatively to stronger competition or greater surplus extraction. On the other hand, if consumers can anticipate the sale and use of their information in pricing firms, the reverse happens: High-value consumers avoid buying in the first period, leading to useless consumer lists and lower posted prices – a deadweight loss and market inefficiency.[40] Armstrong comments that Taylor's model suggests adopting a ban on firms sharing consumer information. Such a ban would tend to make naïve consumers better off and reduce industry profit. If consumers are sophisticated, a ban on information transfer will increase firms' profits.[41]

Whether most consumers are "myopic" or "sophisticated" and can anticipate the effect of their purchase decisions on future prices is a matter for further study. It is important, however, to keep in mind that the amount of information available to consumers about the sale and use of their information can have a profound influence of the effectiveness of pricing strategies.

h. Allocation inefficiencies in third-degree price discrimination

As we noted before, third-degree price discrimination requires at least some identification of the customer with a certain group trait, as well as knowledge of a correlation between such a group trait and the consumers price sensitivity.

A consumer's knowledge of the dispersion of prices is hampered by search costs, as well as the difficulty of reaching rational expectations about what prices are available in the market under uncertainty. As Salop and Stiglitz put it: "There is no persuasive reason to believe that individuals' perceptions of the probability distribution of prices corresponds to the actual probability distribution; indeed there is a considerable body of literature suggesting that there may be systematic biases in individuals' perceptions of probability distributions, particularly of events (like sales) which occur infrequently.[42]

Consumers' imperfect knowledge of market prices makes third-degree price discrimination susceptible to three potential source of inefficiency that can affect overall social welfare (relative to situations without price discrimination): Firstly, total aggregate

---

[40] Curtis R. Taylor, "Consumer Privacy and the Market for Consumer Information" the RAND J. of Econ. Vol 35. No. 4 (Winter 2004) 631-650, 631-3.
[41] Armstrong, supra n__ , 11.
[42] Salop and Stiglitz, supra n___, 1128.

output might be too low if prices exceed marginal cost. Secondly, in any given level of consumption, price discrimination can lead to misallocation of consumers between pricing groups, whereby strong-market consumers are offered lower price levels, or when weak-market consumers face high prices and exit the market (relative to uniform pricing, in which consumers aren't grouped at all). Lastly, there may be inter-firm misallocations, meaning that firms' prices induce consumers to switch inefficiently - either too much or too little.[43]

i. Second-degree price discrimination: bundling and loyalty programs

We now turn to consider more closely the connections between information and second-degree price discrimination. As we noted earlier, Second-degree price discrimination relies on consumers self-selecting among various quantity or quality menus. It does not require a seller to identify customers or ascertain their likely preferences in advance.[44]

Nevertheless, second-degree price discrimination requires that the firm acquire knowledge of the distribution of customer tastes for quantity or quality of consumption in order for the seller to design higher-end and lower-end products that appeal to each segment's tastes and price-preferences.

Hal Varian has argued that an optimal differential pricing scheme ends up to consumers bunched at common quantities (or levels of usage of a service) rather than fully distributed along a spectrum, so that even with second-degree price discrimination there can be consumer types who are not served. Therefore, "[t]he fundamental constraint in the quality-pricing problem is the same as that in the quantity-pricing, namely the self-selection constraint: choosing a pricing scheme that induces consumers of each quality level to prefer their own quality to any other quality".[45] The task of the firm is to set a menu of prices and levels of quality (or quantity) that allows each willing consumer to choose the best combination of price and quality for herself. Through self-selection, consumers obtain a greater surplus compared with linear pricing. Ideally, a monopolist engaging in second-degree price discrimination will recoup its losses from offering better prices to consumers by the increased revenue from the increase in sales volume and increased profits from the higher-end consumers.[46]

---

[43] Stole, supra n___, 8-9.
[44] Acquisti, supra n__, 49. Stole, supra n__ , 44.
[45] Varian 1989, 614, 640-1.
[46] Stole, supra n___, 45-49.

Like with third-degree price discrimination, competing firms can discover that the distribution among their "high demand" and "low demand" consumers is symmetrical or asymmetrical to that of their rival (i.e. one firms' high-demand customers are its rival's high-demand or low-demand customers, respectively). Symmetry among rivals' markets has also been called "vertical heterogeneity" and asymmetry has also been called "horizontal heterogeneity".[47]

The consumer welfare effects tend generally to be positive. With horizontal heterogeneity, competition tends to increase consumer surplus without hurting overall social welfare, since consumers have more choices and are able to move closer to their preferred brands and quantities. With vertical heterogeneity, under realistic competitive conditions where firms may have different comparative advantages over one another, second-degree price discrimination tends to intensify competition among firms. However, as always, general empirical predictions are hard to reach.[48]

Loyalty programs and bundling (offering a discount for two products together) are special kinds of second-degree price discrimination of particular interest to our discussion, because their use seems to be expanding, and because the amounts of the great amounts of consumer information that can be collected through loyalty programs. As we noted, data-mining can be used to discover hidden connections between product preferences that can be used to design effective discount offers. It can also be used to discover the distribution of price preferences among consumers. By offering shoppers credit points or discounts on future purchases (such as in frequent flyer programs) loyalty programs act essentially as mixed-bundling programs. Under loyalty programs the ex-ante promised discount causes firm profits to decrease while consumers benefit from lower prices. Firms expect to recoup their losses from the increased revenues their might receive through the greater amounts purchased due to consumer lock-in, with the best prices and discounts are offered to the firm's own previous customers. However, these strategies are susceptible to a prisoner's dilemma. Each firm would prefer to demand full-price for their products, but must offer bundled discounts or loyalty point to respond to its rival's discounts. This situation improves consumer welfare but overall welfare is reduced, since there is excessive consumer loyalty.[49]

---

[47] Stole, supra n__, 44-45. Stole notes that consumers my exhibit vertical heterogeneity in one dimension (like quality) but vertical heterogeneity in another dimension (like quantity). However such complicated scenarios are difficult to model.

[48] Stole, supra n___, 49-54, 66-67.

[49] Armstrong, supra n__ 24-30, 38-39.

j. The price of anonymity

As we noted, the ability to engage in first- or third-degree price-discriminate depends on the ability of firms to identify consumers, and thwart the use of anonymizing technologies[50] by consumers. Price discrimination becomes profitable if the relative cost of adopting or not-adopting anonymizing technologies is too great, which in effect renders shoppers in the same position as though they were "myopic" and unable to avoid higher prices after they reveal their price-sensitivity the first time they buy from a firm.[51] This result implies that many consumers will wish to invest money and time in acquiring anonymity-preserving technologies.

Clearly, maintaining anonymity on the internet and elsewhere raises concerns beyond the issue of price-discrimination. Alessandro Acquisti points out that adopting identity management technologies can help merchants and consumers find a balance between consumer privacy protection and merchant's impetus for price discrimination.[52] However, absent any regulation or largess by firms, it appears that the cost of anonymizing technology for is an externality borne by consumers who desire to maintain their privacy and avoid identification.

k. Reducing competition and deterring entry

Another concern is that price discrimination can be used strategically to restrain competition, and pose a barrier to rival entry into the market. Mark Armstrong points out that an incumbent firm competing in a number of different markets (whether geographically, or in a certain segment of the clientele) might be able to target selective price cuts only in the market in which it faces fierce competition or possible entry, while keeping its prices higher to the segment where it enjoys greater market power. This possibility may be used strategically to deter the entry of a rival who cannot compete with the firm on all market segments, and thus stifle competition. Armstrong warns, however, against adopting anti-discrimination policies to encourage entry, arguing that:

---

[50] In this context, anonymizing technologies is used by Acquisti and Varian to refer to any measures taken by a consumer to hide the fact that she has bought previously, such as deleting browser cookies, using a different credit card, shop anonymously in sites which enable this, avoid loyalty schemes, etc.

[51] Acquisti and Varian, supra n___.

[52] Acquisti, supra n. ___, 49.

"as with many forms of entry assistance the danger of inefficient entry is rarely far away".[53]

Einer Elhauge likewise points to the anticompetitive effects of tying, bundled discounts, and loyalty programs. He argues that, through strategically selective discounting, bundled discounts and loyalty programs can have the perverse effect of discouraging discounting overall. Consequently, Elhauge suggests that courts should continue to treat tying and bundled discounts with the same antitrust scrutiny as the Supreme Court has employed, and not adopt the per-se legality that Chicago School scholars have advocated.[54]

l. Competition over non-welfare-enhancing innovation

Beyond the worries about the competitive effects of price discrimination, there is concern that the ability to price-discriminate leads firms to compete over the wrong things: Instead of competing over improving the quality, variety, or overall prices, firms compete over adoption of marketing tools that do not enhance consumer welfare in any meaningful way, and may even be socially detrimental. Examples of such as harmful competition is competing for advantages using political lobbying, accumulating excess capacity to deter market entrants, and premature entry into a market.[55]

The excess investments in technologies that facilitate price-discrimination may present similar inefficient competition. These investments are by no means a trivial matter. By one estimate (from 2004), the cost of implementing an effective loyalty program in the supermarket industry can cost between 1% - 1.5% of a store's revenue, while in other industries the cost can be up to 5% of the firms' revenue. Loyalty programs also take a long time to implement, and need at least 18 months before the firm sees any return on its investment.[56]

As we have pointed out, the advantages of price discrimination accrue to the first firm that adopts it, but can quickly disappear once a competitor adopts the same

---

[53] Armstrong, Supra n__, 30-32. See also, Stole, supra n___, 23-25.
[54] Einer Elhauge, "Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory", Harvard L. Rev. 123(2) December 2009, 397. Stole presents similar conclusions, see Stole, supra n__ , 67-68.
[55] See: Varian, Farrell, and Shapiro, *supra* note __, 30.
[56] Barney Beal. "Getting Loyalty Programs Right" CRM News, 11 July 2004 http://searchcrm.techtarget.com/news/992695/Getting-loyalty-programs-right. Cited in Smith and Rimler, supre n___ 206.

strategy.[57] As Salop and Stiglitz point out, inefficient competition also occurs with respect to exploiting information inequalities: "with costly search, competition may take the form of attempting to find better ways of exploiting the small but finite degree of monopoly power associated with costly search and information."[58]

m. Conclusions for part II.

Part III – Ethical considerations

- **The presumption in favor of price discrimination.**
- **"It hurts consumers"**
- **"It is already illegal (or should be) under antitrust law"**
- **"It is unfair"**
- **"It is deceptive"**
- **"It is socially unjust"**
- **"It punishes savvy shoppers"**
- **"It does not reward true loyalty"**
- **"It increases insecurity and the erosion of privacy"**

[57] Dewan, Jing, and Seidmann, supra n___; Chen, supra n___, 16-17
[58] Salop and Stiglitz, supra n __, 1129.

a. The presumption in favor of price discrimination.

Out discussion of the ethical considerations of using personal information for price discrimination will mainly take the form of analysis of arguments leveled against these practices. It is therefore worthwhile to start with a consideration of the basic preemption in favor allowing the use of personal information to price-discriminate that lead us to place the 'burden of proof' on the arguments against it.

One consideration in favor of supporting price discrimination at the outset is that it is the status quo. This is a rhetorical consideration, not a substantive one. Recognizing that price discrimination is the status quo emphasizes that our moral arguments are a call for change. The rhetorical 'argument from status quo' simply reflects the intuition that the 'burden of proof' should be placed on those who wish to advocate change, and that a higher standard of proof is required to overturn a deeply entrenched practice than an incipient one; after all, it is harder to stop a train in full speed than it is a train just leaving the station.

In the context of our debate, the assertion that price discrimination is 'the way things are' can be taken in two ways: One way is to assert that price discrimination is imbedded in age-old marketing practices such as market haggling and customer segmentation.[59] If so, the case against price discrimination must show that the increasing use of personal information and data mining has the potential for a significantly detrimental 'change in kind' from old ways, and that things are better 'left as they are' by avoiding a change for the worse. A way is to assert that using new information technologies to facilitate price discriminate has already become an established practice. If so, we must make a case why already established information practices should be altered or reversed. We have seen that new techniques for price discrimination are very likely being used today, probably by companies that are still experimenting with them.[60] They have not yet become ubiquitous practice. Rhetorically, then, our argument will be framed as a call to reconsider the consequences of new technologies sooner rather than later.

A second, substantive consideration in favor of allowing price discrimination is that offered by social welfare theory. According to social welfare theory, maximizing overall social welfare ought to be the ultimate normative yardstick for evaluation of legal

[59] See, e.g., Fisher, supra n___, 2.
[60] Supra, pp. ____

rules.[61] Under a social welfare theory, a rule forbidding price discrimination would be almost indefensible as a policy if it tends to lower overall social welfare. As we have seen, economic theory predicts that price discrimination increases of overall social benefit in many cases (but not all), and therefore, should be allowed to continue.[62] It remains a matter of further empirical and theoretical study in economics to show whether the circumstances that cause overall inefficiency (such as the 'prisoner's dilemma' effects) are more prevalent than the efficiency-enhancing effects. But if true, overall social efficiency should suffice to place the burden on those who would argue against restricting price discrimination.

A third consideration is the freedom of contract in liberal theory. While Roman and medieval law employed concepts of 'just price theory' that held that prices had an independent fair price, these concepts have been largely abandoned as legal theories came to be grounded on liberal theories that emphasize contract forming process over end-state justice, and ascribe a purely subjective and utility-based value to things.[63] It is widely held in liberal democracies that business ought to be allowed to carry on freely, unless there are serious reasons to regulate markets.[64] I do not wish to explore this assumption, but merely take it as part of the context of our discussion.

With these considerations in mind, we turn to the ethical considerations against electronically gathering and mining personal information for price discrimination:

b. "It hurts consumers"

As we have seen in the review of the economic literature, the overall welfare effects of price discrimination are inseparable from their effects on consumer welfare.[65] The consumer welfare argument against information practices that increase price discrimination may, therefore, be presented as follows:

---

[61] For an articulation of the argument in favor of a Welfare Economics standard against notions of fairness, and what see: Louis Kaplow and Steven Shavell, Fairness Versus Welfare (2002), 52-62

[62] For the economic analysis see supra, pp. _____. However, the wealth-maximizing effects of price discrimination may not always stand in for an increase in social welfare, see Kaplow and Shavell, Id.

[63] Rick Bigwood, Exploitative Contracts (2003) 179-82. Vestiges of 'just price theory remain, however, in the concepts of unconscionability and in the civil law concept of laesio enromis, see: Larry A.DiMatteo, Equitable Law of Contracts: Standards and Principles (2001) 14-18.

[64] Some of the most influential articulations of this position in the 20th century have been Friedrich A. Hayek, The Road to Serfdom (1944); and Milton Friedman, Capitalism and Freedom (With the assistance of Rose D. Friedman, 1962).

[65] Supra, Part II, pp. _____.

"Some price discrimination methods hurt overall consumer welfare (and that's bad)"

"Some Information practices facilitate price discrimination"

"Information practices that facilitate price discrimination which hurts consumer welfare ought to be circumscribed".

Even the most hard-headed economist ought to concede that price discrimination practices that increase overall welfare but harm consumers overall represents a transfer of wealth from consumers to firms and raises serious ethical concerns. Accepting the contrary would mean preferring corporations to consumers, a position few take. Therefore, we may accept the consumer welfare standard at least as a limit on the complete adoption of the overall social welfare standard.[66]

An objection to the consumer welfare argument is that, while some consumers are worse off under price discrimination, overall consumer welfare is generally improved by it.[67] Some economic models that predict that price discrimination will lower consumer surplus, while increasing firm surplus. These models are inconclusive and require evidence. Therefore, as long as definitive predictions about harm to consumer welfare or to specific groups of consumers cannot be made, we ought not condemn price discrimination outright. [68]

But, it may be further objected, we can't be sure whether price discrimination is hurting overall consumer welfare or not in any given case, without detailed and careful analysis. The models we have looked at do not provide conclusive predictions. It is also unclear what role information practices plays in exacerbating the risks of consumer harms in any given situation, since oftentimes similar results can be achieved using different methods, and targeting the information practices might not be the right solution for the problem.

Ultimately, the consumer welfare argument implies that our attitude should be primarily one based of facts, not just values. In the face of uncertainty, we should adopt a healthy vigilance, caution, and skepticism towards anyone who makes sweeping

---

[66] We return to this argument in the context of the discussion of antitrust law, below, n. ____.
[67] Supra, pp. ___.
[68] A number of scholars make a similar argument, see: Matthew A. Edwards, "Price and Prejudice: the Case Against Consumer Equality in the Information Age" 10 Lewis & Clark L. Rev. 559 (2006); William W. Fisher III, "When Should We Permit Differential Pricing of Information?" 55 UCLA L. Rev. 1 2007-2008, pp. 20-37.

endorsements of new marketing technologies. Adopting consumer welfare as our standard points in the direction of tailoring evidence-based and efficient policies to narrowly target practices that cause clear harms to consumers.

c. "It is already illegal (or should be) under antitrust law"

If some pricing strategies hurt consumers, might they already be illegal? Closely tied to consumer welfare is the argument that existing antitrust law might already apply to information practices that allow firms to extract consumer surplus by price-discrimination, or that the existing antitrust doctrine should be extended to cover these practices. The antitrust argument may be presented as follows:

> **"Antitrust law already prohibits price discrimination by a monopolist that harms competition, because price discrimination is a way for a monopolist to extract more consumer surplus"**
> **"Some information practices allow firms to extract more consumer surplus through price discrimination even in competitive markets"**
>
> ---
>
> **"Antitrust law ought to be extended to prohibit information practices that extract consumer surplus price discrimination, even without harm to competition".**

Existing antitrust laws such as the Robinson-Patman Act in the United States condemn price discrimination that may substantially "lessen competition or tend to create a monopoly".[69] Price discrimination is one of the explicit forms of abuse of dominant position under European competition law.[70] As we have seen,[71] using personal information for price discrimination can allow firms to extract greater consumer surplus,

---

[69] 15 U.S.C. 13(a):
"It shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly, to discriminate in price between different purchasers of commodities of like grade and quality, where either or any of the purchases involved in such discrimination are in commerce, where such commodities are sold for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, and where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with customers of either of them…"

[70] Article 102 of the THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION (TFEU) Official Journal of the European Union C 115/49

[71] Supra, pp. ___. I am less familiar with E.U. competition law, so I will limit my comments to U.S. law on this matter.

restrict competition, and deter entry of a rival into the market. Could competition authorities rely on a broad reading of these statutes already in order to restrict certain uses of personal information as antitrust violations?

A preliminary objection is that the consumer welfare standard may not be the correct antitrust enforcement standard. If so, harm to consumer welfare would hardly matter, unless there was also harm to overall social welfare. In the U.S. a lively academic debate ensues over the underlying objectives of antitrust law, with a powerful faction arguing that consumer welfare is the true antitrust enforcement standards, both as a matter of the legislative intention and as a matter of the actual practice of the courts.[72] For the purpose of this paper, I will assume that antitrust law is primarily concerned with protecting consumer welfare.

An important difference between treatment of price discrimination under the Robinson-Patman Act and the proposal to extend the law to retail differential pricing is the entity that the law is meant to protect. A claim of Robinson-Patman violation generally must show harm to competition, that is, that a competing business was harmed, consistent with the broader antitrust policies.[73] The court's analysis does not consider the harm to the disadvantaged customer.[74] Protecting consumers against differential pricing would require an entirely different analysis altogether, which would focus more closely on the harm to consumers.

A second difference is monopoly power. The Robinson-Patman Act condemns price discrimination only insofar as it is done in restraint of competition or monopolization. Indeed there may be a special case to be made that price discrimination strategies that allow a monopolist to raise significant barriers to entry should already fall

---

[72] See: Steven C. Salop "Question: What is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard" 22 Loy. Consumer L. Rev. 336 (2009-2010);
Robert H. Lande "Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged" 34 Hastings L. J. 67 (1982-1983);
Russell Pittman, "Consumer Surplus as the Appropriate Standard for Antitrust Enforcement" 3 Competition Policy International 205 (2007);
For a slightly different view on the role of the consumer welfare standard in antitrust see: Joseph F. Brodley "The Economic Goals of Antitrust: Efficiency, Consumer Welfare, and Technological Progress" 62 N.Y.U. L. Rev. 1020, 1987.
The contrary view cited by these authors was most prominently championed by the late Robert Bork and by Richard Posner: Robert H. Bork, THE ANTITRUST PARADOX (1978); and Richard Posner ANTITRUST LAW: AN ECONOMIC PERSPECTIVE, (1976) respectively.

[73] See See: FTC Guide to the Antitrust Laws ("FTC"), available at: http://www.ftc.gov/bc/antitrust/price_discrimination.shtm (accessed April 15, 2013)

[74] Ref. For example, a defense under the Robinson-Patman Act is that the firm lowered its price in good faith to match a competitor's offer, a defense that ignores the harm to the disadvantaged consumer who does not receive such an offer. See FTC, supra n___.

within the scope of existing laws.[75] In contrast, we are especially concerned that over discriminatorty pricing strategies extract consumer that surplus in competitive markets, but do not otherwise restrain competition.[76] The crucial question is whether doctrines designed to protect consumer welfare from the harmful affects of lessened competition should apply to consumer welfare harms when competition remains robust.

Douglas Kochelek argues that currently "[d]ata-mining-based price discrimination schemes fall into a gap between antitrust doctrine and the policies underlying the doctrine", but are not currently illegal.[77] Kochelek recognizes that price data-mining could allow competing firms to tailor individual prices to consumers in ways that extract a greater share of the surplus into their pockets. Price discrimination of this sort may also be wasteful or resources in developing the techniques and technologies, and incur other inefficiency losses that are tantamount to the surplus and deadweight loss effects of monopolization. Therefore, he argues that antitrust doctrines should be expanded to deal with cases where price discrimination hurts consumer even without harm to competition.[78] He does not tell us what those new doctrines might look like.

In contrast, Mark Klock argues that "[t]he Robinson-Patman Act, at least as historically applied, is an ineffective weapon against price discrimination".[79] Rather than try to treat new retail price discrimination practices under an antiquated law, Klock proposes that certain instances of price discrimination be incorporated into the unconscionability doctrine. The unconscionability doctrine can serve as the basis for FTC enforcement, and (through federal and state legislation) provide for a private right of action against companies that engage in price discrimination. Klock's proposed unconscionability rule would require a combined finding of discriminatorty pricing and harm to overall welfare. This approach, he argues, is better than focusing on monopoly

---

[75] For a similar argument see, e.g. Einer Elhauge, supra n___, 216-21, with respect to loyalty discounts.

[76] See supra pp. ____. To be sure, some of the models that show this result are highly simplified two-firm models, a condition that would be considered highly concentrated in the real world. Nevertheless, we may assume for the sake of argument that such price extraction effects are at least plausible under other imperfect competition conditions.

[77] Douglas M. Kochelek, "Data Mining and Antitrust" 22 Harv. J. L. & Tech. 515, (2009), 535.

[78] Kochelek, Id., "Unless antitrust doctrine adapts to the economic losses potentially imposed by data-mining-based price discrimination, increased deployment of the technology may reduce consumer welfare, waste resources, and reduce allocative efficiency in exchange for increased producer profits that are insufficient to justify their cost".

[79] Mark Klock, "Uncoscionability and Price Discrimination" 66 Tenn L. Rev. 317, 378 (Winter 2002). Klock does not rule out the applicability of the Robinson-Patman Act to marketplace price discrimination, and accepts that "[t]here may be some scope for creative attorneys to bring colorable claims and for open-minded judges to be receptive to them within the existing law" (Id).

power. After all, it is possible for a monopolist to engage in fair pricing, and for a competitive firm to engage in unfair and immoral discriminatory pricing. Therefore, uncoscionability, not monopolization, would be a better doctrine that distinguishes between price discrimination with legitimate justifications and price discrimination that is purely opportunistic, regardless of competitive effects (Klock's docrine is discussed further on).[80]

Matthew Edwards also concludes that the Robinson-Patman Act does not mandate an equal-pricing policy for end consumers, especially because of the harm to competition requirement.[81] Like Klock, Edwards argues that other legal doctrines are better suited to "protect consumers against odious business practices while still preserving the potentially beneficial effects of price discrimination."[82]

A further objection is that the Robinson-Patman Act is very a bad model to adopt. It is widely criticized as a deeply flawed law for dealing with commercial price discrimination.[83] Considering the severe shortcomings of the Robinson-Patman Act, Hagit Bulmash has made a case for its complete repeal. She argues that it is misconceived in its scope and aims, since it prohibits price discrimination practices that foster competition, while the procedures for bringing a complaint under the Act can themselves harm competition.[84] Without making an opinion, these criticisms should caution against extending a defunct doctrine to new kinds of cases.

To conclude, the underlying standard of antitrust law—protecting consumer welfare—should also guide policy against marketing practices that use consumer information to extract a greater share of the surplus. But that is as far as the analogy to antitrust law can take us. The analogy does not inform the kind of regulatory regime would need to adopt in order to protect consumers welfare from welfare-extracting pricing strategies. Antitrust laws are against monopolization are designed to allow a competitor (or the FTC) to bring an action against a firm, when its actions threaten to entrench and fortify its dominant position. U.S. Courts have adopted a rule of reason for addressing these situations, and remedies that that remove specific anti-competitive

---

[80] Klock, Id. at 373-383.
[81] Matthew A. Edwards, "Price and Prejudice: the Case Against Consumer Equality in the Information Age" 10 Lewis & Clark L. Rev. 559 (2006) pp. 575-83.
[82] Id., 596.
[83] Find citation.
[84] See, e.g., Hagit Bulmash, "An Empirical Analysis of Secondary Line Price Discrimination Motivations" J. Comp. L. Econ. 8(2) (2012), 361-397. See also Klock, supra n ___, 359-363 note 269.

practices on a case-by-case basis.[85] These cases are tremendously expensive and time consuming to litigate. It is doubtful whether regulation through a private cause of action is the best way to deal with retails pricing practices that gouge consumers.

Antitrust may be related to corporate use of consumer information in other ways. Discussing the cost of Google's dominance in online services, Nathan Newman argues that Google's unparalleled control of vast stores of consumer information is not only an invaluable tool for Google and its clients to engage in retail price discrimination,[86] it is also central to maintaining Google's monopoly in online advertising markets.[87] While this argument goes beyond the scope of this paper, if correct, Newman's argument raises interesting questions about the immense competitive advantages that firms can attain from access to vast stores of consumer information.

As a final thought, it is worth considering also whether it might be appropriate to adopt an antitrust *exception* for agreement not to engage in price discrimination. The economic literature shows that, under certain conditions, price discrimination can be socially inefficient and harmful to consumers at the same time. In these situations, competing firms are caught in a prisoner's dilemma, each compelled to price-discriminate even though this strategy hurts them both.[88] A possible solution for such situations might be a limited antitrust exception that would allow competing firms to agree not to engage in price-discrimination. I suggest "collusion as a solution" for further thought, without taking a position on it.

d. "It is unfair"

The argument against price discrimination from consumer welfare and antitrust law focuses on the overall welfare of consumers, an effect that is hard to prove and to correct. A more intuitive argument is that discriminating among consumers is unfair. As Paul Krugman wrote: "…dynamic pricing is also undeniably unfair: Some people pay more just because of who they are".[89]

The fairness argument may be presented as follows:

"Fairness means that equal people should be treated equally".

---

[85] See: FTC, supra n___.
[86] Newman, supra n. ___ 50-52.
[87] Newman, supra n. __ 12-38.
[88] Supra, p. _____.
[89] Paul Krugman "What Price Fairness?" The New York Times 10/4/00.

"Price discrimination offers equal people products for unequal prices".

"Price discrimination is unfair".

Next to consumer welfare (which can conceivably be measured by economists), the concept of fairness seems highly subjective. As Robert Weiss and Ajay Merorta pointed out: "When two reasonably similar individuals are charged different prices for the same goods and services, there seems to be something patently wrong. Price discrimination appears to elicit a visceral negative reaction."[90]

A number of studies have explored the attitudes of people towards price discrimination. One well-known study of attitudes towards price discrimination found that 91% of respondents thought that it is not OK for a supermarket to charge different people differently, and an equal percentage thought it was not OK for a store to charge them based on what the store knew about them. 87% of respondents thought that it was not OK for online to charge different people different prices for the same product during the same hour, 84% thought that websites ought to inform customers if they engaged in discriminatory pricing, 76% said that it would bother them to learn that other people pay less than them for the same products and 64% responded that it would bother them to learn that other people get better discount coupons than they did for the same products. 72% disagreed that it was OK for a store to charge them less money in order to keep them as a loyal customer more than keeps others.[91]

Another qualitative study of attitudes towards information practices in the consumer context, conducted in the United Kingdom, showed that respondents were concerned about price discrimination, and other practices that limit their choice as consumers.[92]

It is important to clarify that the fairness argument is not an argument for a "rigidly enforced consumer equality rule", of the kind vehemently opposes by Matthew Edwards.[93] Indeed, we noted that enforcing price-equality could be unwise and lead to higher prices overall than those offered if price-discrimination is allowed.[94] Rather,

---

[90] Robert M. Weiss and Ajay K. Mehrotra "Online Dynamic Pricing: Efficiency, Equity and the Future of E-Commerce" 6 Va. J. L. & Tech 11, Summer 2001,. Para. 19.
[91] Joseph Turow, Lauren Feldman, and Kimberly Meltzer ""Open to Exploitation: America's Shoppers Online and Offline", Annenberg School of Communication Departmental Papers (ASC) 2005, http://repository.upenn.edu/asc_papers/35 pp. 17-25.
[92] Demos, Private Lives: a People's Inquiry into personal Information (2010), pp. 55-6. http://www.demos.co.uk/files/Private_Lives_-_web.pdf?1269213706
[93] Edwards, supra n___, 589.
[94] Odlyzko, supra n____.

consumers hold conceptions of fairness that are more subtlety nuanced than simple strict equality.

Sarah Spiekermann, in an empirical study using questionnaires, explores perceptions of fairness in retail pricing. There are two main conceptions of fairness involve: those based on 'procedural justice' – the process by which the allocation is conducted, and 'distributional justice' – the perception that a person's rewards be commensurate with her investment, relative to a comparable reference point. [95] Spiekermann found that respondents perceived transactions as more fair when they were given an opportunity to self-select the price level they prefer and were given rational grounds for different prices. Not surprisingly, those who paid more perceived the transaction as less fair overall than those who paid less. Spiekermann notes that although respondents may not abandon stores they perceive as unfair, they will be more wary and suspicious of them in the future.

A similar survey-based study by Kelly Haws and William Bearden found that perceptions of unfairness and lower satisfaction were felt only among those who experienced higher prices (as compared with a given comparison price), not by those who got a good deal. Perceptions of fairness were higher when consumers were given in a role in setting the price (i.e. in a bid-pricing setting) than they were when prices were set unilaterally by the retailer. Haws and Bearden found that perception of fairness were low when prices varied over a short period of time, but not when the chance in price occurred after more than a month.[96]

Similarly, Kannan and Kopalle suggest that significant features that undermine consumer trust in firms are changes in posted price that appear random or targeted on an arbitrary basis. In contrast, coupons that offered openly to all consumers usually evoke less distrust, since they depend on the self-selection of customers who choose to seize the opportunity for a discount. For the same reason, few consumers oppose loyalty programs and other schemes that raise switching costs, as long as they are self-selected by consumers.[97] The same logic explains why dynamic pricing for non-perishable goods often encounters more hostility than dynamic prices for perishable (time-sensitive) goods, such as airline tickets and hotel accommodation, which the public accepts as a fair

---

[95] Sarah Spiekermann "Individual Price Discrimination – An Impossibility?" Mimeo, 2006. Available at: http://www.isr.uci.edu/pep06/papers/PEP06_Spiekermann.pdf

[96] Kelly L. Haws and William O. Bearden, "Dynamic Pricing and Consumer Fairness Perceptions" J. of Consumer Research 33(3) (December 2006) pp. 304-311.

[97] This is not always true, see critique of loyalty programs below, at p. ___.

yield-management strategy. The key to consumer trust, argue Kannan and Kopalle, is that pricing strategies be "transparent to consumers, so that they can self-select in the plan that is optimal for them, and are able to understand the basis for the dynamic pricing structure."[98]

These studies point to (at least) two understandings of fairness: one that is based on the equity of the price as compared with a perceived 'fair price', and the other that is based on the fairness of the distinguishing criteria that lead to different prices.[99] Both kinds of fairness seem to be important to consumers. Relying on these results, we might strongly condemn as unfair those forms of price discrimination that do not allow people choice, such as targeted discounts and coupons based on hidden data mining. On the other hand, we would be more accepting of price discrimination practices that are self-selecting and based on socially accepted criteria, such as quantity discounts and loyalty programs.

One objection to the fairness argument is to question whether, if unfairness is purely subjective, should it be addressed by law at all? After all, the research shows that unfairness was felt primarily by those who suffered a higher price, not by those who benefited from the lower price. Perhaps one person's 'fair' is another's 'unfair'. It is hard to conceive of an enforcement standard based entirely on the subjective perception of the individual. Moreover, research in behavioral economics, such as the famous "ultimatum game", has shown that people prefer fairness, even when it leads to results that do not reflect economic efficiency. Andrew Odlyzko argued that the dislike of unfairness, even in the face of greater efficiency, is likely to be a powerful factor inhibiting the spread of price-discrimination strategies.[100]

A second objection is that fair distinctions are highly contingent upon social norms and contexts. Racial and gender discrimination is clearly wrong, but we tend to accept, for example, age-based discounts for movies, wealth-based discounts (in the form of scholarships) that benefit the poor in university tuition, and prices based on time of purchase for airline tickets. What we accept as legitimate discrimination seems to be rooted in social convention, not principle.[101] Even when the criteria for discrimination are made known, it is hard to know which distinctions will strike people as fair and which won't.

---

[98] Kannan and Kopalle, supra n__ 71-73, 79.
[99] See a similar distinction in Fisher, Supra n. __ 28-31.
[100] Odlyzko, supra n___, 3, 9-16.
[101] See: Spiekermann, supra n. ___ pp. 5-6, Fisher, supra n. ___ pp. 27-31, Klock, supra n___, pp. 359-63; Edwards, supra n.__ 589-91.

Unfairness is a term already employed within the FTC Act.[102] Mark MacCarthey argues that the FTC should interpret the unfairness standard to curtail information practices that cause harm, including price discrimination.[103] The unfairness standard is more appropriate than the deception standard for dealing with new information practices, because the harms they cause often take the form of negative externalities from the privacy preferences of others, whereas the deception standard only applies to practices that impair the individual's ability to choose for herself. However, in MacCarthy's opinion, FTC action against certain information practices should only be applied when there is provable harm under an objective overall social welfare standard, without any countervailing social benefits.[104] Subjective perceptions of unfairness are not enough. But MacCarthy essentially avoids a concept of unfairness as a personal feeling of inequity in favor of a test that reduces unfairness into a cost-benefit analysis.[105]

In conclusion, unfairness may be an intuitive reason for objecting to information practices that seem to arbitrarily favor one person over another. It does not, however, readily suggest any policy. Unfairness is highly subjective and difficult to define. In addition, a cost-benefit view of fairness as social welfare the fact that price discrimination routinely harms certain groups in society while favoring others. We next turn to examine two arguments that overcome this difficulty: that price discrimination practices are bad because they are deceptive, and that price discrimination is socially unjust.

e. "It is deceptive"

In our discussion of fairness we noted that people who discover that another comparable person paid a lower price for the same product at the same time regard this fact as patently unfair. Studies of consumer attitudes suggest that consumers believe there is a duty to inform them of the lowest available prices. In a questionnaire survey, 62% of respondents wrongly believed that it was illegal for online shopping sites to charge different people different prices at the same time of day. 71% of respondents wrongly believe that it was illegal for an offline store to charge different prices to different people at the same time of day. 68% of people wrongly believed that travel

---

[102] 15 U.S.C. 45(n)
[103] Mark MacCarthey "New Directions in Privacy: Disclosure, Unfairness and Externalities" 6 I/S: J. L. & Pol'y for Info. Soc'y (2011) 425-695.
[104] MacCarthey, supra n___, p. 469.
[105] Id., p. 485.

comparison shopping sites like Expedia and Orbitz must, by law, include the lowest airline prices.[106] Participants in a UK qualitative study reported uneasiness over the knowledge that consumer information would give businesses power that would be used to price discriminate in ways they weren't aware of, and they stated a desire for transparency in the practice. They also exhibited lack of awareness about where and to what extent this happens.[107] These studies reflect a feeling among consumers that a market norm should exist whereby sellers make their lowest prices known to all, and do not exploit consumer ignorance.

Might someone who bought a product and then discovers that the store sold it for less to another person claim she was deceived? The deception argument may be presented as follows:

> **"Deception essentially means hiding or misrepresenting material facts about the product from the buyer in order to get her to pay more".**
> **"Price discrimination hides the availability of lower prices from buyers who would otherwise choose to pay less".**
>
> ---
>
> **"Price discrimination is deceptive. Sellers have a duty to disclose their lowest prices".**

Immanuel Kant believed that a storekeeper had a moral duty to charge all customers equally:

> "…that a dealer should not overcharge an inexperienced person certainly accords with the duty [the good will –a.m.]; and where there is much commerce, the prudent merchant does not overcharge but keeps to a fixed price for everyone in general, so that a child may buy from him just as well as everyone else may. Thus customers are honestly served, but this is not nearly enough for making us believe that the merchant has acted this way from duty and from principles of honesty; his own advantage required him to do so."[108]

---

[106] Turow, Feldman, and Melzer, supra n___, 17-25.
[107] Demos, Private Lives: a People's Inquiry into personal Information (2010), pp. 55-6. http://www.demos.co.uk/files/Private_Lives_-_web.pdf?1269213706
[108] Immanuel Kant "Grounding for the Metaphysics of Morals" (James Ellington, trans. 1981), in Moral Philosophy: a Reader (Louis P. Pojman, Ed., 1993). I thank Helen Nissenbaum for sending me this excerpt.

This passage from Kant's introduces the central dilemma of treating price discrimination as a form of deception: is it a moral imperative or merely a convention of business that may be set aside when there is a commercial advantage to do so?

Jewish law took the approach that pricing significantly over market price was a *sui generis* form of fraud (*Ona'a*), even without coercion or deception. Recognizing that sellers were entitle to fair profits, the Talmudic sages adopted a standard according to which over-pricing of a sixth above market value was invalid, and the buyer could demand return the difference or cancel the transaction within the reasonable amount of time it would take to discover the mistake by consulting with another merchant or expert.[109] A number of rules limited the application of *Ona'a*,[110] but the principle reflects a assumption that a significant over-pricing must be the result of unfair exploitation of information differences.

In contrast, U.S. law on contract mistake[111] and misrepresentation[112] seems to preclude the notion that a seller has a duty to disclose information about its lowest prices, unless such the non-existence of a lower price were somehow regarded as a basic assumption on which the buyer relied, and the seller had a duty to disclose such a price based on an implicit assumption of risk or relation of trust; Clearly, an impossibly tall order for most ordinary retail situations.

Anthony Kronman's famous analysis[113] would categorically deny any duty on the seller to disclose information about her lower prices. After all, if the buyer would change her decision based on the existence a lower price, she bears the risk and the should seek

---

[109] See Itamar Verhaftig "Consumer Protection: Price Fraud" in Crossroads: Halacha and the Modern World, Vol. II," (Published by Zomet Institute, Alon Shvut-Gush Etzion, Israel) available at: http://www.jlaw.com/Articles/price_fraud.html (accessed 4/19/13); Nahum Rakover, Commerce in Jewish Law (1987) pp. 19-23 (in Hebrew).

[110] For example, there are disputes over the period of time to demand cancellation, kinds of transactions where *Ona'a* doesn't apply, and the conditions when parties can stipulate and waive *Ona'a* and accept higher prices.

[111] Rest. 2d Contr. § 153, According to the restatement, A contract may be voidable because of the mistake of one party, only: "[w]here a mistake of one party at the time a contract was made as to…a basic assumption on which he made that contract has a material effect on the agreed exchange of performances that is adverse to him, the contract is voidable by him if he does not bear the risk of the mistake… and, (a) the effect of the mistake is such that the enforcement of the contract would be unconscionable, or (b) the other part had reason to know of the mistake or his fault caused the mistake."

[112] Rest. 2d Contr. § 159, The Restatement defines misrepresentation "a false assertion of fact…". Non-disclosure of a fact is tantamount as a false assertion only in limited circumstances, where disclosure is necessary to correct a previous assertion or material mistake party, or where there is a previous relation of trust. See Rest. 2d Contr. § 161

[113] Anthony T. Kronman, "Mistake, Disclosure, Information, and the Law of Contracts" 7 J. Legal Studies 1 (1978).

out the information for herself. The seller has no duty to disclose information that would undermine her pricing strategy. Her information advantage is her property.

Clearly, a liberal policy would not seek to deprive a seller of all information advantages and discretion over pricing strategy. Rather, following Kronman, the argument that price discrimination is a kind of deception applies only to those marketing practices that hide lower prices from consumers who would not buy at the higher price if they knew about the existence of lower prices, and cannot acquire that knowledge with reasonable effort. In this respect, it does not matter if the lower price was in the form of an individually targeted coupon, or if the lower price could be enjoyed by anyone but the knowledge of its availability was only provided selectively or required inordinate effort to discover. It does not apply to marketing tools such as loyalty cards, quantity discounts, and introductory offers that are known and available to all customers, even if not all customers enjoy them.

As the economic literature demonstrates, some kinds of price discrimination practice depend on information asymmetry between buyer and seller.

One group of pricing strategies exploits the differences in search costs among buyers, offering low prices to savvy shoppers and high prices to those who do not know that a better price is available. Examples are posting high prices in stores but offering discount coupons online and offering occasional sales to entice patient shoppers who follow the ads. Sellers might deliberately introduce "noise"—factors that make it difficult for a customer to learn about the availability of a lower price—in order to differentiate shoppers with high and low search costs.[114]

As we noted earlier, consumers are prone to errors about the prices available in the market due to high search cost and bounded rationality, especially as pricing schemes become more confusing and opaque, and such errors may result in market inefficiencies.

Some firms deliberately count on that. Firms, such as mobile phone or cable companies, have been known to offer high prices to the general population, but will give a discount to those who complain, haggle, or threaten to quit. This practice is highly disfavored by consumers. As one columnist pointed out (with respect to Comcast): "Haggling is not costless…", consumers pay through the "stress and irritation customers

[114] Steven Salop, "The Noisy Monopolist: Imperfect Information, Price Dispersion and Price Discrimination", The Review of Economic Studies, Vol. 44 No. 3 (Oct. 1977), pp. 393-406: "random sales, changes in product specifications and packaging, product lines with some contrived heterogeneity, vague guarantees, and other forms of "noise" in price and quality"; see also Varian 1989, Supra n. 637-8, 646-7;

feel when they're forced to call Comcast reps and lie to them every few months."[115]

It is sometimes argued that higher search cost might be a proxy for lower price-elasticity.[116] In other words, paying more is a preference: frugal people clip coupons and look for bargains, while spendthrifts don't mind paying more, or prefer quality over lower price. This is not always true. There are price-sensitive shoppers who nevertheless have high search costs. Consider people without access to the internet, or without the knowledge or time to go comparison shopping. Faced with higher prices, these consumer do not look for a better deal elsewhere. They simply don't buy any product at all.

Some pricing strategies exploit the "myopia" of consumers regarding the use of their personal information. In some pricing strategies based on purchase history, firms make lower introductory offers to first-time consumers to learn their price-sensitivity, then offer them higher prices on future purchases after they revealed their taste and willingness to pay for the product. This strategy depends on new-shoppers not being able to anticipate that the information they provide will be result in paying high prices in the long run.[117]

Tal Zarsky points out that myopia afflicts not just of a few shoppers, but is a more general problem with the use of personal information in marketing. All shoppers are necessarily unequipped to assess the various advantages and disadvantages that may result to them from the surrender of their personal information. The collection of consumer information often takes place long before the market consequences are realized. Consumers are never provided with the whole picture of how their information will be gathered, analyzed and used, and cannot assess the dangers and repercussions to them, especially considering the growing sophistication of data mining tools. For this reason, regulation of information practices such as disclosure and consent requirements

---

[115] See Timothy B. Lee, "Why Comcast's Price Discrimination Strategy Makes Me Hate Them", Forbes 6/06/13:

[116] See Salop "The Noisy Monopolist", Supra n. __ at 393: "Suppose that demand conditions are such that the monopolist would like to price discriminate against the less efficient information-gatherers; that is, suppose the submarket consisting of inefficient consumers is more price inelastic. Given these potential gains from discrimination, the monopolist must also discover some method of identifying the inefficient, price inelastic consumers. Simply permitting dispersion is such a method since less-efficient information gatherers will search less and thus on average pay higher prices than will efficient searchers".
This assumption is also apparent in Kannan and Kopalle, supra n___, p. 70: "Consumer shopping on the Internet can be viewed as belonging to two distinct segments: those who value convenience and time, and are less price-sensitive, and those who compare prices from multiple vendors and are more price-sensitive".

[117] Aquisti and Varian, supra n.___.

at the point of information gathering are misplaced. The solution to this myopia, Zarsky argues, is to regulate the use of consumer information data-mining by retailers, not the information gathering practices.[118]

From an economic standpoint, paying above a person's actual willingness to pay or not making a purchase at all because of myopia, high search costs, or miscalculation represent sub-optimal shopping – an allocation inefficiency.[119] The economic inefficiencies cased by the wrong choices of confused customers are a good reason to intervene against pricing practices that hide choices by customers.

Traditionally, consumer protection law has been concerned with practices that mislead consumers. A number of scholars have proposed new paradigms of consumer protection that would also include pricing practices:

Neil Averitt and Robert Lande advocate for adopting an integrated approach to both Antitrust and Consumer Protection law, based on their concept of "Consumer Sovereignty" – the notion that those laws are in place to protect, to the greatest possible extent, consumer's ability to rationally chose among options.[120] Antitrust law prevents market failures that artificially limit the choices offered by firms, whereas consumer protection law prevents market failures that inhibit consumer's internal (mental) ability to make rational and informed choices among market options.[121] Although they do not discuss price discrimination practices, Averitt's and Lande's approach might easily be applied to pricing practices that seriously impair consumers ability to compare offers and prices, especially those practices that deliberately hide the lowest prices available in the market from some consumer. In such cases, requiring firms to clearly disclose their lowest prices to all consumers may be appropriate.

Mark Klock, already mentioned earlier, proposes a new understanding of unconscionability understood as price discrimination without a cost justification. Indeed, unconscionable contract cannot be understood as anything but treating some worse than others, even though there is no fraud or duress involved.[122] The market failure and consumer lock-in associated with the information practices that enable price discrimination are the *sine qua non* of real unconsionability, and that which puts the

---

[118] Zarsky, Supra n. ___ 40-46.
[119] Varian 1989, 647.
[120] Neil W. Averitt and Robert H. Lande, "Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law" 65 Antitrust L.J. 713 1996-1997.
[121] Averitt and Lande, Id.
[122] Klock, supra n.___, pp.373-6.

doctrine on a solid economic ground.[123] By adopting a new understanding of this old legal doctrine, courts could invalidate contracts and order damages for disadvantaged consumers, and can inspire new legislation and FTC action.[124]

Daniel Barnhizer offers another paradigm of consumer protection which centers on the disparity of bargaining power between seller and buyer. According to Barnhizer, the allocation or rights to use or withhold consumers' personal information, may be taken as a metaphors for the allocation of bargaining power between buyer and seller. The seller's power to use personal information to target consumers with personalized products and prices while raising the costs of comparing options and especially praying upon those with weaker bargaining positions and skills.[125] Barnhizer advocates for adopting information practices and tools that enhance consumer bargaining power, and strike a better balance in bargaining power between consumers and producers across various types of transactions.

Iain Ramsey borrows the expression 'informed bewilderment' from the work of Manuel Castells[126] to describe the condition that makes it increasingly difficult for individuals to plan their lives, including their difficulty in making market decisions. The place of the consumer in capitalist society is closely tied to aspects of personal identity. Ramsey argues that consumer protection should go beyond a paradigm of protecting especially vulnerable consumers and enabling consumer rationality. Rather, "greater attention should be paid to understanding the impact of information policies in protecting consumers and also to devising imaginative new information policies."[127] Ramsey doesn't venture concrete proposals, but suggests that securities laws force the disclosure of firms' consumer information collection practices in order to ensure greater public accountability and advocacy by consumer groups.[128]

In conclusion, market inefficiencies caused by impaired consumer choice provides a good economic reason for condemning certain pricing practices. New paradigms of consumer protection—as consumer sovereignty, bargaining power, or identity—allow more room to consider the affects of information inequality on pricing.

---

123 Id. 353-67.
124 Id. 379-81.
125 Daniel D. Barnhizer, "Propertization Metaphors for Bargaining Power and Control of the Self in the Information Age" 54 Clev. St. L. Rev. 69, 90.
126 Iain Ramsey, "Consumer Protection in the Era of Information Capitalism" in _____, 45, 56.
127 Id., 60.
128 Id., 62.

Whether these approaches would support a rule requiring disclosure of a sellers lower price remains a matter of debate.

As a final thought, we might also consider whether a rule requiring a seller to disclose her lowest price may not also be advisable as a precautionary rule under the other arguments of unfairness, consumer welfare and antitrust. If those arguments are true, the best way to avoid those complaints be to force the disclosure of a seller's lowest price, so that the seller could would not be able to employ pricing strategies that consumers find unfair or unduly extract consumer welfare.

f. "It is socially unjust"

Our discussion so far has considered possible arguments against pricing practices that harm the totality of consumers (consumer welfare, antitrust) or disadvantage individuals (unfairness, deception). We next turn to consider whether pricing practices that habitually harm certain social classes deserves special scrutiny. Here, we do not consider wealth transfers between buyers and sellers, but relative advantages and disadvantages among different classes of consumers. The social justice argument may be presented as follows:

> **"Social justice in the marketplace means equal access to all products and services, and that all customers willing to pay are treated the same. Exclusion and discrimination based on illegitimate grounds is wrong".**
>
> **"Information practices used in price discrimination habitually disadvantage certain classes of people, offering them higher prices, worse treatment, and less information about choices and options. These classes tend to be the traditionally impoverished and adversely discriminated classes in society.**

"Price discrimination is socially unjust".

"'[M]y money is as good as anyone else' has been a common American expression, but that may no longer be true",[129] warns Joseph Turow. This statement sums up the fear that an important market value—that anyone who can afford a product or service should receive it on equal terms—is being eroded. The concern is that market treatment is no longer tied the money in your pocket, but to who you are, or perceived to be, in the eyes the seller.

The social justice argument is that customer-information based price discrimination practices leads to harms to those deemed as "low value customers" that go beyond the simple disadvantages the come with not having enough money. If the same individuals are consistently tagged as "low value customers" and are regularly offered higher prices, fewer options, or worse treatment as customers, might there be a social harm? And should we recognize this harm even if total consumer welfare is improved, and no one is deceived or confused about the price? In a sense, the social justice argument is similar to the unfairness argument, except that here we are dealing not with the unfairness to the individual consumer for a single instance of differential pricing, but the injustice to classes of consumers who routinely face disadvantageous pricing and treatment.

As we have seen, consumer data aggregators such as Acxiom segment the consumer population to narrow groups based on their shopping habits.[130] Joseph Turow points out that data mining in retail has led to sharp divisions between niches of customers. Many of the differences have little to do with pricing. Preferred, high-value customers are courted by firms and receive the best service and treatment by sales staff who build personal relationships who strive to please, while other customers face long waiting times for customer service on the telephone, and indifferent attention from store staff.[131]

The division among consumer niches ultimately reaches price treatment too. In department stores like Bloomingdales, for example, preferred customers receive special offers, advance information about sales events that match their buying profiles coupons, and special discounts at the point of sale (these practices are sometimes called "pre-selling" or "clienteling"). Stores such as shop-rite often learn about their preferred customers through loyalty card, so that the advantages gained through the loyalty cards are enhanced for a segment of the highest value customers among loyalty card holders.

---

[129] Turow, supra n___, 189.
[130] Supra, p. ___.
[131] Turow, supra n___ 132-140.

Some stores actively try to dissuade low-value customers who only shop for sales (know as "cherry-pickers") by adopting stricter rules on returns and price-matching, and by discontinuing items that turn out to be favored by them. The impetus to recognize and sort consumers the moment they enter the store (and track them throughout their shopping) is behind experimentation with new technologies such as hand-held scanners and RFID.[132]

Oscar Gandy describes how the complex web of technologies that collect, process, and share information about individual amount to what he calls the "panoptic sort" – a disciplinary surveillance which allocates the options and opportunities in the modern capitalist economy.[133] As Gandy wrote:

> "The panoptic sort is more concerned with the avoidance of loss than with the realization of gain. Although on the face of it this statement may seem to be in conflict with assumptions about profit maximization, if we recognize that cost reduction and the avoidance of loss are what make the realization of profit possible, the emphasis is not far afield. Yet the claim made here is meant to be as provocative as it sounds. The panoptic sort is primarily a defensive technology. It operates through victimization, through avoidance. Although marketing targets are eventually identified and selected, these targets are the individuals who remain on the list after the high-risk and the sure losers have been eliminated from the pool…
>
> The panoptic sort victimized because it decontextualizes. Status is divorced from circumstance. The circumstance cannot be recaptured; an assessment will always be incomplete. However, the ways in which context is misrepresented are not randomly distributed but reflect an institutional bias; a bias established by race, gender, age, class, culture, and consciousness".[134]

Gandy is quite explicit that this sorting affect primarily the poor:

---

[132] Turow, supra n___, 140-7.
[133] Oscar H. Gandy Jr., The Panoptic Sort – a Political Economy of Personal Information (1993), 15.
[134] Gandy, Supra n. __ 17-18.

> "The poor, especially poor people of color, are increasingly being treated as broken material or damaged goods to be discarded or sold at bargain prices to scavengers in the marketplace".[135]

The adverse effect of the panoptic sort is in its tendency to limit the options of that are presented to individuals, and increases the information gap between the haves and have-nots. For Gandy, therefore, the problem of the panoptic sort, along with its effects on marketing and pricing, is a victimization of the poor and excluded. The exclusion goes beyond the mere disadvantages of not having enough money to pay, but amounts to a mistreatment of a social classes already the victims of past biases.

Helen Nissenbaum writes that the outrage over sorting comes from the feeling that individuals are held unreasonably or unfairly to account for past behavior or social status, and having potentially important decisions about their market standing made without the guarantee of transparency, non-arbitrariness, and relevant criteria. Information aggregators are particularly susceptible to this objection, since they take into consideration information that may have little to do with past market behavior as indicators of future market choices. For Nissenbaum, the crux of the problem seems to be that assemblages of information about consumers are used to sort consumers in ways that are manipulative, paternalistic, and non-transparent, and reflect the power disparity between the strong market actors and the much weaker consumers.[136]

Internet shopping has been expected to end past social inequality in marketing. For example, research has shown that minorities and women regularly pay more than white males when buying a new car in traditional car dealerships. These differences probably result more from differences in income, education, and search-costs rather than overt prejudice. Using anonymous price-comparison website eliminates those disparities.[137] However, if users are identified and targeted with different prices on the Internet based on their personal attributes, and as the processes for sorting customers and the information used becomes more standardized and shared among retailers, it is reasonable to assume that those who will be adversely affected will be the same groups who have previously suffered adverse treatment in the marketplace.

---

[135] Id. at 2.

[136] Nissenbaum, Supra n. ___, 206-211

[137] Fiona Scott Morton, Florian Zettelmeyer, and Jorge Silva-Risso. "Consumer information and discrimination: Does the Internet affect the pricing of new cars to women and minorities?." Quantitative Marketing and Economics 1.1 (2003): 65-92.

Some disagree. Lior Strahilavitz has argued (in the context of decisions such as employment, housing, jury selection, and immigration) that accepting "statistical-based" forms of discrimination based on analysis of factually accurate personal information might be preferable to "animus-based" discrimination against racial minorities.[138] Placing a "curtain" over personal information may lead decision-makers "back towards the old sorting standbys – race, gender, and age"[139]

Strahilevitz stresses that price discrimination based on statistical analysis can have positive effects:

> "The effects of price discrimination, unlike the effects of racial discrimination, are ambiguous…
>
> …Moreover, even the distributional consequences of price discrimination are indeterminate. While price discrimination necessarily shifts surplus away from consumers, it also enables poor consumers who would otherwise be unable to afford a product the opportunity to obtain it (at a reduced price.) For that reason, price discrimination often entails a progressive redistribution of resources."[140] [citations omitted]

Strahilevitz doesn't advocate allowing free use of personal information in marketing, but urges a considering the risks and benefits of price discrimination in setting information policies.[141]

Another approach to social injustice is the adoption of specific antidiscrimination laws. Matthew Edwards argues that adopting anti-discrimination rules that combat "invidious forms of discrimination", such as those based on race, gender, age, or disability is preferable to strict price equality. For Edwards, the reasons for adopting information rules that protecting certain classes are entirely separate from efficiency concerns, and may conflict with them.[142] Similarly, Tal Zarsky states that the problem of discrimination based on bigotry should be categorically prohibited as a public policy, but he does not otherwise address the effects of price discrimination on defined groups.[143] These positions seem unsatisfying. The sorting of "high value" and "low value" consumers can be done without regard to race, gender, age, etc. and still consistently

---

[138] Lior J. Strahilevitz, "Reputation nation: Law in an era of ubiquitous personal information." American Law & Economics Association Annual Meetings. bepress, 2008, 38-40.
[139] Id., 9.
[140] Id., 56-57.
[141] Id.
[142] Edwards, supra n___. 592-3.
[143] Zarsky, supra, n___ 53.

disadvantage identifiable classes of consumers. Adverse market treatment by retailers—whether in prices, service, or opportunities—adds a special sting to poverty, entailed in the acts of of judgment and selection. While unintentional, these judgments tend to align with forms of "invidious" or "animus-based" discrimination. The resulting divides offer good reasons for the socially conscious to add targeted and personalized pricing to the social justice agenda.

Even if one disagrees with the social justice argument, there may be other social harms from price discrimination. According to Joseph Turow, a major concern is that increased reliance on niche marketing will lead to a "new culture of suspicion and envy"[144] – suspicion of retailers and their motivations and manipulations, and envy between segments of society over who secretly gets which better deals. Studies mentioned above support the finding that price discrimination leads all consumers distrust retailers, even if they continue shopping with them.[145] The marketplace as a whole becomes a venue where social tensions and power imbalances are acutely felt by all participants, hurting everyone.

g. "It punishes savvy shoppers"

"In the pursuit of fabulous, the savvy always win!" proclaimed a recent advertising campaign by discount clothing chain Marshalls.[146] In the retail context, there is a powerful notion that a savvy shopper can expect to find the best deals, and finding a good item for a good price feels like a small victory. The expectation that shoppers should make an effort to find deals also explains why low search cost (i.e., willingness to expend time and effort in search of a deal) is sometimes conflated with high price-sensitivity (i.e., the unwillingness to pay a lot), a notion that is not always true.[147] Yet, as will be described below, some pricing strategies actively try to undermine savvy shopping and "outsmart" diligent comparison shoppers. The argument that price discrimination might 'punish' savvy shoppers may be presented as follows:

---

[144] Turow, supra n___, 182.
[145] See Spiekermann, supra n___, 6, Turow, Feldman and Melzer, supra n__ , 30-32. Demos, supra n___. 55-6.
[146] See: http://youtu.be/YagzF4nSuu8, http://youtu.be/vkUvBnFlCLM
[147] I accept that the rewarding savvy shoppers is a powerful market norm, even though the correlation between search cost and price sensitivity is not always true, as I point out above, note ___.

"Shoppers are encouraged to be savvy by comparing prices and researching options".

"Some techniques for price discrimination undermine savvy shopping".

"It is wrong for price discrimination practices to 'punish' savvy shoppers. The best deals and options should be available to those who makes an effort to look for them".

In earlier days, the internet was thought of as holding a special promise of precipitously lowering market search costs.[148] Now this may no longer be true.

Clearly, no retailer wants to antagonize its clients. But firms are not always willing to relinquish control over their pricing and marketing strategies either, and may adopt marketing strategies that make comparison shopping more difficult.

One way new pricing strategies undermine savvy shopping is by making price-comparison tools less effective. Writing in 2001, Kannan and Kopalle expressed concern that the increase in dynamic pricing, including price-matching and targeted coupons, would ultimately frustrate comparison shopping bots, who would be unable to reach the lowest prices (which are non-posted), and would erode their performance and ultimately the public's reliance on such sites. [149] In 12-year hindsight, this prediction has been partially vindicated. Online retailers continually experiment with pricing models, and adopt measures that make dynamic shifts in price less obvious. For example, online stores advertise special deals through internal ads on their website beyond the marked price. This has the effect of making shopping online for the best deals by using comparison shopping tools more difficult, since comparison sites do not list selectively-offered targeted discounts.[150]

More generally, the increased used of dynamic pricing and personalized and targeted pricing can hamper consumers' ability to hunt for bargains or obtain reliable information about best prices. Kannan and Kopalle posited that dynamic pricing will generally have a negative effect on consumer trust in vendors, especially in categories of

---

[148] Kannan and Kopalle, supra n.___ 70-71, Odlyzko, supra n.___, 2-5.

[149] Kannan and Kopalle, Id.

[150] Anne Lowrey, "How Online Retailers Stay a Step Ahead of Comparison Shoppers" The Washington Post, December 11, 2010; See also Odlyzko, supra n.___, 2-3.

products with repeated purchases and among less price-sensitive and more loyal shoppers.[151]

The more complex and opaque pricing becomes, the more difficult becomes the task of even the savvies shopper to get good deals. "When firms Super Crunch on quality, they tend to help consumers. However, when firms Super Crunch on prices, hold on to your wallet" warns Ian Ayres.[152] When prices become individualized to the consumer, they should not assume they are getting a good deal. Rather, individualized pricing makes the process of finding deals more opaque to consumers. "In a world of Super Crunching, it's going to be a lot harder to rely on other consumers to keep your price in line. The fact that price-conscious buyers patronize a store is no longer an indication that it will be a good place for you, too". Although some pricing strategies make comparison shopping more difficult, Ayres points out that technologies that allow firms to target consumers with higher prices could be adapted to allow consumers to compare prices online more efficiently: "Consumers are going to have to engage in a kind of number crunching of their own… This is a daunting prospect for people … who are commercially lethargic by nature."[153]

This is especially true when a seller defines its "high-value" shopper as that with the least price-sensitivity and highest taste for its brand, as the economic models predict.[154] When this is true, firms often have little incentive to tempt the price-sensitive and ambivalent shoppers with special discounts, making their task of finding deals even harder.

As an example of the current confusion, consider the conflicting advice given by sophisticated consumer columnists: One newspaper suggests never to leave items in the online shopping cart, citing observations from the Barns and Noble and Macy's websites that items left in the shopping cart went up in price after a few days.[155] Another newspaper offered the exact opposite advice: "Leave items in a shopping cart for a few days to gin up discount offers", it suggests.[156] With the "experts" stumped, how is a savvy shopper supposed to know which advice to follow?

---

151 Kannan and Kopalle, supra n.___ 70-71.
152 Ian Ayres, Super Crunchers: Why Thinking by the Numbers is the New Way To Be Smart (2008) 173.
153 Id.
154 See above, at p. ___.
155 Lucy Soto, "Cookies Bite Back; These Little Computer Crumbs Keep Track of Your Spending Habits" The Atlanta Journal-Constitution, January 31, 2010.
156 Lowrey, Supra note ___.

A few conceivable objections should be raised: First, it is not clear whether these practices actually prevent savvy consumers from finding good prices, and the evidence is highly anecdotal and inconclusive. Secondly, consumer dissatisfaction invariably reflects bad marketing, and the market ought to correct this by marketing innovations that appeal to shoppers. Finally, market freedom ought to allow sellers control over their marketing strategies. I mention these objections in order to put the savvy shopper argument in proportion. It may not be the biggest or most acute problem with price discrimination. However, the bitter frustration of diligent shoppers still deserves some attention. The frustration of savvy shoppers is related to the unfairness argument, and if taken to an extreme, may be deceptive, as discussed above.

New York Times columnist Virginia Heffernan, commenting on the confusing and possibly discriminatory pricing policies of Amazon Prime, eloquently summed up the argument:

> "We online shoppers take pride in being shrewd… Conducting research into the top-ranked thing for best price has become the whole shopping game. When a purchase arrives, it can seem like an afterthought, a prize for being such an astute scholar of prices, such a conscientious, close reader of reviews…
>
> …But there may be good reason to check my self-satisfaction over it. On the Web, often when we think we're at our most savvy – conducting research, comparison shopping, deal getting – we're engaged not in strategic critical thinking but in an infotainment ritual akin to watching commercial TV. At best, trying to beat the Web may make us spend a little more; at worst, it may deepen our involvement with a game that's rigged against us."[157]

h. "It does not reward true loyalty"

Another unique value in the retail context is that customer loyalty to a vendor is a virtue. Today's proponents of direct marketing and CRM claim that their technologies allow them to reproduce the kind of personal relationship and loyalty that customers

[157] Virginia Heffernan, "Amazon's Prime Suspect" The New York Times, August 6, 2010.

enjoy with known and trusted storekeepers in the traditional market setting.[158] Yet so-called "loyalty programs" and "loyalty cards" have come under growing criticism. The common thread of the various attacks against loyalty cards is that they do not reward loyalty in the true sense of the word. The arguments that "loyalty programs and especially loyalty cards do not reward true loyalty may be presented as follows:

> **"Loyalty in the market is a virtue and a sign of trust that deserves to be rewarded"; however -**
> **"Loyalty cards lead to higher prices, including to loyal shoppers", and/or -**
> **"Giving discounts to some loyal (high-end) customers is unfair to other (low-end) loyal shoppers", and/or -**
> **"Loyalty cards coerce loyalty, rather than earn it".**
>
> ---
>
> **"Supermarket 'loyalty cards' do not reward true loyalty".**

There is a special sense of betrayal when loyal customers find out they pay more than new ones. William Fisher remarked that some of the harshest complaints that price discrimination is unfair were voiced when firms appeared to 'punish' loyal customers. For example, Amazon's pricing experiment especially enraged its repeat customers, and Microsoft customers were incensed when it charged existing customers more than new customers to upgrade MS Word.[159]

To understand how supermarket "loyalty cards" differ from true loyalty, it is worth considering how true loyalty emerges in the marketplace. Empirical research conducted by Alan Kirman and Nicolaas Vriend in the Marseille fish market shows how loyalty relationships can emerge under conditions that resemble the ideal of a perfect market, characterized by price dispersions, no real search costs, no switching costs, and no product differentiation. Under these conditions, buyers and sellers learn to create stable relationships that benefit both through a co-evolutionary learning process.[160]

This ideal picture of loyalty built gradually by mutual trust is very different from the false loyalty created by store cards.

---

[158] Gregory E. Smith and Michael S. Rimler, "Will You be Mined? Ethical Considerations of Opt-in Loyalty Programs and Price Discrimination", Issues in Information Systems, Volume X, No. 2 (2009), 204.
[159] Fisher, Supra n. __ 30.
[160] Alan P. Kirman and Nicolaas J. Vriend. "Evolving market structure: An ACE model of price dispersion and loyalty." Journal of Economic Dynamics and Control 25.3 (2001): 459-502.

One complaint against loyalty cards is that they raise prices to consumers. A decade or so ago, a group calling itself "Consumers Against Supermarket Privacy Invasion and Numbering" (CASPIAN)[161] embarked on an online campaign against the supermarket loyalty card programs. The group cited evidence that loyalty card schemes lead to higher prices overall, and did not result in meaningful savings for loyal customers.

Economist Einer Elhauge argues that loyalty discounts – situations in which the seller offers a charge a lower price to loyal buyers than it charges free purchasers – can create anticompetitive effects. This happens by reducing the incentives of firms to compete for free (non-participating) buyers, thus exposing them to potentially higher prices from the competition. These effects can be caused without affecting rival efficiency, and occur even without full commitment on the part of the buyers.[162] In certain situations, loyalty discounts raise prices above the levels they would otherwise be if not for the discounts. Thus, the term "loyalty discount", is misleading, since it does not represent a true discount, but merely the difference between the price offered to loyal and free customers.[163]

Another complaint against loyalty cards is that they allow stores to segments and prefer some groups of shoppers to others, even among their loyal shoppers. Through the shopper data they collect, stores are able to tailor discounts and deals to their highest-value customers, to the detriment of the rest.[164] The argument is similar to the social justice argument, but has some unique nuances: Supermarket loyalty cards is often involve selective discounts and special offers to the highest-value customer that are unavailable to other low-value shoppers, even loyal ones. Thus, information gathered from all shoppers is used to favor a select few. Amanda Conley and Laura Moy criticize the practice of supermarkets loyalty cards as essentially "paying the wealthy for being wealthy".[165] They describe how the practice of offering special discounts on certain high-end products uses data mining of shopper purchase habits in order to garner the loyalty of wealthier customers. At the same time, stores raise prices on the staple goods that are preferred by the low value customer. This, in their view, amounts to a subsidizing of the

---

[161] See: John Vanderlippe "Supermarket Cards: An Overview of the Pricing Issues", CASPIAN, available at: www.nocards.org/overview/index.shtml (accessed 4/11/13).
[162] Einer Elhauge, "How Loyalty Discounts Can Perversely Discourage Discounting", J. of Competition L. & Econ. 5(2), 189-231.
[163] Elhauge, Id. 216-221.
[164] Vanderlippe, supra n___.
[165] Amanda Conley and Laura Moy, "Paying the Wealthy for Being Wealthy: Why We Should Care About Information Privacy Even if We Have 'Nothing to Hide'". Unpublished, circulated among participants of the Privacy Research Group at NYU, 2011.

wealthy by the poor. The cumulative effects of adverse selection on the disadvantaged, while unintentional, tie between loyalty and the social injustice.

The effects can sometimes go the other way too. Omer Tene qualifies Conley's and Moy's argument by pointing out that in some cases, the customer segmentation can work against the wealthy, by subtly manipulating them to spend more. As an example, he cites the case of Orbitz, which steered some users to more expensive hotels based on their choice of operating system.[166]

A third complaint against supermarket loyalty cards, raised by CASPIAN, is that they are increasingly forced on shoppers who have fewer and fewer other shopping options, especially those shoppers who rely on public transportation.[167] If so, the poor can't avoid the adverse consequence that loyalty programs impose on them. It also suggests that the term loyalty is misapplied to programs that are really marketing ploys that take commercial advantage of consumers.

In conclusion, store loyalty plans have little to do with loyalty in the ordinary meaning of the word. Loyalty plans raise concerns over consumer welfare, fairness, and social justice as discussed above, but are accompanied with a special indignation when it appears that true loyalty by customers is not properly rewarded.

i. "It increases insecurity and erosion of privacy"

Consumer Security and confidence are crucial for the participation in the market. An indirect argument against price-discrimination is that it contributes to the growing glut by companies to obtain for consumer information. The massive gathering of information, in turn, erodes individual privacy and creates vast caches of consumer data that are targets for identity thieves and fraudsters. This concern provides a good argument against price discrimination, regardless of the other arguments against the practice. The insecurity and eroded privacy argument may be presented as follows:

---

[166] Omer Tene, "Privacy: For the Rich or for the Poor?" Concurring Opinions, July 26 2012. See also Mikianis et al., supra p. ____, whose empirical research disputes that claim that discrimination based on operating system is taking place.

[167] CASPIAN FAQ website: http://www.nocards.org/faq/faq_01-5.shtml and http://www.nocards.org/faq/faq_07.shtml (accessed 4/19/13).

"Security is threatened and privacy is eroded by the growing accumulation of personal data in the hands commercial firms".

"The accumulation of personal data is driven by firm's desire to price-discriminate".

"Price discrimination increases insecurity and erodes privacy".

The presence of vast stores of consumer data in the hands of private firms has been compared with water reservoirs[168] and oil tankers,[169] which, if allowed to leak, can cause massive harm. This is true especially of identifying information, but to other personal data held by corporations as well.[170] Personal information in the hands of corporations also poses serious risk of eroded privacy and the myriad ways that such data can be used and abused.[171] The problems of information insecurity and the erosion of privacy go well beyond the scope of this paper. What is important to us is the relation of these phenomena to firms' motivation to price-discriminate.

Andrew Odlyzko has argued that "the powerful movement to reduce privacy that is coming from the private sector is motivated by the incentives to price discriminate, to charge different prices to various customers for the same goods or services… [T]he incentives to price discriminate and the increasing ability to do so are among the key factors in the evolution of the economy."[172] Using economic reasoning and the example of the highly-discriminating 19th century railroad prices, Odlyzko regards the price-discrimination as the motivation behind the adoption of information practices that enable firms to differentiate their prices among consumers, and predicts that firm will increasingly adopt new strategies that allow them to do so in subtle ways without incurring the ire of consumers.[173]

If Odlyzko's argument is true, should we adopt measures that limit the ability to price-discriminate, thereby reducing the need to gather consumer information? It is

---

[168] Danielle K. Citron, "Reservoirs of Danger: The Evolution of Public and Private Law at the Dawn of the Information Age" 80 S. Cal. L. Rev. 241, 2006-2007.
[169] Sarah J. Hughes: "Payment Data Security Breaches and Oil Spills: What Lessons Can Payments Security Learn from the Laws Governing Remediation of the Exxon Valdez, Deepwater Horizon, and Other Oil Spills?" 5 Brook. J. Corp. Fin. & Com. L. 111, 2010-2011.
[170] See also Andrea M. Matwyshyn, "Material Vulnerabilities: Data Privacy, Corporate Information Security, and Securities Regulation", bepress Legal Series, 2005.
[171] The impact of between commercial data gathering has permeated the debate over privacy almost since its beginning. A few examples of writing suffice: Richard A. Posner, "The Right to Privacy" 12 Ga. L. Rev. 393 1977-1978; MacCarthy, supra n.___. Find other citations.
[172] Odlyzko, supra n. ___, 2-3.
[173] Odlyzko, Supra n___, 9-16.

important to note that this argument reverses the rationales against allowing price-discrimination strategies discussed so for: instead of resisting new information practices because of the harms of price discrimination, this argument would have us resist price discrimination in order to avoid harmful information practices.

A few objections can be raised. Firstly, It is doubtful whether price-discrimination is the dominant motivation for consumer information collection. The rise in targeted advertising, new payment methods, credit assessment, and CRM practices are all equally plausible motivations. Secondly, this argument forces a false choice. Technologies can be developed to protect privacy and security while still allowing commercial use of personal information.

In conclusion, the argument that price discrimination is to blame for the growing information insecurity and erosion of privacy is only partially persuasive. However, it is worth mentioning, if only to remind us that there is more at stakes than the direct harms from price-discrimination that we discussed.

j. Conclusion

In this paper, I wanted to put order into the conflation of arguments that have been leveled against (and in favor of) the use of consumer information for facilitating price-discrimination practices. Some of those arguments fail to recognize the differences between different kinds of price-discrimination, and especially the various ways they use consumer information and the reasons why they do so. In doing so, I distinguish among different normative arguments that apply under different circumstances to some, but not all, discriminatory pricing practices. If economic evidence and moral reasoning are to inform policy, I believe that such distinctions are necessary.

Some discussions of the use of consumer information for the purpose of price discrimination take the standpoint that price discrimination is presumptively welfare enhancing and desirable overall and ought to be allowed. Legal restrictions on price-discrimination should only be adopted judiciously in limited circumstances to avoid clear

harms to competition, egregious violations of privacy, or particularly invidious or socially unacceptable forms of discrimination.[174]

I take a different position. Price discrimination cannot be presumed to be good or bad in itself.[175] Rather, the power to price discriminate is interwoven into every facet of market life. It appears around every corner, in every action that firms take to market their products. Concern for consumers' welfare, fairness, trust, and ability to make rational choices is not inimical to market liberty but informs the core of what a free market is about. Price differences among consumers can be part of a properly functioning market, but all too often it is can be a warning signal that something in the balance of power between firms and consumers is dysfunctional. Perpetual vigilance for these signs should inform the rules we take with respect to the supply of information to consumers and their right to withhold certain information from sellers.

[174] This line of argumentation, in various forms can be seen, e.g., in: Edwards, supra n___, 586-95.; Kochelek, supra n___, 520-3, 535. ; Odlyzko,

[175] A similar view is taken by Fisher, supra n___, 20-28.