Differential Pricing and Privacy: Good, Bad, or Otherwise?

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The vast and ever increasing collection of information about consumers by search engines, advertisers, data brokers, web merchants, and myriad other online and offline companies raises many concerns. A website that stores (and reads) your emails, records every search you make, knows what addresses you look for on its maps, and holds your documents may know more about you than any other single institution, perhaps even including your family members.

Imagine if your email provider reads your email – or some other data accumulator reads your tweets or social network page – and tells the airlines that you are going to a family funeral across the country. Suddenly, you only find that airlines only offer you seats at a very high price. Think that you can hide your identity by searching before you sign in to buy? Doubtful. Web trackers likely know who you are using IP addresses, cookies, or other tricks invisible to most users.

One of the concerns about this data collection is differential or discriminatory pricing. Consumer advocates and others worry that merchants will use personal information to determine how much each individual consumer is willing to pay for something. That consumer then receives an individual price based on that consumer's interest, need, income, buying patterns, and other factors. The next consumer pays a different price.

What's the matter when a merchant charges one consumer a different price than another consumer? This is a surprisingly complicated question to answer.

Economists call the gap between what consumers are willing to pay and the market price the *consumer surplus*. If consumers lived in the economist's hypothetical world of many buyers, many sellers, and a fair and transparent marketplace, consumers would expect to find prices based on marginal cost of production with lots of consumer surplus. Differential pricing is a merchant's dream, with each customer paying a price based on willingness to pay rather than a standard price. Differential pricing could end the consumer surplus.

In the offline world, a merchant typically sets a single price for all consumers. The book is $12.99 to anyone who wants to buy it in the book store. Gasoline is $3.25 a gallon no matter how low a car's gas tank is or how much the car cost.

In reality, things aren't that simple in the offline world. The bookstore offers consumers a frequent shopper card (sometimes free. sometimes paid) with a discount on all purchases. The consumer with the card pays less than a consumer without one. The gas station offers a discount on Tuesdays because that's a slow day. The movie theatre offers lower prices early in the day and higher prices in prime time. Many sellers offer a discount to seniors.

We're not done with routine and familiar differential pricing strategies. One car dealer advertises a discount to anyone in a military uniform. Another offers a discount to a first-time car buyer. Another dealer gives a discount to a returning buyer. The office supply store rewards those who buy bigger quantities. Buy three reams of paper and get a fourth one free. Grocery stores in affluent neighborhoods may charge lower prices than a branch of the same store in a low income neighborhood where consumers don't have transportation to shop elsewhere.

Wait, there's more. Some consumers negotiate better prices than others. Many brick and mortar stores (phone and cable companies too) now bargain with consumers and sell at a price lower than the standard asking price. Those who are more adept at bargaining pay less. Some websites do the same thing. If the site can figure out that you are abandoning your shopping cart or that you did on a previous visit, it might offer a discount before you leave.

Although less well known, merchants have other techniques to distinguish between consumers. Coke might offer a dollar-off coupon to known Pepsi drinkers to induce them to switch. Known Coke drinkers only receive a twenty-cent coupon because they need less of an incentive.

I feel reasonably confident in saying that most of these differential pricing methods do not offend most consumers. Some may take issue here and there. Personally, I don't like the *privacy* consequences of frequent shopper cards at supermarkets. Further, few are aware that supermarkets actually make money from frequent shopper cards because the stores can charge higher prices to those without a card. Transients, busy people, non-English speakers, and the ignorant pay the regular and not the sale price. In the old days, everyone paid the sale price for items on sale. Now, consumers as a group pay more for groceries because only those with a card benefit from the lower price. In the end, I fight back a little by using frequent shopping cards that can't be readily associated with me.

Differential pricing online can happen in new and sneaky ways. Here are some hypothetical examples. Alice, tagged by her past shopping history as an impulse buyer, sees a widget priced at $10.00. Bob, known to be frugal and a careful shopper, sees the same widget from the same website priced at $8.00. The merchant who knows that Carol has been shopping for weeks all over the Net for a widget offers it to her at $7.50.

Some reports about differential merchant behaviors have appeared. One partial example comes from the Orbitz travel website. Orbitz found that Mac computer users spent more on hotels so it showed them more expensive options than it showed to Windows users. http://online.wsj.com/news/articles/SB10001424052702304458604577488822667325882.

That's not quite full-fledged differential pricing, but it's toward that end of the field. We already know that some search engines guess at what interests you the most and then show you only what they think you want. If the search engine thinks you are a Tea Party adherent, you might only see news from that side of the spectrum.

When a search engine shows you only high-priced goods, it's not necessarily showing you what you want but perhaps what some merchant wants you to see. Can we expect Big Brother to abandon politics for the commercial marketplace?

In a world of differential pricing, shoppers may need a Miranda warning: all the details of your life that have been collected, compiled, and analyzed may be used to raise the price of your online purchases. You have the right not to buy, but you may not have the ability to know that you have been targeted to pay more or that you have been prevented from finding lower prices elsewhere. To put it another way, what Google knows about you can and will be used against you in the economic marketplace.

This subject gets even harder. Some differential pricing may reflect the cost of serving different classes of customers. When differential pricing has an economic justification, it seems more acceptable than if each consumer gets a *what the traffic will bear* price based on personal characteristics and past activities.

One of the clearest differences between the acceptable and the not-so-acceptable is that for the most part, acceptable differential pricing methods are transparent. You know that the movie charges less at matinees. You can choose to come early, you can take your business elsewhere, or you can pay for prime time. You can wait until you are 65 to benefit from discounts.

It's hidden price discrimination that is more troublesome. Who wouldn't feel cheated somehow knowing that the user at the next computer bought the same product from the same merchant at the same time and paid less? One answer, then, is more transparency.

Yet if more transparency means another sentence in a website's obscure and unread terms of service, I will pass on that. It will help no one. Transparency has to mean more than that. One partial clue, however, comes from department stores that show sale items and say that there were intermediate markdowns. That tells consumers that the 75% off list price may not be the big bargain that it appears to be on the surface. I'm not sure how to apply that notion to differential pricing, but there's an idea there somewhere.

Another significant concern is that differential pricing may hide invidious discrimination. A car dealer who said that minorities will be charged more would violate the law and would be found guilty in the court of public opinion as well. Indeed, Ally Financial just got caught charging black, Hispanic and Asian American customers more for car loans. http://www.washingtonpost.com/business/economy/auto-lending-giant-ally-financial-pays-98-million-to-settle-bias-charge/2013/12/20/60d90d48-69a9-11e3-ae56-22de072140a2_story.html.

The Consumer Financial Protection Bureau that brought the Ally case looked at car buying as a major transaction. Who would or could investigate discriminatory pricing of a ten dollar shirt? That's an open question for now.

On the web, no one knows what data and what algorithms determine the price that you see. Online merchants might be harder to hold accountable. Most could hide behind their algorithms, arguing that they are *proprietary information*. That may be fair, but only up to a point.

There's another side to the story. Consumers aren't helpless here. They can and do compare prices using the Web, and they can share that information with the world. If consumers learn there are two prices, few will agree to pay the higher price.

Consumer websites share information about prices and pricing strategies. My colleague Edgar Dworsky runs the Consumer World website (http://www.consumerworld.org/) with tons of useful consumer information, including advice on when to buy what products and a price checker service so you can find when the price drops on that product on your wish list. Consumer-facing websites also share information about coupons that lower the price. I rarely shop on the web without looking for coupons. Of course, I don't know if my access to coupon information is being restricted somehow by websites on the take from merchants or by otherwise untrustworthy search engines.

Conclusions? I think that differential pricing isn't a black or white issue. The secret collection and use of consumer information is part of the problem, and some level of transparency is essential if there are different prices for different consumers. Maybe more policing and more auditing by regulators, industry, and consumers is part of the answer too. I don't know if the ability of consumers to share merchant information via the web is a sufficient counterbalance to secret price discrimination, but it seems relevant. Certainly, online reviews of products are extremely valuable and help consumers battle manufacturers who sell lousy products.

I worry, however, that the search engine may hide price comparison sites from consumers considering purchases. Or merchants will create false websites to provide misleading information about pricing. A few years ago, Best Buy did just that, when it ran secret websites visible only in stores that were used to convince shoppers they were getting a bargain when they weren't. http://consumerist.com/2007/03/19/update-best-buy-still-using-its-secret-website/.

In the end, it's fine that there should be a battle between merchants and consumers over prices. One wants a high price and one a low price, but both want to complete a transaction and so have a common incentive to find a fair price. If use of personal data supports unacceptable differential pricing and tilts the outcome toward merchants and away from consumers, then consumers will need help.

The companies collecting tons of personal data in the hopes of raising click through rates for online ads from one tenth of one percent to two tenths of one percent are looking for other ways to profit from the data. Maybe differential pricing is the next frontier. I don't know if it is time to act because we just don't know what is happening out there in the online trenches. That may be the scariest element of differential pricing. It could already be happening, and consumers might be wholly unaware.