

Online Targeting of Advertising and Prices

A market study

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1 EXECUTIVE SUMMARY

- 1.1 In September 2009 over 14 million households in the UK used the internet to find out about goods or services. Between 2003 and 2008 the percentage of advertising revenue generated online grew from three percent to 20 percent. Advertising online has a different, and more complicated, nature than traditional advertising. The internet allows detailed information to be collected about consumers and for the advertising shown to vary according to consumer viewing it. This increases the scope for behaviourally targeted advertising. The benefits this may bring to consumers and the concerns it gives rise to have been the subject of much debate. Fears about the potential for targeted pricing to become widespread in the future have also been voiced. Such concerns have the potential to undermine trust in the online market place and so hinder its development.
- 1.2 Through research, we have explored the concerns of consumers and asked them whether these concerns are likely to restrict their use of online services. We have looked at the technologies that are being developed, how they are being deployed at present and how they might be deployed in the future. Mindful of both the benefits and possible harm to consumers, we have evaluated existing regulation, including how existing consumer protection legislation could apply, and the emerging self-regulation. We have considered whether the protection afforded by these means is adequate to address consumer concerns.
- 1.3 This document sets out our current views. We recognise, however, that this area is still evolving, with several important developments taking place even during the time it took to complete this short study. For this reason we do not think it appropriate to form definitive views now. Rather, we invite further debate on these issues and propose to update our thoughts in line with these comments and market developments. We intend to hold a roundtable event to discuss this report in June 2010, and commit to revisiting these matters as needed.

Online Targeting of Advertising

- 1.4 The annual UK revenue from behavioural advertising is between £64m and £95m. At present, this represents just a fraction of the total online advertising industry but the increased effectiveness of behavioural advertising suggests it looks set to account for a much larger share in the near future. The wider online advertising industry itself is growing at impressive speed. The internet has taken little more than a decade to become the largest sector of the advertising market in the UK and was worth over £3.35bn in 2008.
- 1.5 Most behavioural advertising works on the basis of small 'cookie' files which are placed on a consumers' computer and used to track the pages a user visits on the site or on sites which are members of the same advertising network. Users are profiled on the basis of this browsing behaviour and adverts are targeted according to their likely interests. An alternative method of targeting advertising is based on 'deep packet inspection' techniques which collect information at the internet service provider level. This was trialled in the UK but is not in use at the moment.
- 1.6 Behavioural advertising has benefits to consumers. Improving the targeting of advertising decreases suppliers' advertising costs and increases revenues for web-publishers. This increased efficiency feeds through to reduced costs for consumers for example by enabling free access to content. Consumers are also less likely to receive adverts that are not of interest to them.
- 1.7 On the other hand, a number of objections to behavioural advertising have been raised. These are centred on privacy issues, concerns about the possibility for misuse of the browsing data collected and fears that behavioural advertising might result in inappropriate or embarrassing advertising being shown.
- 1.8 As the practices have evolved so too have solutions to the concerns. Market based tools are being developed that allow consumers who are aware of, and concerned by, the collection of information to have greater control. Manufacturers of web browsers are improving functions that allow consumers to block cookies and some browsers have recently added a 'private browsing' mode. Other software

solutions which allow internet users to block tracking devices, and even adverts altogether, can also be purchased.

- 1.9 In a few cases, firms themselves have taken steps to increase transparency and consumer control over behavioural advertising, and, in March 2009, the Internet Advertising Bureau (IAB) introduced self-regulatory principles supported by the leading market players. These state that members must tell consumers how browsing information will be collected, usually in the privacy policy of the web publisher, and must allow consumers to opt-out if they wish.
- 1.10 The Information Commissioner's Office (ICO) has regulatory powers in this area. Under the Privacy Regulations, it is a legal requirement for firms to inform consumers when a tracking system collects information about them and to give them the opportunity to refuse their continued use. The exact form that the information and consent takes varies according to the situation. In some cases, it is acceptable to put the information in a privacy policy and allow consumers to opt-out but in others, such as behavioural advertising based on deep packet inspection techniques, this is not sufficient. The ICO also enforces the Data Protection Act (DPA) which provides for the regulation of the collection and use of personal data and in a recent consultation the ICO proposed that information about browsing behaviour should generally be treated as though it were personal data. This means that firms would have to inform consumers about such data collection, keep the data secure and must only use it in a way that is fair to consumers.
- 1.11 In addition to the powers of the ICO, the OFT considers that Consumer Protection from Unfair Trading Regulations (CPRs) do apply in this area. The CPRs may be breached if a consumer alters a transactional decision as a result of misinformation or lack of information. The OFT interprets transactional decision widely and believes it encompasses, for example, the decision to view a website. So it is possible that not informing a consumer about the collection of information about their browsing behaviour could breach the CPRs if that knowledge would have altered their behaviour, perhaps by dissuading them from visiting that website or buying a product from a website.

- 1.12 Our consumer research investigated the extent of concerns about behavioural advertising. We found that attitudes to online targeted advertising are mixed with 40 per cent of consumers holding neutral views, 28 per cent disliking it and 24 per cent welcoming it. Concerns decreased when consumers were able to opt-out of behavioural advertising, and the associated tracking, if they wished. Around 40 per cent of consumers said they would take some actions to prevent behavioural advertising (such as deleting cookies), although only a very small minority would reduce their internet usage to avoid it. Around 60 per cent would not alter their behaviour at all.
- 1.13 Based on our work and the results of the consumer research, we believe that it is proportionate to focus on improving and supporting self-regulation. The IAB's Principles do appear to go some way to addressing consumer concerns, although they are barely a year old and still evolving - during the course of this study, they have been strengthened by the introduction of a policy statement which states that their members do not use 'flash cookies', which cannot be deleted by browsers, for behavioural advertising. We have also identified a number of further areas for improvement to the Principles.

Recommendations for self-regulation

- **Increase transparency to consumers by developing 'clear ad' notices alongside behavioural adverts including information about opting out**
- **IAB to give further consideration and provide clearer guidelines around sensitive information and the use of that data for behavioural advertising.**
- **Increase awareness of the Good Practice Principles amongst publishers and advertisers seeking to engage in behavioural advertising**
- **Consider extending coverage of first party behavioural advertisers and whether retargeting companies and social networking sites should be included**
- **Consider whether the Good Practice Principles should include a commitment to maximum length of data storage for the purpose of behavioural advertising**
- **Include non-industry, independent stakeholders in the**

1.14 In addition, the OFT will establish a Memorandum of Understanding with the ICO establishing in which circumstances each party would act. This will increase effectiveness of enforcement which is an important fall-back if self-regulation were to fail or if there were concerns about practices which fell outside its scope.

Online Targeting of Prices

1.15 Online price targeting could happen in a number of different ways. Our main focus has been on targeting based on previous online purchases or browsing behaviour. This could result in consumers being offered vouchers or discounts or targeted with adverts containing special offers. It has also been suggested consumers that are tracked may be shown increased prices or a restricted product

range. The targeting could take subtle forms for example, offering new customers reduced prices but retracting those offers from consumers who are identified as having already visited, and/or purchased from, a site.

- 1.16 The OFT does not currently have any information about any firms increasing prices to consumers on the basis of their online behaviour at the moment. Of course, many sites offer tracked consumers discounts. For example, firms may track the purchases of consumers who are logged on to their websites and use that information to email discount offers.
- 1.17 We have considered the benefit and harm to consumers that could emerge if the use of targeted prices became widespread. It is a well-established economic principle that price discrimination has ambiguous effects on consumer welfare and the OFT typically presumes against restrictions on price discrimination. In the online environment, price targeting may be much less transparent which may mean that consumers do not shop around sufficiently or find it harder to compare prices. The use of online tracking also raises the same privacy objections as targeted advertising. Such practices have the potential to undermine consumers' trust in e-commerce, hindering the development of the sector.
- 1.18 If the ICO's current view prevails, information indicative of a person's web-browsing behaviour should be treated as personal information and consumers must be informed that information about them is being collected and used to support price targeting. The ICO's code suggests that the form that consent should take will depend on the nature of the practice. Our evidence suggests that consumers regard using data on previous online behaviour to target prices as unexpected and objectionable. We have encouraged the ICO to consider this and to intensify its efforts to ensure the fair collection of information for targeted prices, including formulating a clearer view of when consent is needed and when notice to individuals will suffice.
- 1.19 In addition, the OFT believes that the CPRs could also apply to such price targeting. If consumer opposition to such practices is strong, it is highly likely that the knowledge that they were being applied

would change behaviour. Pricing on the basis of browsing behaviour may therefore breach the CPRs if consumers are not clearly informed about the practice. We propose our Memorandum of Understanding with the ICO would clarify under which circumstances each would act if such practices were to be deployed.

- 1.20 The use of web-browsing behaviour is not the only way of targeting online prices. In our meetings with stakeholders, however, we were told that that if firms were to try to increase online prices to high willingness to pay consumers, it may be more likely that they would identify such consumers through their postcode which can be inferred from an IP address or entered by the consumer themselves.
- 1.21 If the targeting is based on the analysis of an individual's IP address in order to infer geographical location, then this would constitute the processing of personal data and be subject to the DPA. Targeting based on data entered by consumers would also be subject to the DPA and the CPRs.
- 1.22 Consumers' opposition to targeted prices may, in itself, prevent firms from undertaking such behaviour. The extent of online price targeting may also be inhibited by other means such as competition between firms for the targeted customers, intermediary firms which spot arbitrage opportunities or technological solutions which develop to allow consumers to avoid targeting.
- 1.23 Since online price targeting is a possibility but not yet a reality in the UK - except in the form of largely innocuous discount offers - this is an area where more debate and discussion seems likely to be particularly productive. It will therefore be a focus of our proposed June stakeholder event.

Thank you

- 1.24 During this study in addition to our consumer survey, we consulted widely with a broad range of stakeholders, including business engaged in behavioural advertising, key trade and professional organisations, consumer groups, privacy groups, Government, and other regulators including in particular the ICO and Ofcom. We are grateful for all of these contributions to our work.

2 INTRODUCTION

- 2.1 On 15 October 2009, the OFT launched a market study into online targeting of advertising and prices. This covered behavioural advertising, in which a computer user's online behaviour is used to target online advertising, and customised pricing, where prices are individually tailored using information collected about a consumer's internet use.
- 2.2 This study sets out our current views of these practices and provided views on the extent of the existing protection. We have structured our report in two parts as follows:

Part 1 – Evaluation of the Practices

- Chapter 3 of the study provides an overview of the online behavioural advertising market and the different technologies currently in use
- Chapter 4 examines the potential for targeting prices
- Chapter 5 discusses the consumer benefits and harms likely to result from online behavioural advertising and targeted prices.

Part 2 – Evaluation of Existing Consumer Protection

- In chapter 6 we look at how the market has responded to these concerns
- Chapter 7 looks at the effectiveness of the self-regulatory system and provides recommendations for how this might be improved
- Chapter 8 examines the current regulatory system in relation to online targeting of advertising and prices including, in particular, data protection regulations and the potential for consumer protection legislation to be applied in this area.

- We summarise our findings and preliminary recommendations in chapter 9.

2.3 During the course of the study we consulted widely with a broad range of stakeholders, including business engaged in behavioural advertising, key trade and professional organisations, consumer groups, privacy groups and Government, including the ICO and Ofcom. A full list of consultees and contributors can be found at Annexe A. We would like to thank all those that have contributed their views.

Part 1 – Evaluation of the Practices

3 ONLINE BEHAVIOURAL ADVERTISING

Summary

Online behavioural advertising, estimated to account for between £64m and £95, is a small but rapidly growing part of a wider online advertising industry that was worth £3.35bn in 2008. A number of players are involved in online behavioural advertising including online publishers, ad networks and data technology companies.

Online behavioural advertising can happen in a number of ways. Some companies base the targeting only on users' behaviour on their own website. This is known as first party advertising. Other online firms use third party ad networks that track users and deliver adverts over a number of websites which they partner with. Both techniques are based on small 'cookie' files which are dropped onto a computer allowing that computer to be identified when a person visits the site that installed the cookie or a site that is a member of the same ad network. 'Flash' cookies and web-bugs could also be used but these are much harder for users to manage.

Behavioural advertising can also be undertaken at the level of an internet service provider. This uses deep packet inspection techniques which examine all traffic on a user's computer. This has been trialled in the UK but is not currently in use.

Advertisers are likely to direct their attention and budgets more and more to behavioural advertising as a way of reaching the right audience and so increase the effectiveness of advertising. The scope and nature of these techniques is therefore likely to develop much further in future.

Market Size

- 3.1 Behavioural adverts are delivered using information collected from individuals' web browsing behaviour, for example news websites visited and topics viewed or search engine queries. This allows users to be classified in to segments, each containing thousands of IP addresses, such as golf enthusiasts, used car shoppers, winter travellers, pet lovers or young men interested in gadgets. Adverts

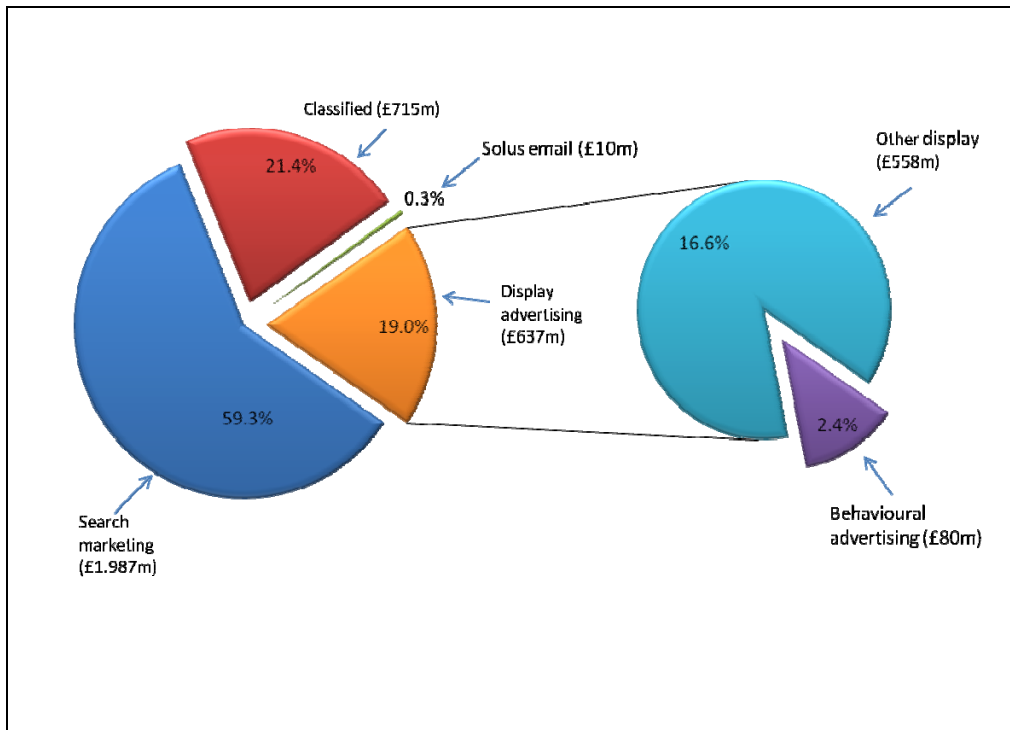
that are relevant to groups of users are then served, increasing the effectiveness of campaigns.

- 3.2 Online behavioural advertising is estimated to account for between £64m and £95m.¹ It is a small but rapidly growing part of a wider online advertising industry that was worth £3.35bn in 2008.²
- 3.3 The broader online advertising market can be categorised as search, classified and display advertising which encompasses behavioural advertising:
- Search advertising involves an advertiser paying for its website to be included in a search engine's results for a specified term and accounts for 60 per cent of internet advertising.
 - Classified advertising represents 21 per cent of the market and includes recruitment advertising, motor advertising and online directories of service providers.
 - Display advertising accounts for 19 per cent of the market and encompasses banner ads and pop-ups which are shown on a particular web page.
- 3.4 Behavioural advertising accounts for 10 to 15 percent of display advertising. Display advertising also includes other forms of targeted advertising such as contextual advertising or geo-targeting, as well as untargeted ads. Contextual advertising is based on an automated matching of keywords from the content a user is viewing with keywords for an advertisement. For instance, when viewing a sports review website, the user could be served with adverts for sporting events or sport merchandise advertising. Geo-targeted adverts are related to the country the user is in, or even the region, usually determined by their IP address. Contextual advertising is targeted but as no tracking is involved it raises significantly fewer issues and is not a focus of our work

¹ Internet Advertising Bureau (IAB)

² Key Note, Internet Advertising 2009

Graph 1: Distribution of UK online advertising expenditure by format (year ending December 2008)



Source: IAB/PricewaterHouse Coopers. IAB estimates that between 10 and 15 percent of expenditure on display advertising is accounted for by behavioural advertising. We have assumed 12.5 per cent for ease and simplicity.

- 3.5 A number of players are involved in online behavioural advertising. Online publishers sell much of their advertising space via intermediaries called ad networks which bring together websites that want to host advertisements with advertisers. Smaller publishers often sell their entire inventory of advertising space through ad networks but large publishers, such as newspapers sites, also sell space direct to advertisers or media buyers working on behalf of advertisers. In addition to selling advertising space, ad networks also help target adverts using a range of techniques, including behaviourally targeted adverts. Leading ad networks include Google's Double Click, Yahoo! Network, AOL Advertising and Scientific Media.
- 3.6 There are also a number of technology companies involved in behavioural advertising. These help web publishers and ad networks to capture users' data and interpret it. They build the profiles and

segments used for behavioural advertising. The leading technology company in the UK is AudienceScience.

- 3.7 Behavioural advertising has the potential to dramatically increase the effectiveness of advertising spend. It therefore seems very unlikely that its proportion of the wider advertising market will not grow. Rather, it looks set to develop into an extremely significant part of the online advertising industry. For example, there are several instances of major publishers creating their own groups to share online reader data for the purposes of behavioural advertising.³ AudienceScience itself has moved beyond being purely a provider of behavioural profiling technology to creating their own AudienceScience network to meet growing UK demand for behavioural advertising. Similarly, Google is looking to roll out its Interest-Category Advertising later in the year.⁴
- 3.8 The wider online advertising market is growing at impressive speed. It has taken the internet little more than a decade to become the largest sector of the advertising market in the UK.⁵ In the past year, while total advertising revenue decreased by nearly 17 per cent in the UK, internet advertising continued to increase with its revenue growing by nearly 5 per cent. All other advertising sectors declined.
- 3.9 Behavioural advertising is also likely to spread to other forms of media, such as TV and mobile phones. For example, Sky has announced plans to deliver targeted advertising in its Sky Player platform through SkyAdsmart and Project Canvas - a joint venture between BBC, BT, Channel 4, Five, ITV and Talk Talk - could allow for behavioural advertising.^{6 7} Similarly, Google is proposing to

³ See, for example, *New Media Age*, 7 January 2010. News Corporation and News International also launched their first joint behavioural targeting campaign in October 2009 aimed at targeting a particular audience across their online titles.

⁴ *New Media Age*, 1 April 2010

⁵ Key Note, *Internet Advertising 2009*

⁶ www.skymedia.co.uk/downloads/478/Sky%20AdSmart%20Final%20.doc

acquire AdMob, the mobile web advertiser, paving the way for behavioural advertising on mobiles.⁸

- 3.10 Offline and online marketing are also coming together as the new venture between Yahoo and Nectar shows, where online advertisers will be able to target shoppers based on their high street purchases.⁹
- 3.11 Overall, business models in this area are changing quickly. They increasingly rely on unprecedented collection of data from a wide range of sources, both on and offline. Behavioural advertising also looks set to be shown not only on the internet but also on mobile phones and television. The adverts themselves may well be personalised to degrees not possible a relatively short time ago. This trend is likely to continue and indeed accelerate in the short to medium term with possible implications for data protection, privacy and our use of technology.

First-party behavioural advertising

- 3.12 First-party behavioural advertising refers to the practice whereby a publisher profiles users on the basis of information about the user gathered from its own website(s) and not the websites of any third party. This profile is used to serve its own adverts or the adverts of third parties. The web publisher may use an agent to collect and profile the web browsing information. Examples of first party behavioural advertisers include news websites or online retailers such as Ebay or Amazon.
- 3.13 This works on the basis of cookies. These are small text files which are sent from a website's servers and placed on a user's browser when a user visits a website. In subsequent visits to that website, the particular cookie is identified and data stored about pages views,

⁷ www.projectcanvas.info/index.cfm/news/?mode=alias&alias=Canvas-Analysis-from-Morgan-Stanley

⁸ <http://techcrunch.com/2009/11/09/google-acquires-admob>

⁹ www.guardian.co.uk/media/pda/2010/feb/12/yahoo-ads-sainsburys-nectar

products bought etc. After a number of visits a profile is created and a targeted advert served based on that profile. Figure 3.2 below illustrates the way in which first party behavioural advertising works whilst Figure 3.3 shows an example of how this might look to a computer user.

Figure 3.2: First party behavioural advertising

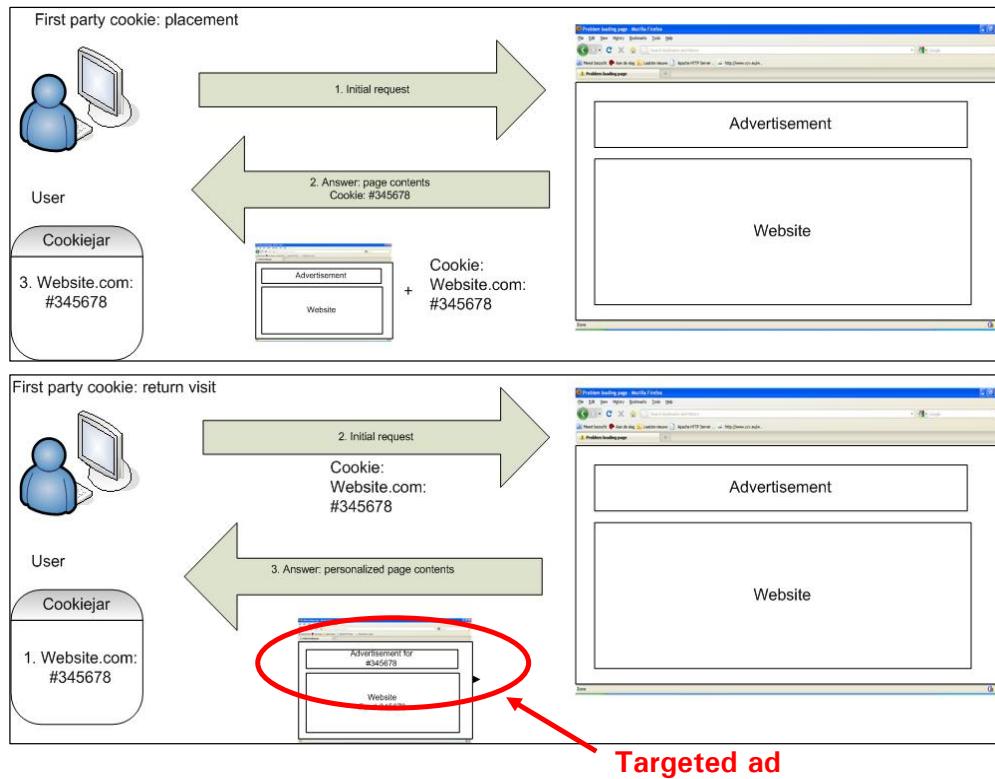
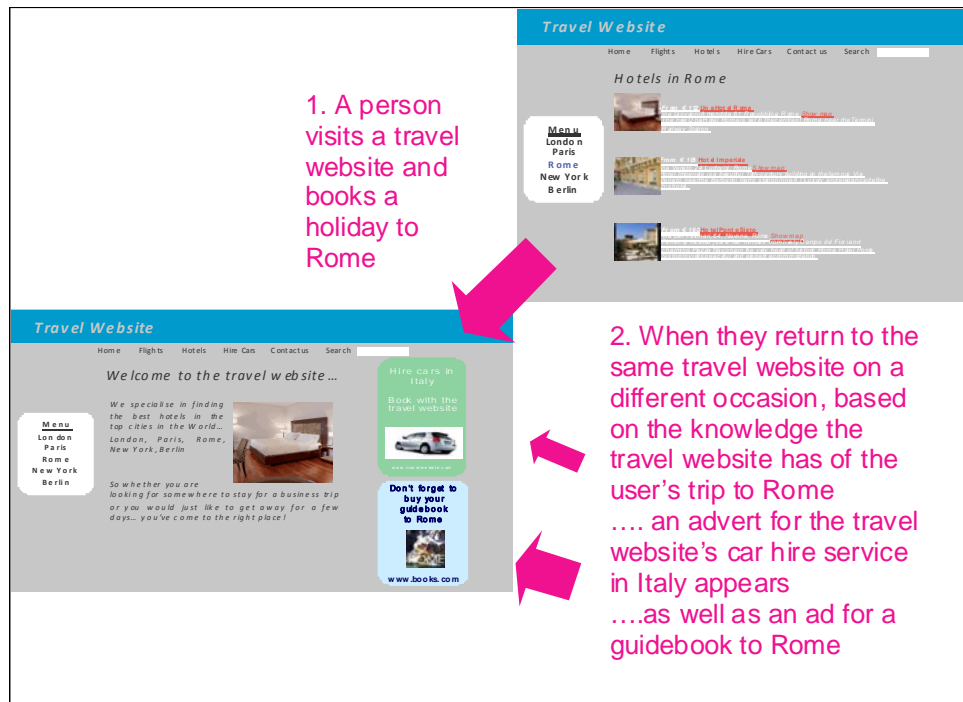


Figure 3.3: First party behavioural advertising



Third-party behavioural advertising

- 3.14 Third-party behavioural advertising refers to the practice whereby a website publisher partners with an ad network to collect information and profile users on the basis of information gathered from the publisher's website(s) and third-party websites which are members of the same ad network. For example a person may be served an ad for luxury golf holidays based on information from his web browsing behaviour over a number of sites which indicates that he has been searching for first class air travel and likes golf.
- 3.15 Figures 3.4 and 3.5 illustrate this process and how it would appear to that person. A computer user visits a website which is part of an ad network. The ad network then places an identifying cookie in the computer's browser. The computer user then visits other websites which are all part of the same ad network, which is then able to recognise the cookie set (and by extension the computer) and thus build an interest profile. On a subsequent visit to another website, also part of the same ad network, a behaviourally targeted advert appears based on the previous browsing behaviour.

Figure 3.4: Third party behavioural advertising

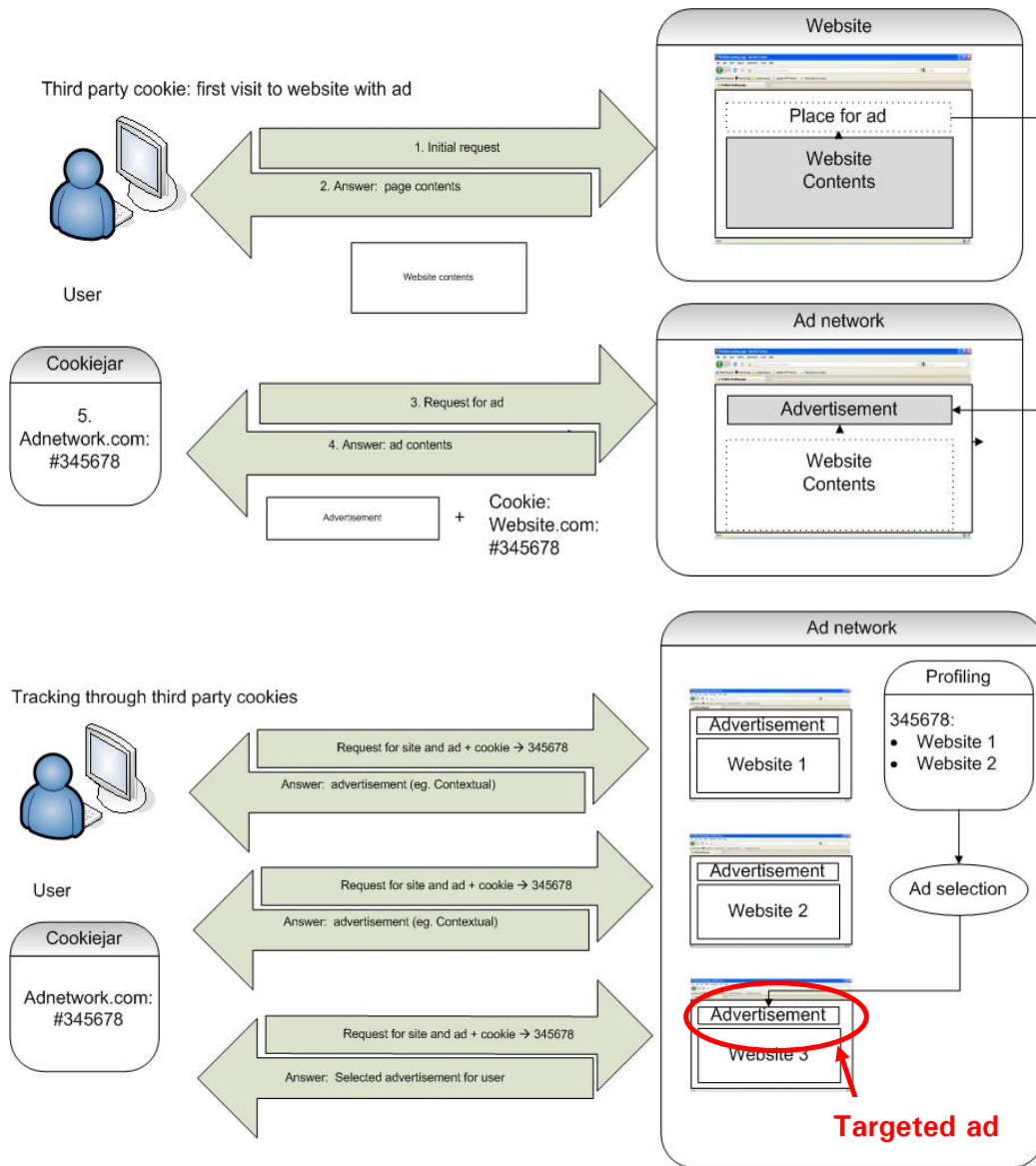


Figure 3.5: Third party behavioural advertising – an example

1. A person visits a web page about Rome

Travel Website

Menu
London
Paris
Rome
New York
Berlin

About Rome
By a recent tourist

Rome is a beautiful city with excellent architecture, historic sites and ice cream!

I went to Rome in the summer, so the weather was scorching hot (making ideal for those ice creams) which meant I had to keep going in doors to escape the sun. While there are lots of art galleries and historic buildings to view inside, I would recommend going when it is slightly less hot either in the spring or autumn.

The hotel I stayed in was 4 stars, but slightly shabby around the edges. However, it was cheap. So make sure you do your home work before going and don't just rely on the ratings.



2. Some time later they visit a football site and an offer for cheap hotels in Rome appears

Sports R' Us Website

Menu
Tennis
Hockey
Football
Basketball
Running

Football news

Football shocker on pitch!



Last night the world was shocked as the worst football team in the world, the Clapham Megatons, suddenly won their tenth match in a row. This is the first time they've won anything, let alone an entire series.

Team Captain Mick Strings said excitedly, "it was the best night of my life, I always knew the lads had it in 'em!"

Stay tuned to Sports R' Us for even more coverage of the Clapham Megatons' rise to fame and glory.

Hotels in Rome



2 nights for the price of 1

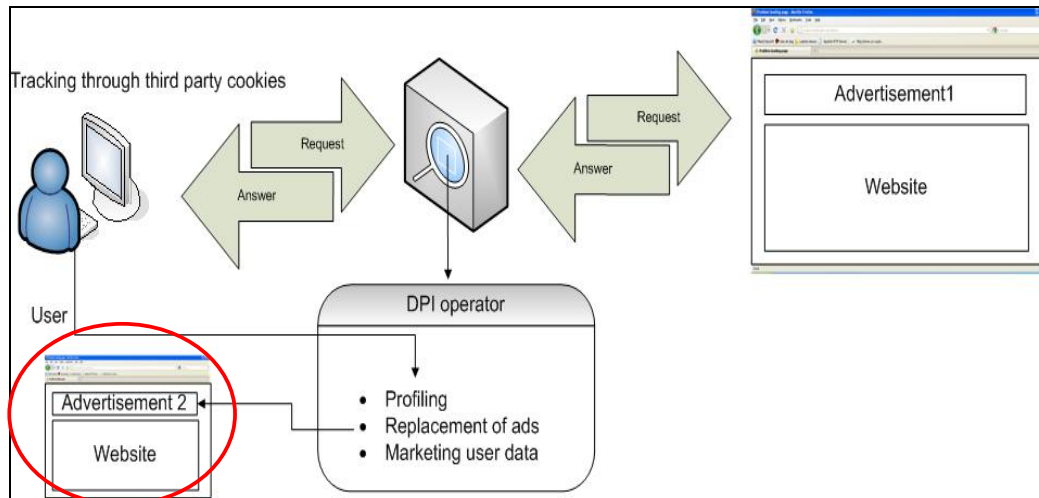
[click here](#)

Source: IAB

Behavioural Advertising via Deep Packet Inspection

- 3.16 Another method of third party online behavioural advertising using deep packet inspection techniques (DPI) has evolved in recent years. This involves a company collecting and using internet traffic data passing through an Internet Service Provider (ISP).
- 3.17 ISPs are required by many governments around the world to implement DPI techniques to allow for lawful intercept (assisting law enforcement) and are permitted by many governments to implement it to enforce acceptable use policies. In recent years, however, DPI has also been applied to behavioural advertising. Providers such as Phorm, Front Porch and NebuAd combine DPI with technologies that set and monitor cookies on a computer to track a user's movements on the web and to build a behavioural profile. With deep packet inspection all traffic is monitored. The consumer is then served with targeted advertising, which may replace existing adverts. Figure 3.5 illustrates DPI for the purpose of behavioural advertising.

Figure 3.5: Deep Packet Inspection



Behavioural Retargeting

- 3.18 Retargeting is a slightly different model of what, in essence, could still be considered behavioural advertising. The aim is to target consumers who have visited a website and nearly purchased a product but left the site before doing so. Retargeting companies are

able to track this consumer across a number of websites that are part of their network and serve them an advert for the product they nearly purchased.

- 3.19 In the other forms of behavioural advertising described, web browsing behaviour is used to build a profile and then serve an advert based on that profile, hopefully leading the computer user to then visit the advertiser's website. With retargeting, however, the computer user has already visited the advertiser (for example an online shoe retailer) but then their web browsing is tracked so that an advert for that shoe retailer can be served to generate a return to the original website. No profile is created but consumers are still tracked across websites with the aim of serving them a targeted advert.

The Use of Cookies

- 3.20 Most behavioural advertising works using cookies dropped on a user's computer either by a website visited or by third parties with whom the website has a relationship. The cookies used in behavioural advertising are 'permanent' cookies that are not deleted when the browser is closed. These cookies can also be used for a number of other purposes. For example, they can retain user preferences for a particular website or provide analytics about a website's performance (for example the number of users a page receives or time spent on a page). They are distinct from session cookies which manage browsing sessions on a site, for example allowing the user to navigate from page to page without having to log-in repeatedly or add items to a shopping cart. These cookies are automatically deleted from the user's computer when the browser is closed.
- 3.21 Flash cookies, or local shared objects, can also be used in behavioural advertising, although this is uncommon at present. They allow for the persistent storage and retrieval of information of an internet user's web browsing experience but cannot be managed or deleted via web browser controls. Flash cookies are used in versions of Flash Player which is a common software package used to display video content on websites but can also be used to restore or 'respawn' cookies which have been deleted.

3.22 Other tracking devices which can also be used in behavioural advertising are web beacons. These are commonly used to allow a website to count users who have visited a page and can also be used to identify audience segments and to do analytics and research. They may also be referred to as web bugs, tracking bugs, tracking pixels, pixel tags, 1 × 1 gifs, single-pixel gifs, pixel tags, smart tags, action tags, tracers, cookie anchors, or clear gifs. Blocking cookies will prevent web beacons from tracking a person's specific activity but they may still record an anonymous visit from the IP address.

4 ONLINE TARGETING OF PRICES

Summary

There are a number of ways that a retailer could potentially target online prices at consumers. These include the use of past online behaviour to target prices displayed online or restrict product ranges, post code targeting and the use of online behaviour to target discounts at consumers.

These practices differ according to:

- Whether the price to the targeted consumer is increased or decreased – discounts clearly decrease prices to the consumer in question but postcode targeting or changing list prices (or product range) may increase prices to the tracked consumer.
- Whether the practice is transparent or not – if discounts are emailed or advertised, consumers are clearly aware that they are being targeted (although they may not realise on what basis) but the remaining practices are unlikely to be transparent to consumers.
- The frequency with which they are currently employed – discounts are commonly offered and postcode targeting may happen to some degree. We have no information about firms that are currently using past online behaviour to alter list prices or restrict the product range.

4.1 Targeting prices based on customer information is a widely established practice in bricks and mortar stores. For example, supermarkets have long offered customers discounts linked to loyalty card information. The online environment arguably enhances the possibilities for price targeting because much more information about consumers can be collected and it is also potentially possible to alter the price displayed to different consumers, or at least target offers very directly through email or advertisements for discounts.

4.2 We discuss the various forms of price targeting below. These are:

- The use of past online behaviour to target prices displayed.
- The use of past online behaviour to restrict the product range which, we argue, can have a similar effect to price targeting.
- Postcode targeting.
- The use of past online behaviour to target discounts at consumers.

4.3 The discussion is largely hypothetical as most of these practices, with the exception of targeted discounts, are not in use at the moment, but there is talk of the possibility of using these practices in future and postcode targeting, in particular, might be most likely to develop in future.

Use of past online behaviour to target prices displayed

4.4 In its rawest form, online price targeting could involve altering the price displayed based on information collected about the consumers' past online behaviour.

4.5 It is perhaps most easy to conceive of such targeting being done on a 'first-party' basis so data collected on a consumers' behaviour on a website is used to target prices on that website. For example, an online retailer could identify whether a consumer has visited its website before. It may then lower prices to new customers to prevent them from looking elsewhere, reasoning that established customers are less likely to shop around or that returning customers must have been dissatisfied with competing offerings. Alternatively, the firm could lower prices to returning customers who did not make a purchase on their initial visit reasoning that the customer may be comparing with other offers and/or that the initial offer was not sufficiently attractive. Firms could also make use of a customers' purchase history. This does not necessitate any tracking of the user's browsing history. Instead, the retailer might just infer this from the consumer's credit card number or log-in details.

4.6 It is possible that technology will evolve that allows for third party data to be used for price targeting. Consumers' price sensitivity could be related to whether they generally browse websites for luxury

brands, whether they look at money-saving or discount websites, whether they view competitors' websites or comparison sites. It is also possible that some firms use online information to infer the cost of serving a particular consumer, for example insurance companies might be able to infer something about the riskiness of a customer from the websites they view. Consumers could be 'scored' according to price sensitivity or riskiness, in much the same way that behavioural advertising scores consumers in terms of various interest segments. Simpler tactics could also be employed. For example, consumers could be targeted with different prices depending on whether they click through from a price comparison site or a product comparison site or search engine.

- 4.7 Price targeting may be particularly likely where offers are anyway hard to compare, perhaps because they change over time or are customised in some way, so the targeting is less obvious. Alternatively, it may take the form of retracting special offers which are available to untargeted consumers.

Use of past online behaviour to restrict range

- 4.8 It is also possible that technology could be used to restrict the range of products shown to a consumer based on their browsing behaviour. For example, a customer identified to be price insensitive may only be shown upmarket brands while those that are price sensitive are shown cheaper alternatives. This is similar to price targeting in the sense that the retailer makes an assumption about the consumer's willingness to pay and offers products in a particular price range on that basis. We are not aware that this occurs at present, although consumers may be targeted with recommended products.

Postcode targeting

- 4.9 Although the focus of this study is on targeting based on consumers' browsing behaviour, price sensitivity can also be inferred without using a consumer's online history. This is most likely to be information on location. For example, a website may require a consumer to enter an address or postcode before being shown prices and/or the product range. In our discussions with stakeholders we

were told that postcode targeting is the most likely form of online price discrimination to evolve.

- 4.10 Prices are already targeted according to country of residence. Within Europe, this is prevented under the Provision of Services Regulation 2009 (which implement the Services Directive), which prohibits online retailers from discriminating against consumers (for example in terms of prices charged or different terms and conditions based on their nationality or place of residence), unless this can be directly justified by objective criteria.¹⁰ Anecdotal evidence obtained in our stakeholder meetings suggested that some companies may also flex prices within the UK although we have not been able to ascertain this independently.
- 4.11 Consumers who realise they are being targeted in this way could provide false information to get a lower price but firms may find ways of preventing this behaviour. For example, if prices are targeted by country of residence, the customer may be required to have a credit card registered to the country specified. Location can also be inferred directly from an IP address which would be harder for customers to avoid.

Use of browsing data to target discounts at consumers

- 4.12 The most common form of online price targeting is to offer vouchers or discounts to internet users based on their online behaviour. For example, a user may have an online account with a particular company which records the products it buys and emails discounts on this basis. Alternatively, a retailer could send a voucher or discount to a consumer who has previously browsed a product but did not buy it or viewed a related or complementary product. It may also be possible to use behavioural advertising to send advertisements announcing sales or directly offering discounts to particular consumers.

¹⁰ Regulation 30

- 4.13 These practices differ from the targeting of displayed prices discussed above in that the tracked consumer always receives a lower price. It is akin to the offline use of loyalty cards.

5 CONSUMER BENEFITS AND POTENTIAL FOR HARM

Summary

Behavioural advertising is an efficient way of targeting consumers. It reduces advertising costs, funds free access to content and reduces irrelevant advertising which may irritate consumers. Some concerns also surround the practice. These are mostly centred on a dislike of being tracked or monitored, concerns about the misuse of the data, installing cookies on a personal computer or dislike of the practice in general. These concerns decrease the more transparent the practice is and the more control that consumers have over it. The concerns increase with the sensitivity of data and the more data is collected and shared. The extent to which these potential harms materialise will differ according to the means of advertising. Consumers are more comfortable with first party behavioural advertising than they are with third party behavioural advertising or with the use of DPI for behavioural advertising. However, none of these concerns significantly inhibit internet use – only five per cent of consumers considered they would reduce their internet use as a result of behavioural advertising.

We have also considered the benefits and harms from online targeted pricing. We have particular concerns about the use of browsing behaviour to alter, and potentially increase, the price that is displayed or restrict product range. Consumers are unlikely to find this acceptable and, if they are not aware of it, they may not shop around to get the best deal. Targeting prices on the basis of postcodes may also be considered unacceptable by consumers. Our qualitative research suggested that consumer attitudes to targeted pricing are significantly more negative than they are towards online behavioural advertising. The widespread adoption of targeted pricing practices could therefore have the potential to undermine consumer trust in online markets.

Introduction

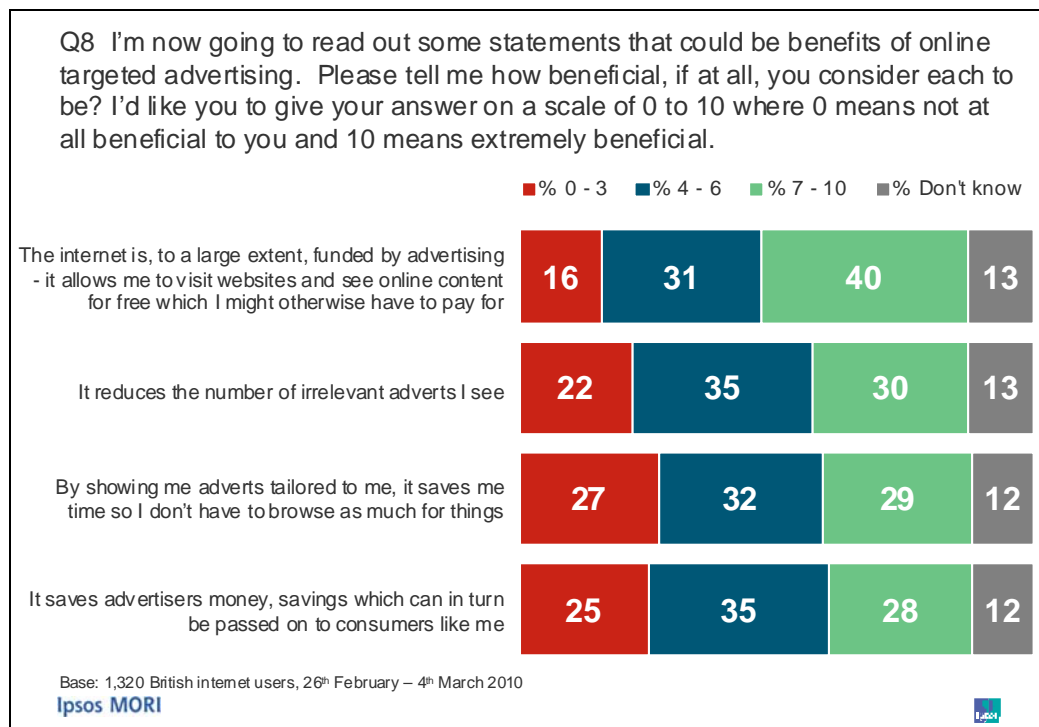
- 5.1 This section sets out the benefits and harms that consumers may experience as a result of online targeted advertising and pricing. It draws on consumer research exploring consumers' knowledge, experience and views of these issues. The full consumer survey can be found at Annexe B.

Benefits of Online Targeted Advertising

- 5.2 Behavioural advertising significantly improves the targeting of advertising. To illustrate, ValueClick, a firm specialising in online targeting, says improved targeting means that click-through rates on behaviourally re-targeted ads are 110 per cent to 840 per cent higher than average.¹¹ This reduces advertisers' costs and increases web-publishers revenues. This feeds through to consumers in the form of reduced prices for the goods and services advertised as well as free, or at least cheaper, access to content. The greater the extent of competition in these markets, the more the benefits will be passed on to consumers in this way. Consumers are also likely to receive adverts for products that are more likely to be of interest to them.
- 5.3 Our survey suggested that consumers believed these benefits were significant, in particular free access to content. As show in Chart 5.1, over 70 per cent of respondents thought free access to content was very or fairly beneficial. Over 60 per cent of people thought that a reduction in irrelevant adverts was very or fairly beneficial, and similar figures were given for decreased search times and the reduction in the cost of goods and services.

¹¹ www.businessweek.com/technology/content/apr2009/tc2009045_367596.htm Figures on the increased effectiveness of other forms of behavioural advertising are not available.

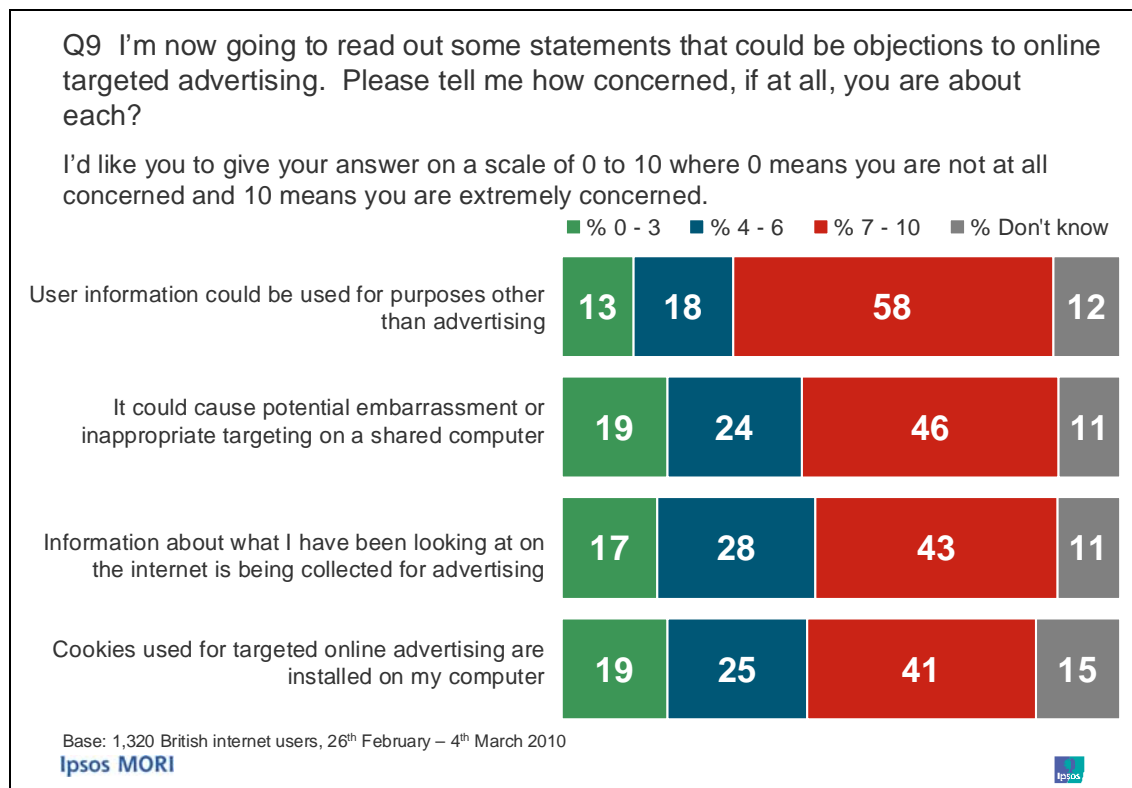
Chart 5.1 Benefits of online targeted advertising



Potential Harm from Behavioural Advertising

- 5.4 A number of consumer concerns about behavioural advertising have also been raised. These relate only to behaviourally targeted advertising and not to other forms of advertising, such as contextual advertising.
- 5.5 Our consumer research suggested privacy was the main concern - this was mentioned spontaneously by 24 per cent of respondents. We also prompted consumers as to their views about a number of specific concerns namely the misuse of data, irritation or embarrassment from receiving targeted adverts, tracking and monitoring or cookies being installed on their computers. The results from these prompted questions, shown in Chart 5.2 below, revealed higher levels of concerns.

Chart 5.2 Objections to online targeted advertising



Misuse of information

- 5.6 Misuse of information is the biggest concern consumers have about online targeted advertising with nearly 60 per cent of respondents highly worried that the information collected might be used for other purposes than advertising. This is also echoed in other research we have reviewed, including recent work by Demos.¹²
- 5.7 At present, the scope for such misuse is limited by the extent to which the data is processed. Web logs collected for behavioural advertising are typically analysed to create an interest category 'score' for a user. It is that score that is associated with a cookie on the user's browser. Typically, the data is only associated with an IP address and not with other more identifiable characteristics such as a name or email address which further reduces the potential for harm. Nevertheless it is possible that the data could be misused for

¹² Private lives, a people's enquiry into personal information, Peter Bradwell, Demos, 2010.

example to identify people as being vulnerable to particular scams or, potentially, for targeted pricing although as we described in section 4 we are unaware of this happening at present.

- 5.8 Technology, and the way in which consumers use the internet, may also evolve in a way which might make it easier for harm to arise. In addition, the already complex nature of the relationship between web publishers, advertisers, ad networks and technology companies could include even more companies. If data is passed to a multitude of companies, it may be less possible to check that it is being used responsibly.

Objections to tailored advertising

- 5.9 Some consumers dislike receiving tailored advertising. These objections to tailored advertising often arise because the computer is shared with others. For example, someone may fear that their browsing may result in a later user seeing an advert, for example, for a solution to a specific health problem, which may cause embarrassment. We were also told of one example where a child viewing a games website was served a behaviourally re-targeted advert for champagne after an adult bought wine online using the same computer. 46 per cent of users in our consumer survey were highly concerned about this possibility.

Tracking and monitoring

- 5.10 43 per cent of consumers expressed high levels of concerns that information on their internet browsing was collected for advertising purposes. A further 28 per cent were fairly concerned about this.

Objections to cookies being installed on computer

- 5.11 Some consumers may also object to cookies or other tracking devices being installed on their computer – when prompted, 41 per cent of consumers expressed concerns about this. Such concerns may arise from a lack of understanding of what cookies do – only a quarter of users in our research understood how cookies work although a further 28 percent said that they had some understanding.

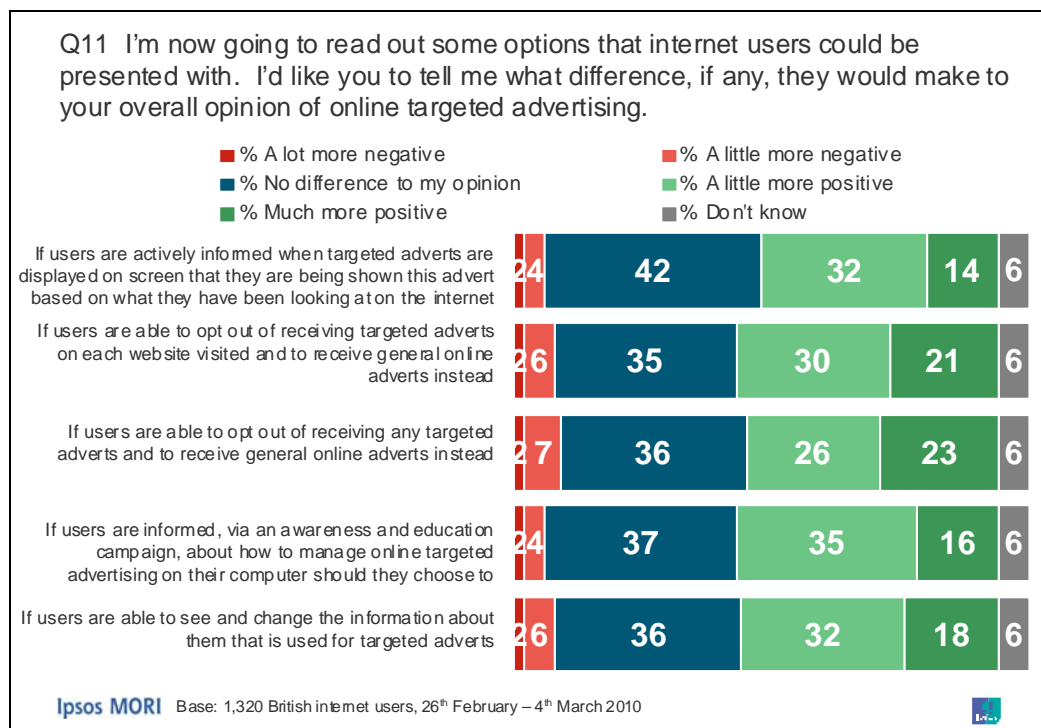
Factors affecting Level of Concern

5.12 The concerns about behavioural advertising depended on levels of transparency and control and the amount of data collected.

Transparency and Control

5.13 First, increased levels of information and control about the practice significantly reduced concerns. Concerns were reduced by 50 per cent in situations where consumers were actively informed about the practice (compared to the status quo where information is in privacy policies), were able to opt-out, where there was awareness campaign or education, or where consumers were able to see and alter the information held about them.

Chart 5.3 Control and information



Amount and type of information collected

5.14 The research also shows that consumers become more uncomfortable as the amount of information that is collected

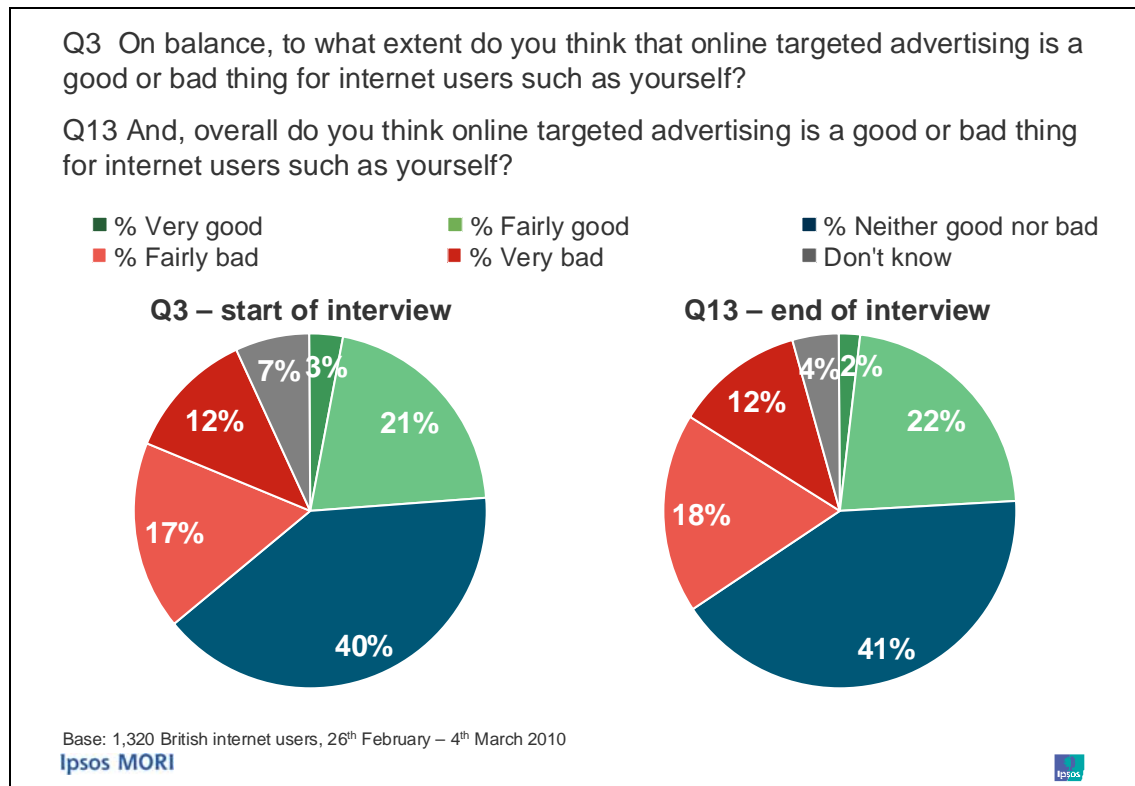
increases. Our research said that most users were prepared to share a limited amount of information for targeted advertising but few were comfortable with all information being shared (and one in five users said they would rather receive general adverts). Consumers were also likely to feel more negative towards behavioural advertising done via third parties or using deep packet inspection techniques than if it is done by first parties.

- 5.15 Collecting web browsing data for the purpose of targeting adverts at children also raises concerns as children may be more prone to manipulation and are less likely to understand information about the practice or be able exercise control over the technology. Collecting sensitive data such as health or financial affairs may also raise particular concerns. Anecdotal evidence suggests that currently there is no appetite for behavioural advertising based on health information but that the financial sector could well have demands for this type of online advertising in the near future.

Impact of Concerns

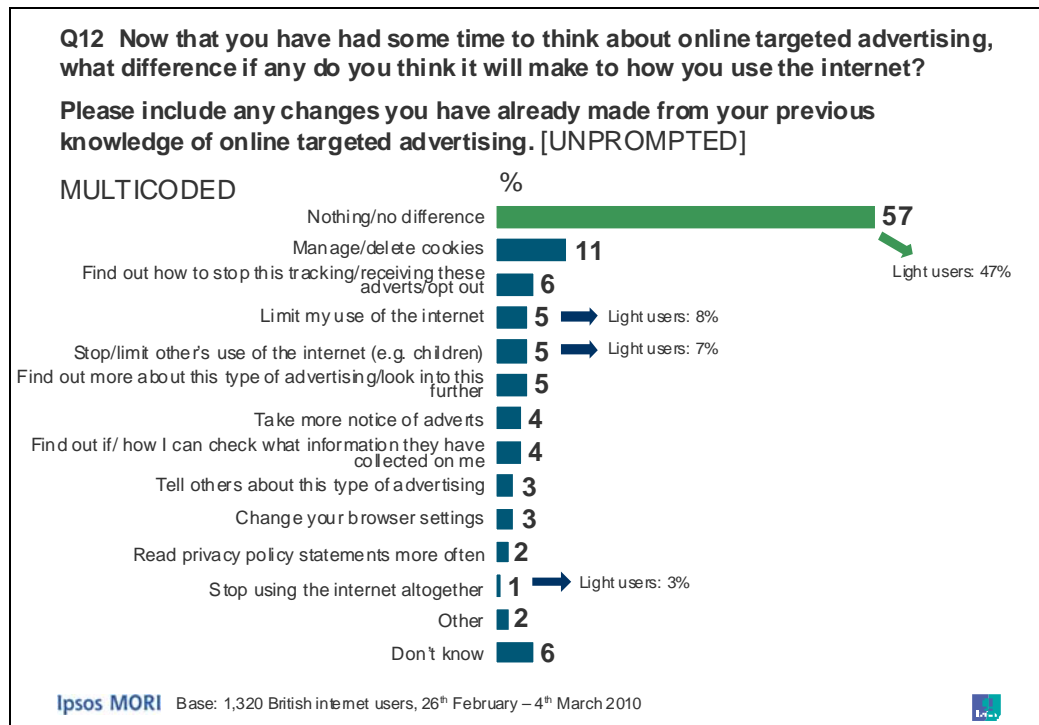
- 5.16 Overall, around 30 per cent of respondents disliked behavioural advertising, compared to 24 per cent who liked it and 40 per cent of respondents who felt neutral towards it. Concerns were greater when respondents were asked specifically about third party or DPI-based advertising, with a third respondents saying they felt more negative about these techniques. The question was asked both at the beginning of the interview and the end after the benefits and concerns had been more fully explored. The results are shown in Chart 5.4.

CHART 5.4 – OPINION OF ONLINE TARGETED ADVERTISING



5.17 Our research suggested that, at present, the concerns were not significant enough to have a large impact on trust in the online market. Nearly 60 per cent of respondents said the practice made no difference to their behaviour. Just one in a hundred respondents said they would stop using the internet altogether (predominantly light users) and five per cent said they would limit their use of the internet. The majority of the remaining consumers (11 per cent) said that the most likely action they would take was to manage their cookies, and some said they would find out how to stop receiving targeted adverts (six per cent).

Chart 5.5 Expected changes to internet use



5.18 The extent to which these issues are a concern may change over time. For example, consumers may get more comfortable with these new technologies and learn how to avoid them if they wish. Alternatively, consumers may become more concerned if there is any negative publicity surrounding the practice, such as a 'bad news' story involving the misuse of data.

Benefits of Online Price Targeting

- 5.19 Price discrimination is a pervasive practice offline. For example, consumers may be granted student discounts, offered volume discounts or might negotiate the price they pay.
- 5.20 It is a well-established economic principle that price discrimination can be welfare enhancing. This is because the production of most goods and services requires fixed costs and it can be efficient to recover such costs by charging more to consumers who are less price sensitive. At the extreme, a producer may only be able to cover its fixed costs by targeting a segment of consumers with higher prices while others pay lower prices, so all consumers benefit from price discrimination as without it the good would not be produced at

all. More generally, price discrimination means that more price sensitive consumers gain from having a lower price and will purchase more of the good, while consumers who are less price sensitive get charged a higher price and may reduce their purchases. It is ambiguous whether the overall consumer welfare will increase or decrease – this is likely to depend on whether overall sales increase or decrease. The OFT does not, therefore, have a general view about whether price discrimination is beneficial or harmful – it always depends on the particular circumstances.

- 5.21 In some cases, different prices may simply reflect different costs. This is not strictly speaking price discrimination, but has a similar appearance in that different customers are charged different prices. Cost reflective pricing is generally efficient as consumers are incentivised to choose high cost options only when they value it more and are prepared to pay the higher price.
- 5.22 It may be that the range, rather than the price, is targeted at consumers. This may bring benefits to consumers if it means that they only see items most relevant to them.

Potential Harm from Online Price Targeting

- 5.23 To the extent that the same tracking technologies and methods are used to gather information for both online behavioural advertising and for targeted pricing based on past online behaviour, many of the concerns around privacy and the misuse of personal information will be similar.
- 5.24 Consumers also dislike the practice itself. Our qualitative research suggested that consumer attitudes to online targeted pricing are significantly more negative than they are towards online behavioural advertising. Qualitative research recently published by Demos also shows consumers are significantly more hostile towards the idea of targeted pricing than they are in relation to online behavioural advertising.¹³ A 2005 survey conducted in the US found that 87 percent of respondents objected to the practice of online stores

¹³ Demos (2010), *Private Lives: a people's inquiry into personal information*, pp.55-56.

charging people different prices for the same products based on information collected about their shopping habits.

- 5.25 Objections are likely to be particularly strong if it were ever the case that targeting was linked to factors such as age, infirmity, disability, intelligence or low income or, perhaps, to the extent to which consumers are internet savvy and, for example, remember to delete cookies. We did not undertake quantitative research on price targeting as it is not widespread at the moment, so questions posed to consumers would be hypothetical and complex and unlikely to elicit reliable results.
- 5.26 Our key concern surrounds the targeting of displayed prices or product range based on a history of online behaviour. Consumers generally do not expect online prices to be tailored in this way – indeed, many may think of the internet as facilitating price comparison. They are likely to view the use of their data in ways that may result in higher prices as unacceptable and intrusive. In addition, they may not shop around and compare prices as much if they do not realise they are being targeted in this way. Postcode targeting may also be viewed as objectionable by consumers although it is arguably less intrusive than targeting based on past online behaviour.
- 5.27 These concerns may lead to a deterioration in trust in online markets and ultimately to reduced use of the internet. This would have much wider consequences on the development of online commerce and a reduction in the benefits that this may bring. This is of particular concern to the OFT.
- 5.28 Our main concern is this deterioration of trust in the online market. Nevertheless, price discrimination can give rise to concerns in other environments. First, although price discrimination can enhance consumer welfare in some situations, in others it can decrease it. This is particularly likely where overall output falls as a result of price discrimination.
- 5.29 In addition, consumers may change their behaviour to avoid price discrimination by 'disguising' their true type. In the offline world, for example, business people may take flights on a Sunday rather than a Friday to benefit from the lower prices intended to attract leisure passengers. In the online world, consumers may spend time deleting

cookies or avoiding certain web pages. This kind of 'cat and mouse' behaviour may be wasteful.

- 5.30 The existence of a range of prices may also make it hard to compare prices and shop around. For example, consumers may first have to try and find out whether certain shops are offering discounts, and what they need to do to qualify for them. This increases search costs and might soften price competition.¹⁴
- 5.31 There is also some evidence that suggests that consumers have a 'per se' dislike for price discrimination particularly where they are unaware that they are being targeted and on what basis.¹⁵ Examples of consumer backlashes against price discrimination range from the extreme segmentation of fares on 19th century railways to Coca-Cola's experiment with vending machines that charged consumers more in warmer weather.¹⁶ Dislike of price discrimination is even more pronounced where higher prices are targeted at vulnerable consumers, a situation that has also been of concern to authorities in offline markets.¹⁷

¹⁴ There are a number of relevant pieces of academic models that consider the effect of on-line price targeting on competition, including Armstrong and Zhou (2010) 'Conditioning Prices on Search Behaviour', *mimeo*, University College London, and Acquisti and Varian (2005) 'Conditioning prices on purchase history' *Marketing Science*, Vol 24 (3), Summer pp 367-381. Armstrong and Zhou find that the end result may be that prices are raised to all consumers. For a more general discussion of search costs and behavioural biases on competition, see Section 2 of 'What does Behavioural Economics mean for Competition Policy?' OFT1224, March 2010.

¹⁵ Demos (2010), pp.55-56.

¹⁶ Odlyzko, 'Privacy, Economics, and Price Discrimination on the Internet', ICEC 2003: *Fifth International Conference on Electronic Commerce*, July 2003.

¹⁷ Ofgem, for example, intervened against price discrimination practices in January 2009 (Ofgem 'Addressing undue discrimination' April 2009). The OFT also found that, in the personal current account market, the use of overdraft charges amounted to a significant cross subsidy from 'vulnerable', low income and low saving consumers to higher income, higher saving ones.

5.32 Finally, in some cases, firms may be able to restrict competition by cutting prices to consumers' targeted by rivals, thereby preventing these rivals from competing effectively.¹⁸

¹⁸ See, for example, para 5.6 of 'Abuse of dominant position: understanding competition law' OFT Competition Law 2004 Guidelines.

Part 2 – Evaluation of Existing Consumer Protection

6 MARKET BASED SOLUTIONS

Summary

The market has responded to consumer concerns about targeting.

Market based tools are being developed that allow consumers who are aware of, and concerned by, the collection of information to have greater control. Browser software, for example, provides control over cookie-based targeted advertising and targeted pricing. Users can set their browsers to accept or reject all, or certain, cookies (for example third party cookies). Modern browsers also have a 'private browsing' mode which allows people to surf the web without data being stored by the browser. 'Proxy servers' have also developed which allow web users to see pages via a third party's web server, meaning that the operator of the page only sees the IP address of that third party server. Proxy services therefore can also potentially control geo-targeting of prices based on IP addresses. Problems remain, however, as consumers are unaware of these tools and may find them difficult to use, although as web technology evolves both the tools and awareness of them may develop.

The threat of intermediary firms arbitraging away price differences may also prevent targeted pricing, if the price differences are big enough. Direct competition for customers will also inhibit the extent of price rises, although this may be less effective when the customers targeted are those that are less likely to shop around.

Reputational effects may also address consumer concerns. In several cases, firms engaged in behavioural advertising have responded to consumer concerns by increasing transparency and control in order to maintain their own reputation. The fear of a consumer backlash may also be the main factor in preventing firms from attempting price targeting. It is, however, not clear that such reputational considerations are sufficiently strong to rule out the need for further protection.

Thus while the market provides some mitigation for the consumer concerns we have identified at present these are not, by themselves, sufficient.

- 6.1 The market is providing a range of third party solutions which are capable of mitigating some of the possible consumer harms identified in Part 1 of this report. Competition between firms also mitigates some harm, in particular, as it provides an incentive for firms to create a reputation for dealing fairly with consumers.

Technical Solutions

- 6.2 One of the most effective ways to control the information that a website or a third party can collect about a user's browsing behaviour is to manage cookies. This can be done on all recent versions of popular browsers. Most internet users therefore already have a degree of control over behavioural advertising, although our research suggested that most consumers are unaware of this.
- 6.3 Users can set their browsers to accept or reject all, or certain, cookies (for example third party cookies). Users can also set their browser to prompt them each time a cookie is offered. Users can even block banner adverts from downloading using browser software such as Firefox's Adblock Plus.
- 6.4 Modern browsers also provide the ability to navigate the web privately. Internet Explorer 8, Firefox and Chrome all have a private browsing mode which allows people to surf the web without data being stored by the browser. Internet Explorer also has 'InPrivate Filtering' settings which provide users with greater control over which third-parties can potentially track their browsing activities. This is done by analysing the content provided in websites by third parties (such as maps, adverts, graphics etc) and then allowing the user the option to allow or block content from third party providers which appear frequently, either manually or automatically. This is particularly relevant to behavioural advertising as data on the person's web browsing habits will be recorded by the third parties through mechanisms embedded in the content they provide.
- 6.5 Other technology solutions have also emerged recently including proxy services which allow web users to see pages via a third party's web server, meaning that the operator of the page only sees the IP address of that third party server. Using a proxy means that the

website will not know the IP address of the user viewing the content or be able to place tracking cookies on the user's computer.

- 6.6 There is also a range of technical solutions being developed to address wider concerns about internet security. These include solutions such as Ghostery, a browser plug-in that blocks any web bugs, ad networks and other tracking devices on various websites.
- 6.7 The market is therefore clearly reacting to privacy concerns and providing solutions to address them, although awareness of these solutions is still low. Existing solutions are also still far from perfect. Browser privacy settings can be confusing - it is not always easy to understand what the different levels of protection mean or the consequences of changing settings. Adjusting privacy settings to reject all cookies can interfere with the normal functioning of most web pages. Moreover, as opt-out settings for behavioural advertising are stored using cookies which are not persistent, if a user deletes cookies from time to time, the user will be opted-in again. Consumers also need to change their settings on each computer and browser they use.
- 6.8 Certain types of tracking devices, such as 'flash cookies' and 'web bugs', are also not controlled through browser settings. It is possible to disable flash cookies but this is a relatively complex process and one which the vast majority of consumers are not aware of. It may also interfere with the functioning of websites as many rely on flash cookies to deliver content. Browser settings are also ineffective where deep packet inspection techniques are used for behavioural advertising.
- 6.9 Overall, market solutions may go a long way towards addressing the consumer harms identified. Browser software, already owned by most consumers, provides control over cookie-based targeted advertising and targeted pricing. Proxy services can also potentially control geo-targeting of prices based on IP addresses. Problems remain, however, as consumers are unaware of these tools and may find them difficult to use. They also do not deal effectively with certain less commonly used tracking devices such as flash cookies or web bugs unless dedicated software is installed. None of the tools

help deal with behavioural advertising using deep packet inspection techniques.

- 6.10 These tools are, however, still rapidly evolving. Awareness of them may increase and they may also become more user-friendly. This is especially likely if the level of concern about behavioural advertising, or privacy in general, increases.

Firms' reputations and other competitive considerations

- 6.11 A firm's reputation can help to prevent some of the consumer harms and concerns raised in Part 1 of this report. It may well explain why online price targeting has not evolved. The negative publicity received by Amazon following experiments involving differential online prices is a good example of this. Amazon abandoned these tests when consumers became aware of the nature of the experiments through conversations on internet chat sites.¹⁹ Thus, the internet has acted not only as an enabler of price discrimination but has also empowered consumers to act as a constraint on it.²⁰
- 6.12 The potential to target some customers with high prices will also be constrained by competition from other firms for these customers' business. This will be less effective if the targeted consumers are those who are less likely to switch and shop around. So, while competition for business within a postcode area may keep prices down if geo-targeting were used, competition may be less effective in reducing high prices directly targeted at those that do not shop around. In addition, differential prices may be constrained by the potential for business models to evolve which exploit the arbitrage opportunities created.
- 6.13 Reputational concerns have also affected behavioural advertising. The negative publicity surrounding Phorm and their Webwise system has ensured that, for the moment at least, no internet service provider in

¹⁹ See, for example, <http://news.bbc.co.uk/1/hi/business/914691.stm>

²⁰ Weiss and Mehrotra, 'Online Dynamic Pricing: Efficiency, Equity and the Future of E-commerce', *Virginia Journal of Law & Technology*, 2001.

the UK is using deep packet inspection for the purpose of behavioural advertising. It has also driven providers of behavioural advertising to reassure internet users through enhanced privacy and transparency settings. Both Google and Yahoo allow users to edit interest categories they may have been assigned to, so they receive more relevant advertising, and have developed a persistent opt-out cookie. In the case of Yahoo, the persistent opt-out only applies to people signed up to their services whilst in the case of Google the permanent opt-out is achieved via a browser plug-in which users need to download. Google also provides a label next to behavioural adverts served by their ad network Double Click which tells the internet user who has served the advert and how to opt-out of the practice. Yahoo is developing a similar policy.

- 6.14 Other firms involved in behavioural advertising invest less in such efforts to inform and empower consumers. For example, our discussions with stakeholders have indicated that most publishers' thinking is underdeveloped when it comes to providing disclosures to users and giving them information about their options to opt-out.

7 SELF REGULATION

Summary

The online behavioural advertising industry has developed a self-regulatory framework, the Good Practice Principles, which set out commitments on clear notice, user choice and education.

The development of the Good Practice Principles and their coverage of the leading market players in the behavioural advertising market is a welcome start to self-regulation. However, although the self-regulatory principles are still evolving, and have moved on even during the course of our study, we believe there is scope for such evolution to further address consumer concerns.

We list below our recommendations for how self-regulation can be enhanced:

- Increase transparency to consumers by developing clear ad notices alongside behavioural adverts.
- IAB to give further consideration and provide clearer guidelines around sensitive information and the use of that data for behavioural advertising.
- Increase awareness of the Good Practice Principles amongst publishers and advertisers seeking to engage in behavioural advertising.
- Consider extending coverage of first party behavioural advertisers and whether retargeting companies and social networking sites should be included
- Consider whether the Good Practice Principles should include a commitment to maximum length of data storage for the purpose of behavioural advertising.
- Include non-industry, independent stakeholders on the Board which

Introduction

7.1 The UK online behavioural advertising industry, which comprises ad networks, technology companies and trade bodies, has developed a set of self-regulatory principles for behavioural advertising. Self-regulation can offer benefits for consumer protection and add real value to the functioning of efficient markets. It can be an effective and flexible solution for resolving consumer issues.²¹ In this chapter, we examine the self-regulation of behavioural advertising and provide an assessment of its effectiveness together with recommendations for improvement. There is no self-regulatory framework governing online targeting of prices.

The IAB Good Practice Principles

7.2 The Internet Advertising Bureau (IAB) is the trade association for online advertising. In March 2009, the IAB established a self-regulatory framework which, it claims, covers the vast majority of the UK behavioural advertising market. These 'Good Practice Principles' set out commitments on notice, user choice and education:²²

- **Clear and unambiguous notice:** A company collecting and using online information for behavioural advertising must give clear and unambiguous notice to users that information is being collected for this purpose. This includes details of the type of information collected and how it is used. The IAB suggests that this information can be provided in a privacy policy. When members deliver third party advertising, both the ad network and the web publisher must provide such information.
- **User choice:** Companies engaged in behavioural advertising must allow users to opt out. In the case of third party advertising, ad networks and technology companies must require its contracted

²¹ See Policy Statement, The role of self-regulation in the OFT's consumer protection work, September 2009

²² www.youronlinechoices.co.uk/good-practice-principles

partners (that is, the web publishers they work with) to provide users with information about how to decline behavioural advertising from that member. The principle of user choice is further enhanced by the provision of a dedicated opt-out page for behavioural advertising at www.youronlinechoices.co.uk/opt-out. This helps users to opt-out of behavioural advertising by directing them to several signatories' own opt-out page and to the opt-out tool provided by the Network Advertisers Initiative (NAI)²³, the US self-regulatory body for behavioural advertising, which is the opt-out method currently used by some of the Principles' signatories.

- **Education:** A company collecting and using online information for behavioural advertising must provide users with clear and simple information (such as an educational online video) about the practice and how users can opt-out of it.

7.3 In addition to these three key principles, the Good Practice Principles include a specific commitment relating to children: no business that collects and uses information for behavioural advertising will create an 'interest segment' intended for the sole purpose of targeting children under the age of 13 years of age.

7.4 The IAB operates an independent certification process to check compliance with its Principles which takes place after twelve months of a member joining. Companies that comply receive a kite mark which can be displayed on the signatory's website. Compliance reviews will take place if a signatory company makes a material change to its service which relates to one of the Principles or if a valid escalated complaint is upheld by the Board and not resolved by the signatory company in the set timeframe.²⁴

²³ The Network Advertising Initiative (NAI) is an initiative by an association of advertising networks, data exchanges, and marketing analytics services providers in the US, some of which also operate in the UK.

²⁴ Companies which have already been certified are AOL, AOL Advertising (Platform A), AudienceScience, Crimtan, Google, MSN/Microsoft Media Network, Specific Media, 24/7 Real Media, Adconion Media Group and Yahoo! SARL. The remaining operational members, nugg.ad and ValueClick Media, are due to be certified in the next 6 months.

- 7.5 The first companies to successfully pass the independent certification process were announced recently²⁵ each receiving the kite mark to display on their websites.



Ability to control

- 7.6 The IAB's existing opt-out mitigates some of the harms described in Section 5 by allowing consumers a degree of control over the use of data that is collected. By opting out, consumers will not receive behaviourally targeted adverts, although data collection may still be undertaken for other legitimate purposes declared in the signatories' privacy policy such as legal enforcement, serving web pages or web analytics).²⁶
- 7.7 In addition, there have been some recent developments which allow further control. During the course of our study, the IAB has addressed some of the concerns surrounding flash cookies and has developed a policy statement which clarifies that no member uses flash cookies (or local shared objects) to collect data for online behavioural advertising purposes. Flash cookies cannot be deleted using browser controls and can restore data contained in deleted cookies.
- 7.8 The IAB is also currently building a dedicated opt out 'tool' for the site which will offer a more user-friendly 'one-button' option. This will be initially be cookie based - by pressing a 'red' button, an opt-out cookie which will be recognised by all signatories to the Good Practice Principles is delivered. The one-button opt-out will be launched in the UK in the near future with a European roll out to follow which will allow consumers to opt out of all businesses collecting and using information for behavioural advertising across Europe. The opt-out will be deleted if a user deletes cookies, although there are plans to develop a persistent opt-out.

²⁵ <http://www.iabuk.net/en/1/certificateofcompliance140410.mxs>

²⁶ Blocking third party cookies through browser controls would stop the collection of data

- 7.9 The OFT welcomes the IAB's attempts to make this more user-friendly by creating a single opt-out button. We also recognise that the use of a persistent cookie may further benefit consumers as they will no longer need to repeat the opt-out process after deleting cookies, although we note that the use of cookies which the user may be unable to delete could create further problems for consumers. We have encouraged the IAB to consider this issue. We also suggest that they take action to ensure that opt-out notices make it clear that the user is only opting out of receiving the advertising and may continue to be tracked.

The OFT welcomes the IAB's commitment to deliver a 'one button' opt-out tool for all its members. We encourage the IAB to put in place this solution as soon as possible and to explore ways in which the tool can be made persistent in a way that maintains users' control over it. We also suggest that the IAB take action to ensure that opt-out notices of their members make it clear that the user is only opting out of receiving the advertising and may continue to be tracked.

- 7.10 It has been suggested that an opt-in system would be preferable to an opt-out, although industry claims that this would make surfing the internet slow and unwieldy. In our view, the debate around opt-in or opt-out of behavioural advertising is better framed in terms of transparency. In other words, the main advantage of an opt-in process is that it may be more transparent to consumers. The efficacy of an opt-out process is much reduced if consumers are not aware of the practice but increasing the transparency of an opt-out process should increase its effectiveness. Our survey confirmed that transparency was a key issue for consumers. The effectiveness of the IAB's transparency requirements is discussed below.

Transparency

- 7.11 The Principles have a commitment to providing clear and unambiguous notice. The implementation of this is left to the discretion of the signatories which can choose to provide this notice in their privacy statements.

- 7.12 Our research showed that 50 per cent of respondents never read privacy policies. Around 40 per cent read them occasionally, and only 10 per cent always read them. We are therefore concerned that simply placing a notice about behavioural advertising, including information on opting out, in a privacy policy is not enough to give consumers the transparency and control needed to mitigate the concerns raised.
- 7.13 We encourage the IAB to discuss ways to improve transparency. We note that in the US there are advanced discussions about an initiative to provide notice of the collection of data for behavioural advertising through the use of a clear link or icon next to the advert itself.²⁷ Wording that is common across all players is being developed. We encourage the IAB to consider whether a similar initiative could be developed in the UK.

The OFT urges the IAB to work with its members and the wider industry to develop clear and transparent notices alongside behavioural adverts with links to information about opting out.

- 7.14 We have considered whether a government-led consumer awareness campaign would prove an effective tool to tackle consumer concerns about online behavioural advertising and targeted prices but believe it is appropriate to see what progress can first be made through self-regulation.

Sensitivity of information collected

- 7.15 The research we have undertaken has shown that consumers have some concerns about the amount of information that is collected. Concerns are likely to be greater if data considered to be sensitive is collected. This may also increase the possibility of receiving inappropriate or embarrassing adverts. On the other hand, it is possible that targeted adverts with responsible information about

²⁷ www.bbb.org/us/behavioral-advertising-principles (pdf)

sensitive topics, such as financial difficulties or cancer charities, could be helpful.

- 7.16 We welcome the specific commitment in the Good Practice Principles relating to children. However, there are other types of data such as information on health or financial matters which could be used to deliver behaviourally targeted adverts. The IAB has recognised that there are valid privacy concerns about creating a segment for online behavioural advertising in some areas because they could be considered sensitive in certain contexts but it is left to individual signatories to make different judgements in their respective approach.
- 7.17 We recommend further consideration and clearer guidelines are given to what would constitute sensitive data and whether specific commitments should be made.

The OFT recommends the IAB gives further consideration and provides clearer guidelines around sensitive information and the use of that data for behavioural advertising.

Coverage and Compliance

- 7.18 The efficacy of self-regulatory regimes depends on its coverage of the market. The Good Practice Principles cover both first party and third party behavioural advertising and, according to the IAB, the majority of the behavioural advertising industry is signed up.
- 7.19 We understand that IAB Europe is looking to develop a new set of self-regulatory principles, which would build up and enhance the UK Good Practice Principles. These would apply right across Europe, enhancing the scope of the IAB's principles. Companies operating out of the US are also covered by the US self regulatory body - the NAI - with some of the signatories to the UK Good Practice Principles currently providing their opt-out facility through the NAI.

- 7.20 We conducted a small scale internet experiment looking at the top 100 internet sites in the UK.²⁸ We found that all ad networks serving ads on these websites were signatories to the Principles (although we could not tell the extent to which the adverts were behaviourally based). On the other hand, we have encountered a number of ad networks engaged in online behavioural advertising and which are not signed up to the Good Practice Principles, although these may be smaller players as they did not appear in our examination of the top 100 sites.
- 7.21 Coverage - and compliance – with self-regulation will be higher when there is a clear incentive for companies to join and comply with the scheme. This incentive often comes from customers of businesses checking for membership of the self-regulatory body.
- 7.22 Advertisers are one group of customers of behavioural advertising. Where a third party is carrying out the behavioural advertising, such as an ad network or a technology company working on behalf of a web publisher, the web publishers are also direct customers. Web publishers and advertisers have an incentive for the third parties to comply with the Good Practice Principles as any detriment suffered by consumers as a result may tarnish their own reputation. If they are aware of the IAB Principles, they may check for membership before engaging with a particular provider and this should act as an incentive for the provider to join and comply with the Principles.
- 7.23 We have, however, been told that knowledge and awareness amongst web publishers and also advertisers themselves of the issues involved in behavioural advertising is limited. This suggests that they will not actively seek out ad networks that are members of the IAB. Thus, while we welcome the IAB's kite mark standards and its independent compliance checks, we believe that the incentive to join and comply with the Principles would be higher if there were greater awareness of the standard amongst web publishers and advertisers.

²⁸ We excluded websites featuring more than once and sites containing adult content.

- 7.24 The sanctions available if a member is found not to be complying, are relatively weak and include retrieval of compliance certificate and kite mark, which will have a limited effect if web publishers do not check for the kite mark in the first place. At their strongest, the sanctions include publication of the complaint and decision in the youronlinechoices.co.uk.
- 7.25 Compliance is further complicated as both members and publishers have combined responsibilities for giving users notice and choice. Although the Good Practice Principles place the commitment and therefore responsibility for compliance with the code on the business collecting and using the data - so the ad network or technology company –the web publisher is required to provide notice and information on how to opt out via a contractual relationship with its network/technology company.
- 7.26 We have found a number of examples where notice and information about how to opt-out of online behavioural advertising at the publisher level is confusing and not easy to understand. The opt-out process can also require navigation through several pages. Increased awareness of responsibilities under the Principles may help remedy this. We note IAB Europe is also developing a new set of self-regulatory principles which would put more onus on publishers.

The OFT recommends taking action to increase awareness of the Good Practice Principles amongst publishers and advertisers seeking to engage in behavioural advertising

- 7.27 Although the Good Practice Principles apply to both first party and third party behavioural advertising, in practice only a small number of members, confined to the big portals like Yahoo or AOL, deliver first party behavioural advertising. Some large first party advertisers are not covered by the code, although they appear to have implemented good transparency and control measures in any case. Smaller web publishers like news groups for example, which undertake first party behavioural advertising, often rely on a technology company to create the interest segments and thus collect the data needed for behavioural advertising. This technology company might be signed up to the Principles and contractually require the publisher to provide

user transparency and notice, but the web publisher itself does not need to provide the opt-out. They only need to provide information about how to opt-out either by referring to browser settings or by providing a link to the party collecting data on its behalf, which in some cases only leads to the company's home page and not to the opt-out page.

- 7.28 Our consumer survey has shown that users tend to feel more positive towards first party behavioural advertising than they do towards third party behavioural advertising, but they still want transparency and control whether for first party or third party behavioural advertising. At present, most first party advertisers appear to offer control and transparency, either through their own measures or through the technology company, although we note that, as with third party advertising, the opt-out process can be unclear. In the future, however, first party advertising may expand and bad practice may emerge. The OFT would welcome debate as to whether the IAB should intensify efforts to ensure membership of the Good Practice Principles includes a larger number of first party behavioural advertisers.
- 7.29 Behavioural retargeting advertising is not included within the current remit of the self-regulation principles, although we understand the IAB is engaged in discussions with some of the leading behavioural retargeting companies. It is argued that data collection levels are lower for retargeting as the computer user is traced across different web pages within a network but is not included in an interest segment. In some cases the ad network acts as a technical intermediary to deliver the advert but it has not been given the right by the web publisher to use the data collected via the cookie to create an interest segment or to trace the user with its own cookie.
- 7.30 Whilst we note this difference, retargeting still involves tracking consumers, with the aim of serving them a targeted advert. As such, many of the same concerns identified in Section 5 apply, especially in relation to inappropriate targeting. More work is needed to support and promote good practice in behavioural retargeting. We encourage the IAB to consider widening the code to include behavioural retargeting.

7.31 Advertising on social networking sites is also not covered by the self-regulatory principles. Facebook, for example, allows advertisers to deliver highly targeted ad campaigns based on demographic data provided by their users which can be combined with key words in users' pages to identify the right audiences. Facebook believe the advertising they provide is contextual. We welcome further debate as to whether it would be desirable for the same type of guidelines to apply to advertising which uses content to target adverts in social networking sites, as it does to online behavioural advertising.

The OFT welcome debate about expanding the coverage to include more first party advertisers, retargeting companies and social networking sites

Data Security

7.32 One of the areas of concerns for consumers is the possibility that data may be used for purposes other than serving targeted advertising. Our consumer research has shown that people are concerned about how the data is used, shared and protected with nearly 60 per cent worried that it could be used for other purposes than advertising. The longer data is held, the more scope there is for such harm to take place.

7.33 The Principles do not provide for a limited period of time for which data can be held. Many of the products for which behavioural advertising is used, such as holidays, are likely to be of interest to a user for a short space of time. We therefore do not believe it is appropriate to hold data used for behavioural advertising indefinitely.

7.34 We are mindful of the different business needs which members may have in relation to data storage and that a 'one size fit all' approach may not be appropriate. For example some members are only ad networks whilst others are also publishers and providers of other services such as content or email accounts. This type of member may require data to be held for longer.

The OFT welcomes debate as to whether the Good Practice Principles should include a commitment to maximum length of data storage for the purpose of behavioural advertising

Non-Industry Involvement

- 7.35 Confidence in a self-regulatory regime is likely to be significantly enhanced where independent non-industry stakeholders are involved and have influence.
- 7.36 The IAB's complaints system is handled by the signatories themselves. The complaints-handling process includes an escalation process whereby, if a user's complaint is not dealt with by the relevant business or within a certain timeframe (20 working days on receipt of the complaint), the user can refer it to an industry board. The board is made up of those businesses complying with the Principles (the relevant business does not have a vote in the Board's findings). If the Board upholds the user's complaint, the relevant business will be given the opportunity to redress the matter by presenting the Board with a proposal to redress the issue. If the matter is not resolved with three months it will be treated as a violation of the Good Practice Principles and the compliance certificate will be retrieved and the adjudication published on www.youronlinechoices.co.uk.
- 7.37 We believe that the procedures will only be credible to consumers and fair to members if there is some form of independent scrutiny or involvement. To be independent, the person must have no present or past association, either directly or indirectly with the [sector](#). Credibility will also be enhanced if the outcomes of any investigations into breaches are publicised. If a consumer complains that a member has not complied with the Principles, the consumer should be kept informed about the outcome of their complaint. It is not acceptable to refuse to give information on the grounds that their proceedings are confidential.
- 7.38 The IAB have indicated that they have sought to include non-industry involvement and an independent element of review through the certification process for compliance with the Principles. Whilst this is welcomed, it does not address the lack of opportunity for non-industry, independent stakeholders to be involved and influence other elements of self-regulation, in particular the handling of complaints.

The OFT recommends the inclusion of non-industry, independent stakeholders in the industry board which deals with complaints

8 REGULATION

Summary

Regulatory protection for behavioural advertising and targeted prices is provided by the Data Protection Act 1998 (DPA) and associated codes of good practice issued by the Information Commissioner such as the forthcoming Code on Personal Information Online and the Privacy and Electronic Communications (EC Directive) Regulations 2003 (the Privacy Regulations). In addition, the Consumer Protection from Unfair Trading Regulations 2008 (CPRs) is also likely apply to behavioural advertising and targeted prices.

Under the Privacy Regulations, it is a legal requirement for firms to inform consumers when a tracking system collects information about them and to give them the opportunity to refuse their continued use. In some cases, it is acceptable to put the information in a privacy policy and allow consumers to opt-out but in others, such as behavioural advertising based on deep packet inspection techniques, this is not sufficient. The ICO is also proposing in their forthcoming Code on Personal Information Online that information about browsing behaviour should generally be treated as though it were personal data and so subject to the DPA. Whilst both behavioural advertising and targeted prices would be covered, we encourage the ICO to intensify its efforts to ensure the fair collection of information in behavioural advertising and targeted pricing contexts, including formulating a clearer view of when consent is necessary and where notice to individuals suffices. We also recommend the ICO encourages the industry to find much better ways of explaining complex online information collection and analysis to consumers.

The CPRs are likely to apply to both online behavioural advertising and targeted prices in a number of ways, in particular:

- Targeting advertisements on the basis of browsing behaviour may breach the CPRs if consumers are not clearly informed about the practice and it causes them to take a different transactional decision (e.g. not view a website). Our research suggests that, in general terms, this may be unlikely at present but each case must be considered on its own facts.

- Consumer opposition to targeting prices on the basis of browsing behaviour, and to the monitoring of consumers' internet traffic data through an ISP to provide targeted advertising, is very strong. In these circumstances, failure by businesses engaging in such practices to clearly inform consumers about them, for example by way of a meaningful opt-in, may breach the CPRs and lead to potential enforcement action.

The OFT proposes to establish a Memorandum of Understanding with the ICO establishing in which circumstances each would act. This will increase effectiveness of enforcement which is an important fall-back if self-regulation were to fail or if there were concerns about practices which fell outside its scope.

Introduction

- 8.1 Relevant regulation includes the Data Protection Act 1998 (DPA) and associated codes of good practice issued by the Information Commissioner such as the forthcoming Code on Personal Information Online (draft PIO Code) and the Privacy and Electronic Communications (EC Directive) Regulations 2003 (the Privacy Regulations). In addition, the Consumer Protection from Unfair Trading Regulations 2008 (CPRs) may also apply to behavioural advertising and targeted prices. A detailed consideration of the legislation is provided in Annexe C.

Data Protection and Privacy

- 8.2 The Information Commissioner's Office (ICO) is responsible for ensuring compliance with the requirements of the DPA and the Privacy Regulations and with promoting best practice concerning the collection, use and retention of personal information.

Privacy Regulations

- 8.3 Under the Privacy Regulations, website operators must clearly and comprehensively inform consumers about the purposes of storing a cookie or other tracking system on the user's computer and must

give them the opportunity to refuse their continued use.²⁹ This includes first and third party cookies used for online behavioural advertising or price targeting purposes. It applies regardless of the type of data collected.

- 8.4 The ICO states that, generally, cookies may be set on first visiting a site without obtaining prior consent provided that users are given a clear choice as to whether or not to accept the continued storage of data. This may be included in a clearly signposted privacy policy provided the information itself is suitably prominent and accessible.³⁰ In the case of behavioural advertising based on deep packet inspection techniques, however, the ICO considers that active opt-in is required to indicate consent.³¹
- 8.5 The Privacy Regulations do not define who is responsible for providing the information outlined above. In the case of cookies set by the website being visited, the responsibility clearly lies with the website publisher. In the case of third party cookies, including those used for behavioural advertising or price targeting, ICO guidance is that responsibility is placed both on the website itself to alert users to the fact that a third party is using cookies for that purpose, and

²⁹ Regulation 6(1). There are limited exceptions. This information does not need to be provided for a cookie which (broadly) has the sole purpose of facilitating or carrying out electronic communication or where it is strictly necessary to provide a service to the user which the user has requested.

³⁰ ICO Guidance on the Privacy and Electronic Communications (EC Directive) Regulations Part 2: Security, confidentiality, traffic and location data (Privacy Regulations Guidance) at page 5

³¹ This follows the trials by BT of Phorm's behavioural advertising technology which lead to the European Commission launching legal proceedings against the UK government for its failure properly to implement European Directives regarding privacy and data protection. See <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1626>. The EU Directive on privacy and electronic communications requires EU Member States to ensure confidentiality of the communications and related traffic data by prohibiting unlawful interception and surveillance unless the users concerned have consented to this (Article 5(1) of [Directive 2002/58/EC](#)). The EU Data Protection Directive specifies that user consent must be 'freely given specific and informed' (Article 2(h) of [Directive 95/46/EC](#)).

also on the third party to provide the user with the relevant information required under the Privacy Regulations.³²

- 8.6 The Privacy Regulations are also not prescriptive about the mechanism by which an individual should be able to refuse the use of such technologies. The ICO takes the view that, whatever method is used, it is important that it is uncomplicated, easy to understand and accessible to all.³³ Its guidance suggests that firms can either make their own 'switch-off' facilities available or explain how consumers can use browser facilities.³⁴

Amendments to the Privacy Regulations

- 8.7 The Privacy Regulations implement a European Directive.³⁵ Recent changes have been made to the Directive which Member States are expected to implement by April 2011.
- 8.8 A key amendment is that the storing of information on a consumer's computer (such as a cookie) and any subsequent access to this is only allowed on the condition that the consumer has given his/her prior consent (having been provided with clear and comprehensive information about the purposes of the processing).³⁶
- 8.9 This raises questions as to the most appropriate and practical method of ensuring that the requirements of the Directive are met. The Recital to the Directive acknowledges that, where it is technically possible and effective, the user's consent may be expressed by using the appropriate settings of a browser or other application.³⁷ Concerns

³² Privacy Regulations Guidance, page 6.

³³ Privacy Regulations Guidance, Page 6

³⁴ Privacy Regulations Guidance at page 6.

³⁵ Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector

³⁶ Article 5(3) of the Privacy and Electronic Communications Directive

³⁷ Recital 66.

have been raised, however, that default settings are not necessarily reliable indicators that consumers have been informed of, or have given consent to, the storage of cookies on their computers.³⁸ It is likely that there will be further clarification over the course of the year.

Data Protection Act

- 8.10 The ICO also enforces the DPA which requires that personal data must be processed in accordance with data protection principles.³⁹ The ICO has recently consulted on a draft Code of Practice on Personal Information Online which seeks to provide organisations with good practice advice on how comply with the DPA online.
- 8.11 The draft PIO code suggests that browsing behaviour should generally be treated as though it were personal data. It makes the following key points:
- Individuals should be provided with a clear and simple explanation as far as it is possible of how browsing information is collected and analysed and the result of this – for example being targeted with an advertisement for a particular product. The explanation should be given due prominence and be expressed in terms most visitors can understand.⁴⁰
 - The ICO has advised that there is no need to actively communicate a privacy notice where, among other things, the collection and use of information is something a reasonable person is likely to anticipate and would agree to if asked and has

³⁸ See the Opinion on the amendments to the Directive (Opinion 1/2009 on the proposals amending Directive 2002/58/EC on privacy and electronic communications adopted on 10 February 2009.

³⁹ Personal data broadly encompasses any information which relates to a living individual who can be identified from that data, for example (in the real world) a name or address. In an online environment, personal data may include information by which the behaviour of one living individual may be distinguished from that of another, even in the absence of any real world identifiers.

⁴⁰ Draft PIO Code at page 11. It refers to the ICO's Privacy Notices Code of Practice.

no unforeseen consequences for the individual concerned. Conversely, the need is strongest where the intended use of the information is unexpected or objectionable or the information will unexpectedly be shared.

- Data that is collected should be handled in accordance with data protection principles, including that data should not be excessive, should be processed fairly, should be kept no longer than necessary and should be kept secure.⁴¹
- The draft code states it is good practice to give individuals a simple means of disabling the targeting and profiling process although it is not prescriptive about how this should be done.⁴²

8.12 The guidance explicitly refers to the process involved in behavioural advertising whereby online activity is analysed with a view to building a 'profile' which is allocated a 'score'. It suggests that the analysis and the score itself should be subject to data protection law and the activities carried out in compliance with the DPA. The draft code notes the potentially different responsibilities of website publishers and third parties involved in behavioural advertising. In some cases the publisher will retain overall responsibility for the processing of personal data, the third party acting purely on the publisher's instructions. In others, the third party will retain control over how the personal data is processed, meaning it will have its own data protection responsibilities. Where responsibilities overlap, it is good practice for all the organisations involved to work together to establish their respective responsibilities. In particular, they should determine who is the data controller, or controllers, in respect of any personal data being processed.⁴³

8.13 Although the draft code does not specifically refer to the collection of data for the purpose of targeting prices, we have raised this with the ICO and understand the latest revisions make clear that if, for

⁴¹Draft PIO Code at Page 7.

⁴² Draft PIO Code at Page 11

⁴³ Draft PIO Code at Page 7.

example, personal data is going to be used to offer targeted pricing depending on their previous online behaviour, then this should be explained. This also covers geo-targeting based on the analysis of an individual's IP address or postcode data entered by a consumer, which would also constitute the processing of personal data and be subject to the DPA.

- 8.14 Our research has found that using personal data in ways that could increase prices to consumers is unexpected and objectionable. Consumers are much less likely to expect targeted prices and may feel significantly more negative about it than behavioural advertising and therefore increased transparency should be expected. This is because, as the ICO recommends, the nature of consent should depend on the form of the practice.
- 8.15 We encourage the ICO to consider this when finalising the Code and to intensify its efforts to ensure the fair collection of information in behavioural advertising and targeted pricing contexts, including formulating a clearer view of when consent is necessary and where notice to individuals suffices. We also recommend the ICO encourages the industry to find much better ways of explaining complex online information collection and analysis to consumers.

CPRs

- 8.16 The CPRs prohibit unfair commercial practices which distort consumers' transactional decisions.
- 8.17 Both 'commercial practice' and 'transactional decision' are given a wide definition. In the context of an online environment, the OFT considers that 'transactional decision' may include the decision to visit a trader's site in the first place, as opposed to that of its competitors, and the decision to click through to another page on a site to view further content. 'Commercial practices' may include:
- behavioural advertising, both first and third party as well as retargeting
 - targeted pricing, including geo-targeted pricing
 - explanations provided by firms relating to the above practices.

- 8.18 The prohibitions on unfair commercial practices refer to their effect, or likely effect, on the average consumer.⁴⁴ In an online environment, depending on the particular circumstances of the case, the average consumer would not be necessarily expected to be technically proficient in understanding how the internet works, including cookies and other tracking technologies, and how to manage their use, for example, in providing behavioural advertising or targeted pricing. The effect on the average consumer may also be different when a commercial practice reaches consumers who are vulnerable because of infirmity, age or credulity or where the practice is targeted at a particular group of consumers.
- 8.19 Our research suggest that, at present, it is not clear whether behavioural advertising would affect the decisions of the majority of consumers. It highlighted some concerns about behavioural advertising but it was not clear that these were significant enough to change their behaviour. In future, however, techniques which may evolve in the future which consumers' clearly find more objectionable and may seek to avoid.
- 8.20 The position is different where consumers' internet traffic data through an ISP is monitored to provide targeted advertising or if web browsing data is used to target prices. Research suggests that consumer opposition to such practices taking place without their knowledge is very strong. These practices may have much greater scope to change the behaviour of an average consumer.
- 8.21 Below we set out in more detail how the CPRs may apply to behavioural advertising and targeted prices and the circumstances in which a breach of the CPRs may occur. We consider three areas of the CPRs: the general prohibitions, misleading actions and misleading omissions.

General prohibition

- 8.22 The CPRs creates a general prohibition on unfair business to consumer commercial practices. To breach the prohibition the

⁴⁴ Regulation 2(2)(5) of the CPRs

commercial practice must contravene the requirements of 'professional diligence'.⁴⁵ Broadly, conduct which falls below the acceptable standard that a reasonable person would expect from an honest trader in a particular industry or sector is likely to breach the requirement of professional diligence. It must also appreciably impair the average consumer's ability to make an informed decision and such that the average consumer is thereby caused to take a different transactional decision.

8.23 Table 8.1 sets out an illustrative example of conduct which may, in the OFT's view, amount to breach of the general prohibition depending on the particular circumstances of the case.

Table 8.1: Practices which may breach the general prohibition

Example

A failure by a trader which sets cookies on a consumer's browser but fails to comply with the information requirements under the Privacy Regulations is, in the view of the OFT, likely to breach the requirements of professional diligence. If the cookie is being utilised to collect or store information for the purposes of adapting the price displayed, research suggests that consumers, in general, object to such practices. The average consumer may not have bought from, or visited, the site had they known about it, so the practice could materially distort the economic behaviour of the average consumer and cause him to take a different transactional decision.

Misleading actions

8.24 In the OFT's view, false or misleading information about the use of tracking technologies utilised during a consumer's visits to a website, and which causes or is likely to cause the average consumer to take a different transactional decision, are likely to constitute a misleading action and therefore a breach of Regulation 5 CPRs.

⁴⁵ 'Professional diligence' is defined in Regulation 2(1) of the CPRs.

8.25 Misleading actions may include misleading statements about the use and purpose of tracking technologies, how to opt out of behavioural advertising or targeted prices, how long data is retained for and the price of a product. Table 8.2 sets out an example for illustrative purposes.

Table 8.2: Practices which may be misleading actions

Example
<p>A trader who includes first and third party advertising cookies for the purpose of targeted advertising and/or pricing on its site may engage in an unfair commercial practice if he provides false or deceptive information about:</p> <ul style="list-style-type: none">• the existence and deployment of the tracking technologies itself and the description of their function (for example stating they are for statistical and anonymous analysis only)• the motives for the commercial practice• the duration of retention of personal information <p>The CPRs will be infringed if the commercial practice causes or is likely to cause the average consumer to take a different transactional decision, such as deciding which web pages to browse, taking into account the factual context and all of its features and circumstances.</p>

Misleading omissions

8.26 A failure to give the average consumer the information he/she needs to make an informed choice (in relation to a product), such as where the information is omitted, or hidden or provided in an unclear, unintelligible, ambiguous or untimely manner and the average consumer takes, or is likely to take, a different transactional decision as a result, would constitute a breach of Regulation 6 of the CPRs. Table 8.3 illustrates how this might apply to behavioural advertising.

Table 8.3: Practices which may be misleading omissions

Example 1

A failure by an ISP to notify a consumer that deep packet inspection is being utilised to collect or store information for behavioural advertising will constitute a misleading omission if the practice is likely to cause consumers to take a different transactional decision. Such a transactional decision could be the decision to refrain from signing up with an ISP that employed behavioural advertising via deep packet inspection.

Example 2

A firm utilises personal information about an individual obtained from their visit to a site (including postcode or other locational information) or related sites to provide personalised pricing but provides no explanation or hides it in a privacy statement. Such targeted pricing might take the form of advertising a higher priced product to particular individuals based on their web browsing behaviour. Alternatively, it might take the form of restricting the choice available of products advertised to particular individuals such as only showing the three most expensive items. This would breach the CPRs if consumers would have taken a different decision, such as visiting or buying from other websites, had they known about it.

Aggressive practices

- 8.27 A commercial practice which significantly impairs the average consumer's freedom of choice or conduct through the use (among other things) of undue influence constitutes an aggressive practice where this causes the average consumer to take a different transactional decision.
- 8.28 Undue influence includes the exploitation of a position of power to apply pressure in a way which significantly limits the consumer's ability to make an informed decision.⁴⁶ Table 8.4 illustrates how this might apply to behavioural advertising.

⁴⁶ Regulation 7(3).

Example

A trader provides information to consumers about the use of cookies on the site and how to use his browser settings to delete cookies in accordance with the Privacy Regulations. The trader, however, employs alternative technologies such as flash cookies (which may not be mentioned anywhere on the site) which has the effect that, even though the consumer may delete his cookies, these are regenerated when he next opens the browser.

This may constitute an aggressive practice under the CPRs if it causes or is likely to cause the average consumer to take a transactional decision he would not otherwise have taken, such as deciding not to visit that website.

Other Regulations

- 8.29 There are a number of other regulations which may have relevance to behavioural advertising and targeted pricing.
- 8.30 The tracking of consumers across different websites may involve information exchange between competing firms. For example, firms could exchange information on whether or not a particular customer had viewed their website. Information exchange which has the object or effect of restricting competition may breach competition law.
- 8.31 Competition law also stipulates that, where a company is dominant, differential pricing may constitute an abuse of that dominant position, for example through discriminatory pricing or excessive pricing. Therefore it is possible that dominant firms that price discriminate via price targeting could infringe competition law. The European Commission has intervened in cases involving this type of issue although the UK has rarely intervened in this type of case in the past.
- 8.32 Further, under the Provision of Services Regulation 2009 (which implement the Services Directive), online retailers are prohibited from discriminating against consumers (for example in terms of prices charged or different terms and conditions based on their nationality or place of residence) unless this can be directly justified by objective

criteria.⁴⁷ This may be applied to online retailers which use geo-targeting to change the product range or prices.

Summary

8.33 Our view of how the main regulatory powers in relation to consumer protection legislation apply to online behavioural advertising and targeted prices is summarised below.

⁴⁷ Regulation 30

Table 8.4: Summary of consumer protection legislation

Privacy Regulation	<ul style="list-style-type: none">• Web publishers must give clear and comprehensive information about first and third party cookies for behavioural advertising/targeted prices and give an opportunity to refuse them• Advertisers placing third party cookies on web publisher's sites have similar• No need to opt-in to accept cookies...but changes at EU level may impact on this• DPI based behavioural advertising requires opt-in
Data Protection Act & draft CoP on Personal Information Online	<ul style="list-style-type: none">• Profiles based on online activity can be, and should be treated as, personal data<ul style="list-style-type: none">• Data to be kept secured• Protected from inappropriate disclosures• Consumers need to be informed about the data collection• Web publishers should make consumers aware if third parties collect personal data
Consumer Protection Regulations	<ul style="list-style-type: none">• Online activity can be a transactional decision• CPRs can be applied to both behavioural advertising and targeted prices• It is a potentially unfair commercial practice not to inform consumers about behavioural advertising and targeted pricing• Online behavioural advertising in its current format seems unlikely significantly to alter consumer behaviour• Targeted pricing and DPI based behavioural advertising likely to change consumer behaviour

9 SUMMARY AND NEXT STEPS

9.1 In previous chapters we have reviewed and analysed online targeting of advertising and prices. Through research, we have explored the concerns of consumers and asked them whether these concerns are likely to restrict their use of online services. We have looked at the technologies that are being developed, how they are being deployed at present and how they might be deployed in the future. We have evaluated existing regulation, including how existing consumer protection legislation applies, and the emerging self-regulation. We have considered whether the protection afforded by these means is adequate to address consumer concerns.

Behavioural Advertising

9.2 Behavioural advertising has benefits to consumers. Improving the targeting of advertising decreases suppliers' advertising costs and increases revenues for web-publishers. This increased efficiency feeds through to reduced costs for consumers for example by enabling free access to content. Consumers are also less likely to receive adverts that are not of interest to them.

9.3 On the other hand, a number of objections to behavioural advertising have been raised. These are centred on privacy issues, concerns about the possibility for misuse of the browsing data collected and fears that behavioural advertising might result in inappropriate or embarrassing advertising being shown.

9.4 These concerns are potentially mitigated through market forces, by self regulation and by regulation enforced by the ICO and the OFT. We have evaluated how each of these addresses consumer harm by increasing transparency or consumer control and by limiting the collection of information. We have also looked at the proportion of the market that they cover.

- 9.5 The market is providing a range of technological solutions for consumers. Browser controls are already available on most users' computers. They can be set to alert consumers when a cookie is being installed. Users can also automatically block certain types of cookies and can delete cookies already installed. Many also allow private browsing modes. Specialist software designed to address wider fears about internet security may also help address concerns about behavioural advertising.
- 9.6 These tools go some way to allowing consumers control over behavioural advertising, but awareness of these tools is currently low and browser controls, in particular, can be difficult to use, although they are becoming more use friendly. Browsers may also be ineffective in managing and controlling first party advertising, as first party cookies are also used for other purposes such as customising services and rejecting these cookies may make certain websites unworkable. In addition, there are some techniques, such as flash cookies or web beacons, which may be used for behavioural advertising, which cannot be controlled using a browser. At present, therefore, technological tools do not fully solve the issues around behavioural advertising although the technology in this area is developing fast.
- 9.7 In a few cases, firms themselves have taken steps to increase transparency and consumer control over behavioural advertising. For example, behaviourally targeted adverts served by Google include a label next to them which tells the internet user who has served the adverts and how to opt-out. Yahoo is developing a similar policy but not all firms have taken such measures.
- 9.8 Further protection is provided by the self-regulation introduced by the IAB. Its Good Practice Principles require firms to provide information about the practices and for consumers to be able to opt-out of receiving behavioural adverts (although they may still be tracked for other purposes). They also prohibit creating an 'interest segment' intended for the sole purpose of targeting children under 13 years of age. The IAB monitors compliance with the principles, and those members which are certified to comply are awarded a kite market.

- 9.9 The IAB's principles are still evolving – they are barely a year old. During the course of this study, they have been strengthened by the introduction of a policy statement which states that their members do not use 'flash cookies', which cannot be deleted by browsers, for behavioural advertising. The IAB is also currently developing a 'one button' opt-out tool which would apply to all members, making user control easier. Current opt-out measures also create problems as the 'opt-out' is reversed if consumers wipe their cookies. The IAB is considering using a persistent cookie to overcome this problem. We note that the use of cookies which cannot be wiped may in itself be problematic, but encourage the IAB to explore ways in which the tool can be made persistent in a way that maintain users' control over it.
- 9.10 These self-regulatory measures significantly improve on market solutions by maintaining standards of information provision and control across a large proportion of the industry. We believe, however, that further improvements could be made. One key area for improvement for the Good Practice Principles is transparency. At present, the Principles permit information about the practice, including how to opt-out, to be included in privacy policies which our research suggests are not generally read – 50 per cent of consumers never read privacy policies, around 40 percent read them occasionally and only 10 per cent always read them. We therefore encourage the IAB to enhance awareness by developing clear and notices alongside behavioural adverts. In addition, we have found that even where information is available, it can be hard to opt-out as it requires navigating across a number of pages. We encourage the IAB to work with publishers to make opt-out easier. We also suggest that they take action to ensure that opt-out notices make it clear that the user is only opting out of receiving the advertising and may continue to be tracked.
- 9.11 We have also considered the IAB's coverage and the compliance with its principles. The IAB has good coverage of providers of third party behavioural advertising such as ad networks or technology companies. We have however been told that awareness of the code amongst publishers is not high. If web publishers which use ad networks and technology companies do not look for membership of the IAB, it reduces

the incentives for ad networks and technology companies to comply with the scheme. We encourage the IAB to increase awareness of the Good Practice Principles amongst publishers and advertisers seeking to engage in behavioral advertising.

- 9.12 Coverage of first party behavioural advertisers is more limited and excludes some large first party advertisers although these companies still appear to have good measures in place to ensure transparency and control. The smaller companies tend to use technology companies to collect data and deliver the advertising and most technologies companies are signed up to the Principles. Coverage also excludes re-targeting and advertising on social networking sites. We also encourage debate as to whether retargeting and social networks would also benefit from self-regulation. Finally, we recommend there is some independent presence on the board dealing with complaints.

Recommendations for self-regulation

- **Increase transparency to consumers by developing 'clear ad' notices alongside behavioural adverts including information about opting out.**
- **IAB to give further consideration and provide clearer guidelines around sensitive information and the use of that data for behavioural advertising.**
- **Increase awareness of the Good Practice Principles amongst publishers and advertisers seeking to engage in behavioural advertising.**
- **Consider extending coverage of first party behavioural advertisers and whether retargeting companies and social networking sites should be included.**
- **Consider whether the Good Practice Principles should include a commitment to maximum length of data storage for the purpose of behavioural advertising.**
- **Include non-industry, independent stakeholders in the Board which deals with complaints.**

9.13 We believe that it is proportionate to focus on improving and supporting self-regulation but that regulation provides an important fall-back if self-regulation were to fail or if there were concerns about practices which fell outside its scope. We discussed how regulatory powers held by the ICO and the OFT could be applied to behavioural advertising.

9.14 Under the Privacy Regulations, the ICO requires firms to inform consumers when a tracking system collects information about them and to give them the opportunity to refuse their continued use. The exact form that the information and consent takes varies according to the situation. In some cases, it is acceptable to put the information in a privacy policy and allow consumers to opt-out but in others, such as

behavioural advertising based on deep packet inspection techniques, this is not sufficient. The ICO also enforces the Data Protection Act which provides for the regulation of the collection and use of personal data and in a recent consultation the ICO proposed that information about browsing behaviour should generally be treated as though it were personal data. This means that firms would have to inform consumers about such data collection, keep the data secure and must only use it in a way that is fair to consumers.

- 9.15 We also believe that there may be scope for Consumer Protection from Unfair Trading Regulations (CPRs) to be applied in this area. The CPRs may be breached if a consumer alters a transactional decision as a result of misinformation or lack of information. The OFT interprets transactional decision widely and believes it encompasses, for example, the decision to view a website. So not informing a consumer about the collection of information about their browsing behaviour could breach the CPRs if that knowledge would have altered their behaviour, perhaps by dissuading them from visiting that website. At present, with the exception of behavioural advertising via DPI, it is not clear that information on behavioural advertising will result in consumers changing their behaviour. Current practices may not, therefore, breach the CPRs, although each case would have to be assessed according to facts, particularly if practices develop further in future.

We will keep a watching brief on the market as technology develops to see whether online behavioural advertising may in the future be likely to change a consumer's transactional decision.

Targeted Pricing

- 9.16 We have also considered targeted pricing practices. Online price targeting might happen in different ways. Our main focus has been on targeting based on previous online purchases or browsing behaviour.

This could result in consumers being offered vouchers or discounts or targeted with adverts containing special offers. It has also been suggested consumers that are tracked may face increased prices or a restricted product range. The targeting could take subtle forms for example offering new customers reduced prices but retracting those offers from consumers who are identified as having already visited, and/or purchased from, a site. The OFT does not have any information about any firms increasing prices to consumers on the basis of their online behaviour at the moment.

- 9.17 We have also considered 'geo-targeting' which the stakeholders we spoke to said was more likely to evolve. This could be based either on the consumer's IP address or on location data entered by the consumer.
- 9.18 We have considered the benefit and harm to consumers that could emerge if the use of targeted prices became widespread. It is a well-established economic principle that price discrimination has ambiguous effects on consumer welfare and the OFT typically presumes against restrictions on price discrimination. In the online environment, however, there are additional concerns. Price targeting may be much less transparent which may mean that consumers do not shop around sufficiently or find it harder to compare prices. The use of online tracking also raises the same privacy objections as targeted advertising. Consumers have strong objections to such practices and they have the potential to undermine trust in the emerging online market place.
- 9.19 The fear of a consumer backlash, in itself, means that firms are reluctant to engage in targeted pricing to preserve their own reputations but market forces also provide some constraint beyond this. First, the potential to target some customers with high prices will also be constrained by competition from other firms for these customers' business. This constraint will be less effective if the targeted consumers are those who are less likely to switch and shop around. So, while competition for business within a postcode area may inhibit geo-targeting, competition may be less effective in reducing prices targeted at those that do not shop around. Differential prices may also be

constrained by the potential for business models to evolve which exploit the existence of the price difference.

- 9.20 There are also some technological solutions. For example, customers can avoid targeting on the basis of browsing behaviour by wiping cookies, and can use proxy servers to avoid geo-targeting on the basis of IP address. Attempts to target on the basis of information provided by consumers may be of limited use as consumers who realise they are being targeted in this way may provide false information to get a lower price. Firms would have to find ways of inhibiting this behaviour – for example, there may be some requirement for the postcode entered to match that their payment card details. These will, of course, only be of use if consumers are aware of such practices.
- 9.21 The Data Protection Act also provides a regulatory solution and the ICO takes the view that information indicative of a person’s web browsing behaviour should be treated as personal information and as such consumers must be informed that information about them is being collected and used to support price targeting. The ICO’s Code of Practice on Personal Information On-line suggests that the form that consent should take will depend on the nature of the practice. Our research has found that using personal information in ways that could increase prices to consumers is unexpected and objectionable. We encourage the ICO to consider this when finalising the Code and to intensify its efforts to ensure the fair collection of information for targeted prices, including formulating a clearer view on when consent is necessary and where notice to individuals suffice. Geo-targeting based on the analysis of an individual’s IP address or postcode data entered by a consumer would also constitute the processing of personal data and be subject to the DPA.
- 9.22 The OFT also believes that the CPRs could apply to the use of browsing behaviour in ways that could increase prices to a consumer. Consumer opposition to such practices is very strong, so it is highly likely that the knowledge that data on past online history was being used to target prices would change choices. If so, failing to inform consumers about targeted prices may breach the CPRs. We therefore believe that pricing

on the basis of browsing behaviour may be breach the CPRs if consumers are not clearly informed about the practice. This also covers geo-targeting of prices.

- 9.23 Since online price targeting is a possibility but not yet a reality in the UK - except in the form of largely innocuous discount offers - this is an area where more debate and discussion seems likely to be particularly productive.

- **We suggest the ICO includes targeted prices using web browsing data in their Code of Practice and that it formulates a clearer view on when consent is necessary and where notice to individuals suffice.**
- **Under the CPRs, consumers must be actively informed about factors that could change their transactional decisions. We would expect this information to be clearly and prominently displayed. Small print in a privacy policy is not likely to be sufficient. Failure to do this may breach the CPRs.**

Next steps

- 9.24 Online targeting is an evolving area. The behavioural advertising market is changing fast, as are the technological solutions that allow consumers control over it. Self-regulation has only recently been introduced into the area and is still evolving with several developments taking place even during the time it took to complete this short study. Online targeted pricing is not undertaken to any significant extent, with the exception of targeted discounts which seem largely innocuous, but there has been discussion of such practices developing in future.
- 9.25 Against this backdrop, we have set out recommendations for further developing self-regulation for behavioural advertising and have suggested how the ICO's and OFT's regulatory powers might apply to both targeted pricing and behavioural advertising. We propose to

establish a Memorandum of Understanding with the ICO establishing in which circumstances each regulator would act if serious concerns in either of these areas arise.

- 9.26 In the meantime, we invite further debate on these issues and propose to update our thoughts in line with these comments and market developments. We intend to hold a round table event to discuss this report in June 2010, and commit to revisiting these matters in line with market developments.