

# Addressable Advertising

---

## An inquiry into targeting individuals using RFID

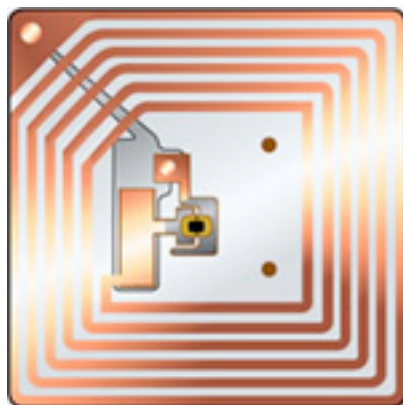
Dean Donaldson [4177299]

6/12/2010

### Phase 3: Future Developments and Opportunities

#### Unit 5: Major Project: Production, Validation & Defence (CMP A5)

Tutor: Richard Berger, CEMP Learning & Teaching Fellow, Bournemouth Media School



A philosophical and ethical investigation and analysis into the rise of Radio Frequency Identification (RFID) and specifically its uses within an advertising context in order to target individuals with tailored, timely and relevant brand messages across the full media spectrum. This document will investigate the socio-political dilemma and investigate intervention in light of privacy concerns.

## Table of Contents

Introduction.....	3
The historical context .....	4
The current iteration .....	5
The Intimate Sphere .....	7
So what is RFID? .....	9
Digital marketing with RFID .....	11
Bringing it home .....	13
Perception drift.....	14
ID Rape.....	18
Evaluating the debate.....	19
Paternalistic power.....	20
Addressing consumer fears .....	23
Addressing addressability .....	24
Towards a transparent consumer model.....	26
Reflection on the proposal .....	29
Conclusion .....	30
Appendix.....	32
Email interviews – 17th Nov 2009 .....	32
Video interviews – 1st August 2010 .....	35
Survey Online – 13th Nov 2010 .....	35
Bibliography.....	50

## Introduction

*The fire that warms can also burn; 'Better a small fire that warms you than a big one that burns you.'*  
French Proverb.

We are moving into an era of targeted advertising – delivering the right message at the right time. The logical conclusion of all targeted advertising is that technology will allow the collation of unparalleled levels of data of consumer habits both in and out of the home and bring both a total transparency into consumer life cycles. It is about tying an individual to data collated on their previous consumer behaviours and/or purchases habits and then delivering a sequenced message, taking the nature of predictive 'suggestions' used on web sites like Amazon and iTunes and moving this concept into online display advertising. The utopia of such addressable advertising is taking this even further across an entire range of connected electronic displays in the home, shopping mall or on the street. Given sufficient infrastructure, one can determine in real-time where a consumer is and then deliver the correctly sequenced message to any given screen they happen to be in front of.

*'A smiling Gap employee appears on a giant flat-screen monitor just inside the store, greeting customers as they walk in. "Good afternoon, Mr. Yakamoto," she says, loudly and cheerily. "How did you like that three-pack of tank tops you bought last time you were in?"'*<sup>1</sup>

The proximity of a person to such a device – from TV to Out of Home (OOH) – will not be determined just by line of sight readers such as retina scans, as shown in the film starring Tom Cruise, but rather by utilising sensor-based Near Field Communications (NFC) and specifically, Radio Frequency Identification (RFID), which is been trialled in a number of locations globally. This has been afforded as a result of a rise of mobile devices from key-fobs and ID/credit cards to phones and PDA's adopting RFID capabilities. A uniquely identifying RFID code will inevitably become the next-generation *cookie* for trans-media advertising. This most advanced form of targeting will create maximum efficiency within advertising spend by reducing wastage across all media disciplines.

As we move from scientific reasoning for technical advancement we discover that we touch socio-political nerves of the masses. Though advertising needs to become more efficient, there is a potential huge consumer backlash over fear of invasion of privacy. There are real concerns over what is 'private'; and in a world where the 'consumer is in control' sneaky, underhand techniques are not acceptable from a human standpoint, despite technological advances. It is this ethical and moral dilemma specifically that my research is focussed in on. In terms of researching such questions it is impossible to use techniques like action-inquiry process to test validity and refine as necessary and so we will need to rely on more qualitative data and take a more epistemological approach to tackle

---

<sup>1</sup> Quotation taken from *Minority Report*. 2002. 20<sup>th</sup> Century Fox Film Corporation.

knowledge through the balance of truth and beliefs. The system I am proposing seeks to strike a balance of loyalty program meets technology in order to move forwards into an increasingly digital world within an ethical framework, respecting that the consumer is in control.

*“Man is the only creature that dares to light a fire and live with it. The reason? Because he alone has learned to put it out.”* Henry Jackson Vandyke, Jr.

## **The historical context**

In establishing a framework for debate it is worth looking at the socio-technological developments of our consumeristic society to date. In reviewing historical developments of modern culture and examining the developing tensions between the public and their governors, may provide insights into developing a framework for navigating this increasing modern dilemma afforded by technology.

It was Jürgen Habermas in 1962 who explored this theme of social change in his German work *‘The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society’*.<sup>2</sup> His concept of a *Public Sphere* was founded in the Renaissance in Western Europe and the United States where he had seen a change from the thirteenth to the eighteenth centuries of the conflicting power rising up against the established territorial ruler or monarch, giving rise to a dualism of power between landowners against the overarching ruling estate. This division of rule was further heightened as a commercial economy that began to infiltrate society, where the notion of a property-owning private people could rule over their own household.<sup>3</sup>

These *Bourgeois*, were to become public in discursive matters of governance and commerce and to these ends it gave rise to both the notion of privacy and publicity. The former in terms of a man assuming role of personal owner of commodities combined with being head of the family, and essentially defining what it is to be a ‘human being’ – against the backdrop of historically seeing workers as merely an extension or tool of the feudal landowner. This change of ownership, the power of control over one’s individual rights, morphed into how a group of like-minded and rational individuals met to *share* their reflections publicly.<sup>4</sup> The publicity of the Bourgeois inevitably extended to critically debate state-social relations as opposed to promote the former closeted control of the courtly elite – the origins of public opinion, popular culture and social welfare – within what is termed the *Public Sphere*.

It was this essence of individual liberty, brought on in part by the literary need for them as merchants to acquire accurate information about distant markets, which in turn drove the growth of

---

<sup>2</sup> Habermas, J., *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, 1962. (English Translation Burger, T., 1989) Cambridge Mass.: The MIT Press, pp. 27-29, 305

<sup>3</sup> *Id*

<sup>4</sup> Stanford Encyclopaedia of Philosophy, *The Early Development Of Habermas's Interest In The Public Sphere And Reason*. May 2007. Available at: <http://plato.stanford.edu/entries/habermas/#EarDevHabIntPubSphRea>

*mass media* – the assembly of information for people to make informed and largely unbiased decisions – and birthed capitalism. Habermas saw this power moving away from the feudal order of both church and state, which historically had stemmed information, into discursive areas such as town squares, coffee houses or salons and ultimately onto the free or democratic press which came to challenge the governing rule within 18th century liberal democracy.<sup>5</sup>

However, several forces began to counter-challenge this public realm. As technology facilitated the process of knowledge distribution, this posed the greatest threat to governance. Invariably over time this *mass media* changed from a medium from which the public got their information on political matters into a tool for political forces to manipulate and regulate. Equally as consumerism took hold, it became a medium for advertisement,<sup>6</sup> giving rise to the notion of ‘brands’ and the potential rise of a new commercial power source which arguably control popular opinion by dissecting inherent satisfaction, questioning whether wholeness in the group is truly achievable without the ownership of a particular product which can act as the solidifying identifier.

Simultaneously there is arguably an equal development of a *Private Sphere*, in terms of ownership and responsibility of not only physical goods but also of thoughts and deeds, i.e. knowledge. The ownership of this experience and knowledge is in itself a valuable commodity, e.g. ‘intellectual property’ for commercial entities. If we believe data is power, this would suggest that the more detailed the data that can be collated of any individual, the more power that can be wielded by those with access to it. As data technology progresses, we move beyond the private into the intimate and thus it continues to challenge both individual liberty and Habermas’s view of defining humanity.

## **The current iteration**

Criticism of the open notion of the Bourgeois also extends to the fact that it is and of itself a distinct social class that does not embrace the true masses in as much as it contains many inequalities through prerequisites to enter, such as ownership of property, thereby being predominantly upper-class male dominated.<sup>7</sup> The Bourgeois it seems are therefore a distinct strata of society that neither reflects the large discourse that tackles the feminine aspects, the excluded societal poor or even apparent taboo issues, which could be seen to include things like homosexuality.<sup>8</sup>

Despite valid criticism, Habermas however does allude to the fact that technology had helped develop the rise of the *Public Sphere* via mass media, which in turn challenged the status quo of society. Yet his work was developed prior to the way the Internet has risen to alter perceptions of

---

<sup>5</sup> *Id*

<sup>6</sup> Habermas, J., Calhoun, ed., *Further Reflections on the Public Sphere, Habermas and the Public Sphere*, 1992, Cambridge Mass.: The MIT press, p. 437

<sup>7</sup> Fraser, N., Calhoun, ed., *Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy, Habermas and the Public Sphere*, 1992. Cambridge Mass.: The MIT press, pp. 109–142

<sup>8</sup> Cubitt, S. *Ecomedia*, 2005, Rodopi B.V., Amsterdam. pp. 95

both public and private especially when we consider social media, the online equivalent of the Bourgeois coffeehouse mentality, which we can term *Public Sphere 2.0*. On one hand it has flattened the social distinctions that perplexed Habermas' theory and allowed the excluded and the taboo to find a way of interconnecting – providing you have access to online information – and yet equally has provided more complexities through fragmentation and exclusive groups with no apparent governance. When tackling an indefinite audience, especially those who cross the traditional national borders, James Bohman suggests the question lies as to what kind of democracies can exist within a fluid environment as opposed to looking for a new public structure within this new setting. Bohman sees technology has given rise to a 'public of publics' and cites the EU as one modern development of such an institution,<sup>9</sup> as unique cultures agree to centralised governance.

As the infrastructure develops it offers a radical rethink of both *computing* and social intercourse. *Facebook* will soon overtake *Google* as the most visited website daily,<sup>10</sup> already boasting 22 percent of all Internet users from all corners of the globe and social strata.<sup>11</sup> Similar growth is seen in *Twitter* reaching 100M<sup>12</sup> and *FourSquare* now at 3M users.<sup>13</sup> This forces a shift in advertising methods, moving from the uni-directional advertising of the past, akin to a preacher dictating his product benefits through various media, to that of bi-directional insight of two-way conversation afforded by the Internet against brand's activities. This return-path of data of product feedback and consumer behaviour can be fed back to the advertiser; from Fan Pages, Tweets to comments against *YouTube* videos which have become the pre-qualifier from consumers contemplating making a purchase, developing on from 'public opinion' comments on *Amazon*. Private thoughts broadcasted publicly, despite two-thirds of Social Media users being concerned over ID theft,<sup>14</sup> offer the brand an ability to litmus test their audience with direct feedback about their products and services.

The demands for real-time updates of Social Media whilst away for the home or the ability to compare in-store product prices against the Internet whilst out-and-about with the likes of *Google Goggles* are helping drive the mobile Internet growth. Facebook is the most used app on the iPhone and according to studies by Ofcom, is currently is 45% of mobile Internet time and only 25% of PC

---

<sup>9</sup> Bohman, J., Roberts, J.M. *Expanding dialogue: The Internet, the public sphere and prospects for transnational democracy*, in Crossley, ed., *After Habermas: New Perspectives on the Public Sphere*, 2004, Oxford, Blackwell Publishers. Ltd, pp. 131, 140

<sup>10</sup> Fleming, R. *Facebook Projected to Overtake Google*, 23 August 2010. Available at: <http://www.digitaltrends.com/computing/facebook-projected-to-overtake-google/?news=123>

<sup>11</sup> Arthur, C. *Facebook reaches 500 million users*, 21 July 2010. Available at: <http://www.guardian.co.uk/technology/2010/jul/21/facebook-500-million-users>

<sup>12</sup> Arthur, C. *See how Twitter grew - and find out what made it explode*, 27 August 2010, Available at: <http://www.guardian.co.uk/technology/blog/2010/aug/27/twitter-growth-interactive>

<sup>13</sup> Rao, L. *FourSquare Now 3 Million Strong*, 29 August 2010. Available at: <http://techcrunch.com/2010/08/29/foursquare-now-3-million-strong/>

<sup>14</sup> Clarkson, D. *Why social media could cost you*, 8 March 2010. Available at: <http://money.uk.msn.com/credit-reports/articles.aspx?cp-documentid=152415838>

time in the UK.<sup>15</sup> With mobile set to overtake desktop Internet access within five years,<sup>16</sup> the ability for an even more targeted advertising system is beginning to dawn.<sup>17</sup> From *FourSquare's Tips/Offers* to *ShopKicks KickBucks* targeting relevant ads to a phone as the consumer actually enters a store or investigates or purchases physical products utilising GPS/NFC/RFID technology<sup>18</sup> are all initiatives into the foray of geo-located targeted advertising to consumers directly on the high street.<sup>19</sup>

## The Intimate Sphere

This independent evaluation by consumers strikes right at the heart of what Habermas suggested the Bourgeois merchants had sought to deliver with the development of mass-media but lost through political and biased control. Social networks, continually push the boundaries of what is private in a modern context, making assumptions privacy is past tense. As marketers seeks to influence these environments for their own gains, the rules of engagement are such that any obvious manipulation of the group serves as a negative brand reaction from the consumer. Recent concerns' surrounding user profiling have alarmed and outraged many online users and privacy groups and remains a continuing debate.<sup>20</sup> Controversy over Facebook using willingly offered personal data for targeted advertising purposes,<sup>21</sup> was felt to be an intrusion.<sup>22</sup> This is of particular concern when already we are seeing that variations of cookie tracking for advertising purposes are causing lawsuits.<sup>23</sup>

Yet this is not new. As far back as 1999, the public and media have petitioned politicians to intervene after ad server DoubleClick acquired Abacus<sup>24</sup> and proposed to link intimate offline consumer purchase habits of some 88 million catalogue shoppers to their online data and then leverage this 'to provide laser-targeted advertising to its many advertisers'.<sup>25</sup> *Business Week* urged Congress to take

---

<sup>15</sup> BBC News, *Ofcom report highlights 'multi-tasking media users'*, 19 August 2010, Available at: <http://www.bbc.co.uk/news/technology-11012356>

<sup>16</sup> Mobile Beyond, *Mobile Internet Research Report Reveals Massive Mobile Internet Growth*, 26 February 2010. Available at: <http://mobilebeyond.net/mobile-internet-research-report-reveals-massive-mobile-internet-growth/>

<sup>17</sup> Maher, R. *Large Brands Experimenting With Location-Based Mobile Advertising*, 17 March 2010. Available at: <http://www.tbiresearch.com/for-mobile-advertisers-its-all-about-location-location-location-2010-3>

<sup>18</sup> Clifford, S. *As shoppers stroll, a pitch in every aisle*, 17 August 2010. Available at: <http://www.mydigitalfc.com/news/shoppers-stroll-pitch-every-aisle-549>

<sup>19</sup> Foley, S. *Advertising: Now we're really going places*, 20 August 2010. Available at: <http://www.independent.co.uk/news/business/analysis-and-features/advertising-now-were-really-going-places-2057351.html>

<sup>20</sup> Kaplan, D. *Privacy Issues Spur EU Scrutiny Over Behavioral Targeting*, 23 November 2007, <http://paidcontent.co.uk/article/419-privacy-issues-spur-eu-scrutiny-over-behavioral-targeting-facebooks-bea/>

<sup>21</sup> Singel, R. *Facebook Beacon Tracking Program Draws Privacy Lawsuit*, 14 August 2008. Available at: <http://www.wired.com/threatlevel/2008/08/facebook-beacon/>

<sup>22</sup> BBC News, *Protests force Facebook to change*, 30 November 2007. Available at: <http://news.bbc.co.uk/1/hi/technology/7120916.stm>

<sup>23</sup> Diaz, S. *Ad network at center of third Flash Cookie lawsuit*, 25 August 2010. Available at: <http://www.zdnet.com/blog/btl/ad-network-at-center-of-third-flash-cookie-lawsuit/38346>

<sup>24</sup> Macavinta, C. *DoubleClick, Abacus merge in \$1.7 billion deal*. CNet News.com. 24 November 1999. Available at: <http://www.news.com/2100-1023-233526.html>

<sup>25</sup> Pasternack, Dave. *Google and DoubleClick: Risky business?* DM News. 3 April 2007. Available at: <http://www.dmnews.com/Google-and-DoubleClick-Risky-business/article/95312/>

action.<sup>26</sup> When we look to the new mobile location-based advertised systems such as those offered by *FourSquare* or especially now *ShopKick* utilising RFID,<sup>27</sup> we realise that the three specific concerns are actually converging and has reached the echelons of decision makers, especially surrounding the modern interpretation of a consumer's privacy. In Brussels in November 2009, Viviane Reding, Member of the European Commission responsible for Information Society and Media, highlighted the issues further at the '*European Digital Agenda for the New Digital Consumer*,' citing 'three technological and commercial developments that have particular implications for privacy: **social networking, behavioural advertisement and RFID "smart chips"**'.<sup>28</sup>

Despite keen interest in cross-channel tracking and serving targeted ads against such data, neither governments, technology companies nor privacy groups have seemingly come up with an acceptable working standard to address current behavioural advertising let alone the next iteration of walking seemingly blind into such a connected society. Habermas termed the café culture the *Public Sphere* and the Internet and in particular Social Media has given us the *Public Sphere 2.0*, against which the concerns could see this as the rise of the *Private Sphere*. With digital screens growing at 33% per year<sup>29</sup> and estimates suggest by 2015, 15% of all billboards in Europe will be digital, some of which will be touch-screen<sup>30</sup> one could even suggest a *Public Sphere 3.0*. However with the fast adoption of *Smart Phones* and the race towards *Smart Chips*, the question is are we moving into something we should be correctly labelled the *Intimate Sphere*? When we consider information shared publicly has both an intimate location-based or behavioural-based feedback component, utilising cameras that recognise bio-metrics or sensors tracking unique RFID identifiers, we take Harbemas' discussion potentially full circle, moving back from public to private to intimate. Such predicaments facing modern society force governing authorities feel inclined to get involved. Viviane Reding states,

*"The Commission is closely monitoring the use of behavioural advertising to ensure respect for our privacy rights. Now, European privacy rules are crystal clear: a person's information can only be used with their prior consent. Transparency and choice are key words in this debate."*<sup>31</sup>

---

<sup>26</sup> Stepanek, M. *Washington Must Step In to Protect E-Privacy*, 26 July 1999. Available at: [http://www.businessweek.com/1999/99\\_30/b3639036.htm](http://www.businessweek.com/1999/99_30/b3639036.htm)

<sup>27</sup> *Supra note 18*

<sup>28</sup> Reding, V. "A European Digital Agenda for the New Digital Consumer," *Europa*, 12 November 2009, <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/524>

<sup>29</sup> Aun, F.J. *Digital Signage Growth Boosted by Cheap Hardware, Restrained by Security Costs*, 11 March 2009. Available at: <http://www.storefrontbacktalk.com/securityfraud/digital-signage-growth-boosted-by-cheap-hardware-restrained-by-security-costs>

<sup>30</sup> *Information gleaned from:*

<http://www.screendigest.com/reports/08digitalsignageeurope/pdf/08DigitalSignageEurope-pdf/view.html>

<sup>31</sup> Viviane Reding, "A European Digital Agenda for the New Digital Consumer," *Europa*, 12 November 2009, <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/524>

## So what is RFID?

Radio Frequency Identification (RFID) are wireless, networkable, speck-of-dust-sized microcomputers used to automate *perception*.<sup>32</sup> It is an electronic tagging technology, which allows objects, places, animals or people to communicate their position and other information constantly in a vast network. RFID are either active or passive and consist of two parts, and Integrated circuit (IC) for storing and processing information and an antenna. Invisible to the most part, RFID allows everyday objects to become searchable and traceable. Known as 'smart' chips / tags or radio barcodes,<sup>33</sup> they have been dubbed 'spychips' by privacy activists.<sup>34</sup>

Developed between Massachusetts Institute of Technology (MIT) and Proctor & Gamble<sup>35</sup> who were losing \$50 billion a year to theft and other 'shrinkage' costs,<sup>36</sup> they set up the Automatic Identification Center (Auto-ID) in 1999 in order to develop an open source system to connect all physical objects to the global Internet and in turn form an 'intelligent infrastructure'<sup>37</sup> to allow continuous tracking and identification of physical resources.<sup>38</sup> Rather than requiring a direct line-of-sight scanner to "see" a barcode and read it though correct orientation and then only reading a single item at a time, RFID allows the tagged items to be automatically and precisely identified at a distance, even through walls, and be read in any direction as long as they are within proximity of a reader via electromagnetic fields,<sup>39</sup> up to 300ft (100m) in the case of the active battery powered ones.<sup>40</sup> RFID can also read multiple items simultaneously, 700 in some instances,<sup>41</sup> making it much easier to instantly tally up an entire shopping trolley, for example.

Estimates suggest 100Bn tags a year are soon to be produced<sup>42</sup> and 'hundreds of organisations are now using RFID on or in apparel... the largest use is in or on the item of clothing itself, whether by a stitched-in cloth tag or a paper swing tag.'<sup>43</sup> Prada, Armani, Dolce and Gabbana, Benetton and Levi

---

<sup>32</sup> Information gleaned from: <http://www.leighbureau.com/speaker.asp?id=278>

<sup>33</sup> Progressive Grocer, *Tesco Trials New Technology With IBM to Improve Product Availability for Shoppers*, 16 October 2003. Available at: <http://www.allbusiness.com/retail-trade/food-stores/4255857-1.html>

<sup>34</sup> For more information see <http://www.spychips.com>

<sup>35</sup> Information gleaned from: <http://connect.in.com/kevin-ashton/biography-163695.html>

<sup>36</sup> Batista, E. 'Step Back' for Wireless ID Tech?, 8 April 2009, Available at:

<http://www.wired.com/gadgets/wireless/news/2003/04/58385?currentPage=1>

<sup>37</sup> Borriello, G. "RFID: tagging the world," *Communications of the ACM*. 48, no. 9 (September 2005): 34-37.

<sup>38</sup> CoverPages, *Auto-ID Center Uses Physical Markup Language in Radio Frequency Identification (RFID) Tag Technology.*, 21 November 2001. Available at: <http://xml.coverpages.org/ni2001-11-21-c.html>

<sup>39</sup> Want, W. "The Magic of RFID," *Queue (ACM)* 2, no. 7 (October 2004): 40-48.

<sup>40</sup> RFID Journal LLC, *General RFID Information*, 1 June 2009. Available at:

[http://www.aimglobal.org/technologies/rfid/rfid\\_faqs.asp](http://www.aimglobal.org/technologies/rfid/rfid_faqs.asp)

<sup>41</sup> Information gleaned from: <http://www.mojix.com/products/index.php>

<sup>42</sup> Dixon, P. *Rfid - 100 Billion Wireless Tagging Devices*, 1 June 2004. Available at:

<http://www.globalchange.com/rfids.htm>

<sup>43</sup> Das. R., Holland, G. & Dr Harrop, P. *Apparel RFID 2009-2019*, 1 July 2009. Available at:

[http://www.idtechex.com/research/reports/apparel\\_rfid\\_2009\\_2019\\_000207.asp](http://www.idtechex.com/research/reports/apparel_rfid_2009_2019_000207.asp)

Strauss among the adopters to date, fuelled by the renewed drive by the worlds largest retailer, WalMart to tag specific items in its stores.<sup>44</sup> Other uses include; tracking of airport baggage or pallets in supply chains;<sup>45</sup> tracking animal inventory whether wild,<sup>46</sup> livestock to domestic pets; entry systems to buildings or vehicles; transport networks; tracking of prisoners or those on a curfew; wristbands in theme parks;<sup>47</sup> or in the packaging of (or hidden within) pharmaceuticals.<sup>48</sup> RFID-enabled mobiles in Japan<sup>49</sup> have the ability to pay for items via waving their phones, *wave-and-go*<sup>50</sup> in the West heralds the influx of this technology<sup>51</sup> and Sony Ericsson,<sup>52</sup> Nokia and Apple<sup>53</sup> plan to implement RFID readers within their mobiles – and externally linked RFID readers already exist.<sup>54</sup>

RFID fits within part of a framework known as Ubiquitous Computing (UbiComp),<sup>55</sup> the post-desktop model of human-computer interaction . Also known as pervasive computing, ambient intelligence, physical computing or the '*Internet of Things*'. It can also be termed M2M, machine-to-man, and is essentially about the connecting of people, devices and systems. With an increasing number of sensor-driven applications linked via RFID such as glucose-sensing human-implantable RFID chips which could be tweaked to monitor pandemics following the H1N1 swine flu scare 'to assist in emergency preparedness'<sup>56</sup> it is clear we are pushing the boundaries beyond comfortable limits with RFID. It is against this backdrop we are posed to move beyond Habermas into a very *Intimate Sphere*.

---

<sup>44</sup> Roberti, M. *Wal-Mart Relaunches EPC RFID Effort, Starting With Men's Jeans and Basics*, 23 July 2010. Available at: <http://www.rfidjournal.com/article/view/7753/>

<sup>45</sup> *Supra note Error! Bookmark not defined.*

<sup>46</sup> Information gleaned from: <http://www.biomark.com>

<sup>47</sup> O'Connor, M.C. *Great Wolf Water Park Launches RFID*, 22 March 2006. Available at: <http://www.rfidjournal.com/article/articleview/2211/1/1>

<sup>48</sup> MacFarlane, J. *Microchip that tells the GP if you've taken your pills* 12 April 2009. Available at: <http://www.dailymail.co.uk/health/article-1169305/Microchip-tells-GP-8217-ve-taken-pills.html>

<sup>49</sup> Akiyama, T. *Gyazapo RFID phones to carry loyalty points from 100 stores*, 23 February 2009. Available at: [http://www.digitalworldtokyo.com/index.php/digital\\_tokyo/articles/gyazapo\\_rfid\\_phones\\_to\\_carry\\_loyalty\\_points\\_from\\_100\\_stores](http://www.digitalworldtokyo.com/index.php/digital_tokyo/articles/gyazapo_rfid_phones_to_carry_loyalty_points_from_100_stores)

<sup>50</sup> Whateley, W. *Can you trust wave-and-go cash cards?*, 24 October 2009 Available at: [http://www.timesonline.co.uk/tol/money/consumer\\_affairs/article6887579.ece](http://www.timesonline.co.uk/tol/money/consumer_affairs/article6887579.ece)

<sup>51</sup> Lytle, M.J. *Japanese RFID phones ready to battle for West*, 20 August 2008. Available at: <http://www.techradar.com/news/phone-and-communications/mobile-phones/japanese-rfid-phones-ready-to-battle-for-west-454283>

<sup>52</sup> Lomas, N. *RFID could be in all cell phones by 2010*, 25 June 2009. Available at: [http://news.zdnet.com/2100-9595\\_22-315292.html](http://news.zdnet.com/2100-9595_22-315292.html)

<sup>53</sup> Ray, B. *Apple IDs the next-generation iPhone*, 10 November 2009. Available at: [http://www.reghardware.co.uk/2009/11/10/iphone\\_nfc](http://www.reghardware.co.uk/2009/11/10/iphone_nfc)

<sup>54</sup> Stevens, T. *Wireless Dynamics brings the joys of inventory management to the iPhone with the iCarte RFID reader*, 19 November 2009, Available at: <http://www.engadget.com/2009/11/19/wireless-dynamics-brings-the-joys-of-inventory-management-to-the>

<sup>55</sup> Weiser, M. *Ubiquitous Computing*, 1996 3-March. Available at: <http://sandbox.xerox.com/ubicomp>

<sup>56</sup> Tomek, A. "VeriChip Corporation to Present its Glucose-Sensing RFID Microchip and Virus Triage Detection System for the H1N1 Virus at ID World International Congress," *VeriChip*, 29 October 2009, Available at: <http://www.verichipcorp.com/pressreleases/102909.html>

Adam Greenfield, Head of Design at Nokia,<sup>57</sup> calls it *Everyware*, in as much as micro-computers are embedded *everywhere* in the environment. His view is that the human being should be central to the systems that are being built and feels that the window of opportunity to influence for an acceptable result is 'very narrow and upon us as technology and business takes the stage.'

*"My concern is that as we make the decisive turn towards ubiquitous computing, we run the risk of designing not merely technical systems, but in fact a world where the human being and our fundamental prerogatives of privacy, sanity and serenity are overwhelmed at all times and in all places."*<sup>58</sup>

## Digital marketing with RFID

Any advancement that can ultimately reduce overall costs more efficiently than barcodes is the key drive behind the interest and adoption of new technologies such as RFID.<sup>59</sup> From a marketing perspective the ultimate concept of RFID would be in the targeting of individual persons or consumer groups from a commercial standpoint to deliver uniquely targeted brand messages either through advertising or in point-of-sale (POS). If such savings are passed to the consumer as opposed to increase profits to suppliers, there could be much more widespread acceptance.

Metro Group *Future Store* piloted in Rheinberg, Germany fully utilises RFID technology, it boasts interactive displays and automated shopping checkout without cashiers. One application is a smart fitting room with touch LCD screen and intercom where the interactive display recommends accessories linked to RFID tags in garments as you look at yourself in a *smart* mirror. Already Metro Group is claiming a 15% in sales growth and 20% new customers as a result.<sup>60</sup> Aramis by Estee Lauder utilise interactive screens aimed at men in certain UK stores. When RFID chipped products are picked up, they play back informational videos along with cross-recommending other products in the range. A special tag from a Lab Series Consultant can also turn the screen into a skin scanner, 'enabling a customer's skin type to be analyzed and suitable products recommended.'<sup>61</sup>

Part of the *Tokyo Ubiquitous Network*<sup>62</sup> allows advertising triggered via RFID in shopping centres.<sup>63</sup> *ShuFoo* service aimed at housewives delivers coupons or bill copies of the purchased items to the

---

<sup>57</sup> Information gleaned from: <http://speedbird.wordpress.com/about/>

<sup>58</sup> Taken from a presentation given by Adam Greenfield at Keio University's DMC Institute, Tokyo, Japan on July 15, 2006. Available at: <http://www.youtube.com/watch?v=RMXox8IJvmE>

<sup>59</sup> Varchaver, N. *Scanning the Globe*, 31 May 2004. Available at: [http://money.cnn.com/magazines/fortune/fortune\\_archive/2004/05/31/370719/index.htm](http://money.cnn.com/magazines/fortune/fortune_archive/2004/05/31/370719/index.htm)

<sup>60</sup> More information available at: <http://www.future-store.org/fsi-internet/html/en/392/index.html>

<sup>61</sup> Digital Signage Today, *Signagelive powers Estee Lauder point-of-decision retail signage*, 17 October 2008. Available at: <http://www.digitalsignagetoday.com/article.php?id=20872&na=1&s=2>

<sup>62</sup> Information gleaned from: <http://www.tokyo-ubinavi.jp/en/about.html>

<sup>63</sup> Trendhunters, *User Targeted Ads Via RFID*, 4 January 2007, <http://www.trendhunter.com/trends/user-targeted-ads-via-rfid-attention-shopper-this-ad-is-just-for-you>

mobile device and the website had 60M users looking for coupons in the first 6 months of 2009.<sup>64</sup> *SuiPo* (Suica Posters) in train stations and streets where a user requiring tourist or advertising information can point their mobile at the poster and pull down more information to their phone.<sup>65</sup> McDonalds Japan deployed *Kazasu* Coupon and an e-wallet RFID payment system in 175 locations nationwide in 2008 for its 10 million registered mobile users.<sup>66</sup> Consumers are able to use their mobile as a barcode scanner on meals to get nutritional information, order from a menu and then pay by waving their mobile over a POS terminal. The McDonalds' CRM system is updated and monitors buying patterns and habits, sending specific coupons direct to consumer's mobiles.<sup>67</sup>

Both Castrol in the UK using roadside cameras<sup>68</sup> and Mini in the US using RFID have attempted to target motorists with personalised digital billboards. They differed in as much as the mini campaign was 'opt in' and the Castrol one was not. The mini community was split as to whether they felt it was 'cool' or 'creepy',<sup>69</sup> however with Castrol attracted media attention<sup>70</sup> after it was revealed that the firm responsible for the data of 34M driver details of UK motorists obtained data from the DVLA (Driver and Vehicle Licensing Authority). Questions arose over the privacy of a government agency making such data freely available and used for a purpose other than why it was collected. In a personal conversation with Mindshare,<sup>71</sup> the media buying agency, they admit they were not prepared for a consumer backlash, which is surprising given an over-familiarity on behalf of the advertiser used here, which understandably can make people feel uncomfortable.

Even in Japan there are concerns as one woman pointed out: *"The food here's as cheap as it gets anyway - why would I give out my phone information and risk junk mail from McDonald's just to save a few yen once in a while?"* It highlights a growing fear of receiving unwanted marketing, leading many Japanese to avoid coupon technologies, such as QR Codes. Clearly a balance needs to be struck around 'how much is too much' in order to maintain acceptance in the marketplace.<sup>72</sup>

---

<sup>64</sup> Wireless Watch Japan, *Coupon Shopping with Shufoo!*, 25 June 2009. Available at: <http://wirelesswatch.jp/2009/06/25/coupon-shopping-with-shufoo>

<sup>65</sup> Information gleaned from: <http://www.technovelgy.com/ct/Science-Fiction-News.asp?NewsNum=1089>

<sup>66</sup> Wireless Watch Japan, *McDonalds Japan Rolls RFID Coupons*, 23 May 2008. Available at: <http://wirelesswatch.jp/2008/05/23/mcdonalds-japan-rolls-rfid-coupons>

<sup>67</sup> Swedberg, C. *McDonald's Japan Brings Discounts to Phones*, 2 June 2008. Available at: <http://www.rfidjournal.com/article/view/4108/1>

<sup>68</sup> Farey-Jones, D. *Castrol uses cameras and digital billboards to talk directly to motorists*, 21 September 2009. <http://www.brandrepublic.com/news/index.cfm?fuseaction=BR.News.Article&nNewsID=939651&sHashCode=&>

<sup>69</sup> O'Connor, M.C. *RFID-Enabled Billboards Talk to Mini Motorists*, 29 January 2007, Available at: <http://www.rfidjournal.com/article/articleview/3005/>

<sup>70</sup> Leake, C. *Drivers' details sold by DVLA are used in bizarre roadside adverts for Castrol*, 27 September 2009. Available at: <http://www.dailymail.co.uk/news/article-1216414/Now-drivers-details-sold-DVLA-used-bizarre-roadside-adverts-Castrol.html>

<sup>71</sup> Conversation happened on 3<sup>rd</sup> December 2009 in Mindshare Chicago with global media director.

<sup>72</sup> Lytle, J. M. *McDonald's serves Java with mobile phone menu*, 20 May 2008. Available at: <http://www.techradar.com/news/phone-and-communications/mobile-phones/mcdonalds-serves-java-with-mobile-phone-menu-370050>

## Bringing it home

Though these scenarios reveal an intelligent marketing solution to solving a need for relevance at a consumer intersection in the real world, the ability for RFID goes much further with unknown consequences. UK councils started placing RFID readers into wheelie bins back in 2006 and initial rollout was half a million homes, which the press termed '*bin brother*' after it emerged plans for offenders of non-recycling could pay fines.<sup>73</sup> Using Samsung's *HomeVita* network system<sup>74</sup> in Korea, RFID refrigerators can send a shopping list to your mobile phone when you remove items out of them and intelligent work surfaces can recommend recipes of items placed upon them. Knowing if an item has just been disposed of in an RFID-enabled bin links 'when' to advertise with 'what' and also 'where' through the location of the person and vicinity to a digital screen to show a targeted ad.

The issue is clearly highlighted in utility companies wishing to monitor usage of a *Smart Grid*, which effectively takes personal data from within the home, outside it. Whilst a Smart Grid that monitors energy usage naturally poses benefits to consumer and environment alike, it too presents new privacy risks as near real-time consumption data of energy and appliances and is crossing the boundary into profiling an *intimate* portrait of family lives<sup>75</sup> for the sake of the mass *public*.

Supported by the Ubiquitous Autonomic Computing and Network Project in South Korea, Kyoung Jun Lee & Jungho Jun in their discussion on "*Tag Match Advertising Business Model in Mobile RFID Environment*"<sup>76</sup> explores the idea of RFID readers embedded within mobile devices to allow a continuous transmission of a user's demographical data whilst distributing further content to them based on their interests shown by the scanning of tagged objects. Bypassing the need for 'searching' online via product name whilst allowing real-time updates to CRM systems for advertisers. In an email exchange with Professor Kyoung Jun Lee, he feels Tag Match Advertising is "just the NFC or RFID version of 'content match advertising' such as Google's *AdSense* and therefore, all the policy, ethics, and legal issues will be almost the same with those of existing in other medium."<sup>77</sup>

As 1,000 stores in 100 of the largest malls across the US adopt *ShopKick*'s NFC technology for consumers to gain rewards via their Smart phones,<sup>78</sup> ShopKick has tried to take this ethical approach a stage further by allowing consumer's to donate some of their rewards to the 300-odd charities it has partnered with through its trial application *CauseWorld*. Since its December 2009 release,

---

<sup>73</sup> Delgado, M. *Germans plant bugs in our wheelie bins*, 26 August 2006. Available at: <http://www.dailymail.co.uk/news/article-402439/Germans-plant-bugs-wheelie-bins.html>

<sup>74</sup> For more information, see: <http://support-cn.samsung.com/homevita/>

<sup>75</sup> Wang, L. & Eraker, L. "*Privacy by Design*" in the *Smart Grid*, 3 December 2009. Available at: <http://www.cdt.org/blogs/cdt/privacy-design-smart-grid>

<sup>76</sup> Jun Lee, K. & Jun, J. *Tag Match Advertising Business Model in Mobile RFID Environment*. 11 November 2008. Available at: <http://doi.ieeecomputersociety.org/10.1109/ICCIT.2008.235>

<sup>77</sup> Taken from an email exchange with Professor Kyoung Jun Lee on 2 December 2009.

<sup>78</sup> Hahn, C. *Shopkick and Retail Mobile Rewards*. 19 November 2010. Available at: <http://www.androidguys.com/2010/11/19/shopkick-retail-mobile-rewards>

CauseWorld stands as the fastest-growing location-based application with 550,000 downloads in its first five months and recently reached its \$1 million milestone in charity donations.<sup>79</sup>

Despite donations to charity, taking the technology further to the logical conclusion of this pervasive technology takes us into a highly ethical dilemma. Knowledge of a person's medical conditions or eating habits in order to advertise anything from relevant foodstuffs, dietary supplements, gym memberships to vacation opportunities. Knowledge of a person's finance and spending habits to advertise relevant banking or credit opportunities, changing insurance or telecoms provider... the list is endless. Whether this would be acceptable, wanted or indeed moral is another matter entirely that needs to be debated as we move into the *Intimate Sphere*. Russell Davies sums it up,

*"There's a big and definite difference between volunteering data on a website and having it extracted from you as you drive along the street or surf around the web."*<sup>80</sup>

Though commercial organisations are not necessarily pushing or the tagging of every individual as such, they certainly are pushing for the tagging of every single item and the ones most prone to benefit of such – dismissing concerns and without clarity on how and if dormant RFID can be 'reawakened' by proximity to another scanner later on.<sup>81</sup> It brings to bear an ethical discussion surrounding *Digital Citizenship* and the dilemma for living safely and efficiently in an included online world through unparalleled access to open communication forums as we all participate in a broadly-based cultural transformation.<sup>82</sup> Scientific progress and technology has shrunk us to a global village at ever increasing speeds leading a sense of nauseousness as things appear to go out of control.<sup>83</sup> Where Habermas discussed culture in terms of pre-Enlightenment, or pre-Industrial revolution, we find ourselves discussing pre-Broadband or pre-iPhone,<sup>84</sup> such is the speed of change.

## Perception drift

In addition to Habermas' insights it would seem there is a further development to the juxtaposition shaping modern society beyond consumerism, namely terrorism, which can be seen as the violent

---

<sup>79</sup> Elliott, AM. *Checks for Charity: The Rise of Geo-Social Good*. 16 November 2010. Available at: <http://mashable.com/2010/11/16/charity-checkins>

<sup>80</sup> Davies, R. *Media Perspective: Brands must tread carefully around the issue of targeting*, 9 October 2009, <http://www.campaignlive.co.uk/news/features/946138/Media-Perspective-Brands-tread-carefully-around-issue-targeting>

<sup>81</sup> RFID Buzz. *Tesco CEO rejects RFID privacy worries*, 7 April 2004, [http://www.rfidbuzz.com/news/2004/tesco\\_ceo\\_rejects\\_rfid\\_privacy\\_worries.html](http://www.rfidbuzz.com/news/2004/tesco_ceo_rejects_rfid_privacy_worries.html)

<sup>82</sup> Tolbert, C.J. McNeal, R.S., Mossberger, K. *Digital Citizenship: The Internet, Society, and Participation* (Cambridge, MA: MIT Press, 2007).

<sup>83</sup> Pesce, M. *Digital Citizenship*, 15 April 2009, <http://blog.futurestreetconsulting.com/?p=132>

<sup>84</sup> Shute, T. *Towards a Newer Urbanism: Talking Cities, Networks, and Publics with Adam Greenfield*, 27 February 2009, <http://www.ugotrade.com/2009/02/27/towards-a-newer-urbanism-talking-cities-networks-and-publics-with-adam-greenfield>

outpouring of the structured socio-political debate. Yet both share similarities in their pervasive embedding within society and prevailing invisibility to the masses.

In commercialism driven from capitalism, the need to promote and create desire for the ownership of the product or service on offer sees an increasing demand to know more of an intimate portrayal of any given individual's interests and thought patterns in order to have a more relevant conversation leading to conversion. As the credit-crunch hits, advertisers globally are demanding more accountability for the ad dollars they are investing.<sup>85</sup> As John Wanamaker who created the first ever copyrighted store advertisement<sup>86</sup> famously said, "I know half the money I spend on advertising is wasted, but I can never find out which half." He added that 'if you can identify a receptive market, advertising dollars will go much farther.'

Targeting in some form or another exists within all advertising media, and data is collated through a variety of methods in order to ascertain better media buying in the future. Whether through panel research or esoteric figures based on formulaic calculations, the data is not accurate enough to ascertain actual consumer behaviour and therefore able to predict Wanamaker's 'which half?' David Cohen, in discussing *audience composition* highlights that even targeted media buys based on demographics, i.e. assuming it is just teens read teen websites, will only deliver 50-60% of intended audience; 40-50% of the impressions are wasted as they do not reach the intended audience.<sup>87</sup> Looking at global figures that is equating to over \$200Bn<sup>88</sup> in wasted advertising per year and what is more daunting, is that it represents a sizable percentage of any given company's turnover.<sup>89</sup> As technology progresses, the ability to change the 50% of ineffective advertising could alter outcomes dramatically. Adjusting the ratio so that 75% becomes effective and 25% unknown – potentially addresses \$100Bn of wasted advertising globally. The first step along this path is awareness,<sup>90</sup> using *Personas* – ethnographic profiles built up around grouped habits.<sup>91</sup> Intimate information on consumer's browsing and searching habits or known personal preferences can then be used by marketing technology using a rules-based decision to determine which types of content to serve and can determine an appropriate next message to provoke the desirable outcome.<sup>92</sup>

---

<sup>85</sup> DoubleThink, *How much should you spend on marketing?*, 5 May 2009. Available at: <http://thedoublethink.com/2009/05/how-much-should-you-spend-on-marketing>

<sup>86</sup> Information gleaned from Who Made America: John Wanamaker. Available from: [http://www.pbs.org/wgbh/theymadeamerica/whomade/wanamaker\\_lo.html](http://www.pbs.org/wgbh/theymadeamerica/whomade/wanamaker_lo.html)

<sup>87</sup> Cohen, D. *This Half Is Wasted*, 3 September 2003. Available at: <http://www.clickz.com/3071191>

<sup>88</sup> Information gleaned from: <http://www.zenithoptimedia.com/home/>

<sup>89</sup> Information gleaned from: [http://www.score.org/m\\_pr\\_11.html](http://www.score.org/m_pr_11.html)

<http://www.in-business.org.uk/how-much-money-do-businesses-spend-on-advertising-each-year/>  
<http://blackfriarsinc.com/blog/2005/01/marketing-as-percentage-of-revenue.html>

<sup>90</sup> Hallman, H. *Solving the Wanamaker Problem*. 31 July 2006. Available at: <http://www.hallman.com/esp/presentations/wanamakerproblemb2b.pdf>

<sup>91</sup> Information gleaned from: <http://en.wikipedia.org/wiki/Personas>

<sup>92</sup> Heath, R. 2001. *The Hidden Power of Advertising*. 2001. Admap Monographs.

Increasing relevancy based on collected data can foster a better conversion rate through aggregated creative messages<sup>93</sup> whilst offering something that strikes a chord with human needs, so people will be motivated to respond favourably.<sup>94</sup> The overall solution combines the brand impact afforded by interactive digital advertising with online consumer behaviour to provide a more comprehensive effectiveness to deliver greater efficiency and reduce wastage.<sup>95</sup> As such the IAB states that already 20% of online display utilises *behavioural advertising*.<sup>96</sup> Paul Frampton says, what gives digital behavioural marketing an edge is the fact that it is based on 'actual' rather than 'assumed' behaviour.<sup>97</sup> Yet this 'actual' is at the very root of an intimate exposure of every individual especially if enhanced by specific product tracking via RFID tags that could mimic cookies in the connected real world scenario. ComScore suggests 10% of ads in US are already locally targeted at given locations.<sup>98</sup>

The same is true for national security. The rise of warfare technology saw the interaction between the two groups involved in battle ever increasing in distance and the move towards camouflage saw the increased invisibility of the enemy, relying further on technology to seek the opponent out. In modern culture, especially where terrorism has become an increasing threat in the light of 9/11 attacks in the US<sup>99</sup> in 2001 and 7/7 bombings in the UK in 2005,<sup>100</sup> such hiddenness has seen that even in daylight one can not look to external signs such as cultural dress, or even age or gender, to determine who is a potential threat. Fearing yet another terrorist attack on national soil<sup>101</sup>

Habermas' concern very much identified of the free-press beginning to be controlled by the state is equally rising again. The US made inquiries for ISPs to record all customer communications,<sup>102</sup> to intercept possible terrorism. The EU enforces ISPs and mobile phone operators to 'keep all details of their customer's communications for between six months and two years',<sup>103</sup> stating communications

---

<sup>93</sup> Yaron Galai', *The Aggregation Paradox*, 1 April 2006. Available from: [http://galai.typepad.com/blog/2006/04/announcing\\_the\\_.html](http://galai.typepad.com/blog/2006/04/announcing_the_.html)

<sup>94</sup> Kaess, K. 2001. *The Hidden Power of Advertising*. Low Attention Processing. 2001. Available at: <http://www.lowattentionprocessing.com/VCC%20Hidden%20Power%2014.4.02.html>

<sup>95</sup> Basford, B. *Behavioural targeting: How online ads got personal*, 1 June 2006. Available from: <http://www.brandrepublic.com/bulletins/digital/article/565833/behavioural-targeting-online-ads-personal>

<sup>96</sup> Johnson, B. *Code on behavioural web ads launched*, 4 March 2009. Available at: <http://www.guardian.co.uk/technology/2009/mar/04/iab-guideline-behavioural-web-ads>

<sup>97</sup> *Id*

<sup>98</sup> *comScore Study Estimates that 10 Percent of U.S. Online Display Ads are Locally Targeted*, 9 October 2009, [http://www.comscore.com/Press\\_Events/Press\\_Releases/2009/10/comScore\\_Study\\_Estimates\\_that\\_10\\_Percent\\_of\\_U.S.\\_Online\\_Display\\_Ads\\_are\\_Locally\\_Targeted/\(language\)/eng-US](http://www.comscore.com/Press_Events/Press_Releases/2009/10/comScore_Study_Estimates_that_10_Percent_of_U.S._Online_Display_Ads_are_Locally_Targeted/(language)/eng-US)

<sup>99</sup> New York Times, *U.S. Attacked: A Day of Grim Terror in New York and Washington*, 11 September 2001, Available at: <http://www.nytimes.com/indexes/2001/09/11>

<sup>100</sup> BBC News, *London rocked by terror attacks*, 7 July 2005. Available at: <http://news.bbc.co.uk/1/hi/4659093.stm>

<sup>101</sup> Kotecha, S. *FBI probe biggest plot since 9/11*, 18 November 2009. Available at:

[http://news.bbc.co.uk/newsbeat/hi/front\\_page/newsid\\_10000000/newsid\\_10003000/10003036.stm](http://news.bbc.co.uk/newsbeat/hi/front_page/newsid_10000000/newsid_10003000/10003036.stm)

<sup>102</sup> McCullagh, D. *Your ISP as Net watchdog*, 16 June 2005. Available at: [http://news.cnet.com/Your-ISP-as-Net-watchdog/2100-1028\\_3-5748649.html](http://news.cnet.com/Your-ISP-as-Net-watchdog/2100-1028_3-5748649.html)

<sup>103</sup> Hunter, P. "ISP data retention becomes a reality," *Computer Fraud & Security* (Elsevier Ltd ) 2006, no. 4 (May 2006): pp17-18.

interception is 'vital'.<sup>104</sup> It is now claimed it does not go far enough and needs to be widened to place all social-networking sites under surveillance.<sup>105</sup> The US Library of Congress announced that it will be acquiring — and permanently storing — the entire archive of public Twitter posts of their 100 million users since 2006.<sup>106</sup> RFID-enabled passports in UK have already being hacked raising serious doubts over security,<sup>107</sup> and the UK police have already made 3,000 requests for RFID collated OysterCard data in under one year.<sup>108</sup> According to *Privacy International* both the US and UK are at 'endemic' levels of surveillance, aligning them with Russia and China.<sup>109</sup>

Whether economic or fostering safety, what we are seeing here is a governance control of information from both commercial and national levels, which drives for a more pervasive and *Intimate Sphere* of technology to ascertain peoples thoughts and challenging the very concept of individual privacy for the good of the masses. Opposition is calling this 'extremely intrusive' to store data 'just in case' and has attracted criticism from web founder Tim Berners-Lee who says the Internet should not be used to be 'snooped upon'.<sup>110</sup> Furthermore it seeks to turn this willingly, shared information from the public potentially against them, under the marketing guise that law-abiding citizens really should have 'nothing to hide'. This language suggests people are being 'manipulated' or 'spun' to usher in an Orwellian society — 'a future state in which every aspect of life is controlled by Big Brother'<sup>111</sup> — the concept from George Orwell's dystopian 1984 novel about a totalitarian regime of nightmarish pervasive government surveillance.<sup>112</sup>

The irony is this all makes citizens feel less safe. As Leslie Harris, President and CEO of the Center for Democracy & Technology states, 'we must not let an emotional issue potentially jeopardize the liberties of the citizenry and the privacy of their electronic communications,'<sup>113</sup> especially in an age<sup>114</sup>

---

<sup>104</sup> Home Office, *Home Secretary: 'Communications data is vital'*, 15 October 2008, Available at: <http://security.homeoffice.gov.uk/ripa/about-ripa/news/comms-data-vital-speech-15Oct08>

<sup>105</sup> Espiner, T. *U.K. to monitor, store all social-network traffic?*, 18 March 2009, Available at: [http://news.cnet.com/8301-1009\\_3-10199107-83.html](http://news.cnet.com/8301-1009_3-10199107-83.html)

<sup>106</sup> Rosen, J. *The Web Means the End of Forgetting*, July 19 2010, New York Times. Available at: [http://www.nytimes.com/2010/07/25/magazine/25privacy-t2.html?\\_r=1&ref=technology](http://www.nytimes.com/2010/07/25/magazine/25privacy-t2.html?_r=1&ref=technology)

<sup>107</sup> Boggan, S. *Cracked it!*, 17 November 2006, Available at: <http://www.guardian.co.uk/technology/2006/nov/17/news.homeaffairs>

<sup>108</sup> Lydall, R. *Police make 3,000 requests for data from Oyster cards*, 21 February 2008, Available at: <http://www.thisislondon.co.uk/standard/article-23440524-police-make-3000-requests-for-data-from-oyster-cards.do>

<sup>109</sup> Privacy International, *The 2007 International Privacy Ranking*, 18 December 2007, Available at: [http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-559597&als\[theme\]=Data%20Protection%20and%20Privacy%20Laws](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-559597&als[theme]=Data%20Protection%20and%20Privacy%20Laws)

<sup>110</sup> *Id*

<sup>111</sup> Definition of "Orwellian." *The Oxford English Reference Dictionary* (2nd ed.). 1996. pp.1027.

<sup>112</sup> Moncur, M. *Quotation #35028 from Michael Moncur's (Cynical) Quotations*, 1 December 2002, Available at: <http://www.quotationspage.com/quote/35028.html>

<sup>113</sup> Times Online, *ID cards to go on sale for the first time in Manchester*, 17 November 2009, Available at: <http://www.timesonline.co.uk/tol/news/politics/article6919333.ece>

<sup>114</sup> Cooney, M. *The six greatest threats to US cybersecurity*, 17 November 2009, Available at: <http://www.networkworld.com/news/2009/111709-layer8-cybersecurity-threats.html>

of ID theft,<sup>115</sup> hackers,<sup>116</sup> mislaid<sup>117</sup> and sold<sup>118</sup> consumer data which does nothing to assure personal security. Socio-political tensions that mimic Hellenistic times of Plato concerned with governments and morality in his book *Republic*, highlighting the differences in justice between what rulers can do and what they impose on their citizens,<sup>119</sup> or later in the Roman era of poet Juvenal who uttered the phrase 'who watches the watchers?'<sup>120</sup> Both are investigating the concept of 'power' in relation to 'intimacy' as they relates to culture, politics and economics, which are now being thrashed out in a multi-cultural world stage. Bohman's 'public of publics'<sup>121</sup> is now becoming a 'public of intimacies.'

## **ID Rape**

The fear of being tracked has seen the rise of home shredders increase as to the fear of someone stealing our identity and using it for their own gains. ID theft is a radical shift from the muggings and post-office hold-ups at gunpoint afforded by an increasing technological society. Though arguably safer for an individual's physical wellbeing, it is worse from the extent of emotional impact.

However, within our new *Intimate Sphere*, usage of a given service suggests data can now be owned, transported and reused where traditionally it would have not been allowed to go. It is beyond misinformed thinking that resembling Vance Packard's book *The Hidden Persuaders* in 1957, which suggested advertisers manipulate expectations and induce desire for products through consumer motivational research and other psychological techniques.<sup>122</sup> Today's marketing technology to date has been used in a far more hidden and coercive manner that alienates as opposed to opens a respectable conversation between the two parties the way we would do so in real-life situations. It is rifling through ones' garbage bins, having seen what has been discussed or bought and assuming the right of another to claim ownership of that data and then openly come and knock on their door and initiate a conversation with the original owner. The reaction of such intimate pervasiveness takes us beyond ID Theft, into the concept of *ID Rape* where the consumer feels violated in an incredibly personal manner beyond their wishes and as such causes huge backlash and anger.

Within such automated systems, public fear extends to distrust of those in political office or commerce seeking to affect them in a potentially negative way, ultimately rejecting this

---

<sup>115</sup> Information available at: <http://www.ftc.gov/bcp/edu/microsites/idtheft/>

<sup>116</sup> Barkoviak, M. *FBI: Hackers Targeting PR Companies, Law Firms*, 18 November 2009, Available at: <http://www.dailytech.com/FBI+Hackers+Targeting+PR+Companies+Law+Firms/article16871.htm>

<sup>117</sup> Rayner, G. & Porter, A. *Data on 25m benefits claimants lost in post*, 20 November 2007, Available at: <http://www.telegraph.co.uk/news/newstoppers/politics/1569897/Data-on-25m-benefits-claimants-lost-in-post.html>

<sup>118</sup> Fernandez, J. *T-Mobile scandal leaves data protection in tatters*, 19 November 2009, <http://www.marketingweek.co.uk/t-mobile-scandal-leaves-data-protection-in-tatters/3006986.article>

<sup>119</sup> Information gleaned from: <http://www.friesian.com/plato.htm>

<sup>120</sup> Taken from stanza 345 in the *Satires of Juvenal*, online at: <http://www.thelatinlibrary.com/juvenal/6.shtml>

<sup>121</sup> *Supra note 9*

<sup>122</sup> Packard, V. *The Hidden Persuaders* (Brooklyn, NY: Ig Publishing, 1957).

technological progress based on assumption. In discussing targeting with Greg Nikolettos from the privacy movement 'We The People Will Not Be Chipped' (WTPWNBC),<sup>123</sup> stated:

*"What they don't say, but clearly is the belief, is that you are information to be indexed. They are monetising me in a means that is evil when I provide a revenue stream to them by using [their] search of which there is no reward back."*<sup>124</sup>

The Internet Advertising Bureau (IAB) as self-proclaimed governing body for the online industry recently weighed in with their 'Code of Conduct' surrounding behavioural advertising, stressing consumers must have the right to be suitably notified and opt-out of data collection technology.<sup>125</sup> Similarly, the EU Consumer Commissioner Meglena Kuneva has created a new industry body under the *Article 29 Data Protection Working Party*,<sup>126</sup> which seeks to protect individuals right to privacy with regard to the processing of personal data.<sup>127</sup> Commissioner Reding makes it even more succinct,

*"Europe has clear principles concerning privacy and the protection of personal data. They are fundamental rights!"*<sup>128</sup>

## Evaluating the debate

In establishing a methodology for trying to ascertain such huge socio-political changes we need to embrace multiple cultures, traditions, beliefs – in order to strike a balance without creating fear – whether driven by personal, commercial or political means. We cannot rely upon any kind of tangible *action-inquiry* models where we observe and measure impact in one area upon another because much of this discussion is philosophical in its nature as well as potentially volatile. Trying to find a point of reference to unlock this as a mathematical formula  $X+Y=Z$  is not clear cut as there are many 'emotions' clouding judgement when we consider progress. *Experiential learning* methodologies which seeks to isolate problems at a particular stage<sup>129</sup> would not work here, as we are potentially not so much as being able to learn from mistakes, but potentially never recovering from them.

Proceeding with caution and pre-empting where reactions will lay means we cannot blindly try 'field theory', hoping for the best by attempting to ascertain social behaviour and group dynamics.<sup>130</sup> The social research method of *inductive reasoning* to give us an open-ended and exploratory framework

---

<sup>123</sup> More information available at: <http://www.wethepeoplewillnotbechipped.com>

<sup>124</sup> Taken from an email exchange with Greg Nikolettos on 23 November 2009.

<sup>125</sup> Johnson, B. *Code on behavioural web ads launched*, 4 March 2009. Available at:

<http://www.guardian.co.uk/technology/2009/mar/04/iab-guideline-behavioural-web-ads>

<sup>126</sup> Information available at: [http://ec.europa.eu/justice\\_home/fsj/privacy/workinggroup/index\\_en.htm](http://ec.europa.eu/justice_home/fsj/privacy/workinggroup/index_en.htm)

<sup>127</sup> Out-Law News, *Commission forms industry body to solve behavioural advertising problems*, 16 November 2009. Available at: <http://www.out-law.com/page-10526>

<sup>128</sup> *Supra note 28*

<sup>129</sup> Information gleaned at: <http://wilderdom.com/experiential/elc/ExperientialLearningCycle.htm>

<sup>130</sup> Information gleaned at: <http://wilderdom.com/theory/FieldTheory.html>

for us to look at specific observations and measure data points,<sup>131</sup> begin to detect patterns and ascertain regularities within them, formulate some tentative hypotheses, in order to develop some general conclusions as to how things may develop.<sup>132</sup> It means we need leave certain preconceptions or deduced formal logic and explore both sides of the debate in order to find a balanced approach.

The move to the *Intimate Sphere* naturally raises concerns towards what safety measures are in place to protect the unlawful or unwanted sharing of data. Protection of 'choice' and personal freedom needs to be developed in the overlaying of *Intimate* within Habermas' *Public* or *Private Sphere*. Marketing technology needs to move into an open discussion to empower individuals to make choices in an equal manner to those wishing to engage with them, similar to shopping on the high street. If I walked into a store and as a man picked-up a dress, a well-meaning assistant would seek to ask; 'Can I help, sir? Are you looking for something for someone?' The more information I am prepared to give away in dialogue, the greater the assistant's ability to help me make an informed choice of purchase. However, I could equally turn and say; 'No it is OK. I am just browsing, thanks.'

In this instance, the display shows the variety wares on offer to the public at large, i.e. mass-media, and once someone spikes interest the discourse from a shop assistant aiding the conversion journey through a one-on-one discussion. This however is only one aspect of individualization. The location and proximity also has a bearing, i.e. am I walking past the shop as well as prior knowledge, i.e. do I have a penchant for a particular brand, am in in the mind-set for purchase or merely browsing, are all factors that can now be ascertained through data-driven technological solutions based on the sharing of data. This will only be enhanced with greater adoption of near field sensors and seeing a *private* interaction in *Public Sphere* triggering an *intimate* message on a personal screen. Therefore an ethical and philosophical discussion can afford the flexibility to find a path for progress towards the need for a real-time decision engine that offers control back to the masses that both answers the 'no, thank you, I am just browsing' shop-mentality to 'yes, I would like assistance,' understanding that assistance is immediate and may not be relevant tomorrow when I may already have moved on.

## **Paternalistic power**

An EU council was held in Lisbon in 2007 over the concern that Europe is 'lagging behind' the rest of the world in RFID adoption, which will result in holding back the *Information Society*.<sup>133</sup> The EU Consumer Commissioner Meglena Kuneva is concerned with the consumer's rights against progress.

---

<sup>131</sup> Information gleaned from: [http://changingminds.org/disciplines/argument/types\\_reasoning/induction.htm](http://changingminds.org/disciplines/argument/types_reasoning/induction.htm)

<sup>132</sup> Trochim, W.M.K. *Deduction & Induction*, 20 October 2006. Available at: <http://www.socialresearchmethods.net/kb/dedind.php>

<sup>133</sup> Presidency of the Council of the European Union, *On RFID – The Next Step to the Internet of Things*, 14 November 2007. Available at: <http://www.statewatch.org/news/2007/nov/eu-rfid-of-things.pdf>

*“If cloud computing and location-based services become pervasive – as they seem destined to be – the sources and amount of data collected and stored in remote places will multiply. We must therefore ensure that consumers are properly protected in this ever-changing environment.”*<sup>134</sup>

Tony Bunyan states the ‘EU adopts a five-year plan for justice and home affairs affecting many areas of citizens’ civil liberties’ which overrides any national initiative. He highlights the plans from an EU Council Presidency paper for what he terms a *Digital Tsunami*, which will ‘lead to behaviour being predicted and assessed by “machines” which will issue orders to officers on the spot.’<sup>135</sup>

In trying to address the development of experimental scientific revolution in the religious Middle Ages, Sir Francis Bacon is attributed to coming up with the famous aphorism ‘knowledge is power’ in his *Meditationes Sacrae*.<sup>136</sup> The phrase implies that with knowledge or education a person’s potential or abilities in life will probably increase, as both having and sharing knowledge is the basis for improving one’s reputation and influence, the power-shift Habermas’ Bourgeois illustrated. Collation of intimate data of human life through tracking suggests power to either the advertiser or those governing. Paradoxically, it can also be seen as a justification for reluctance to share information as some form of advantage can be gained through the use or manipulation of knowledge. This fits with our term ‘consumer in control’ as opposed to handing over all power to the state where we could assume that as John Dalberg-Acton later states, if ‘power tends to corrupt, absolute power, corrupts absolutely.’<sup>137</sup>

We can complement this with the work of 19th Century philosopher John Stuart Mill’s essay ‘*On Liberty*.’<sup>138</sup> His key sentiment was “over himself, over his own body and mind, the individual is sovereign”. Speaking into the tyrannical Victorian society in which he lived and found oppressive, his work discusses the nature and limits of power that should be legitimately exercised by society over an individual. He sees the answer in the citizens own liberty becoming the moral conscience and yard stick for measuring authoritarian control, especially true for driving advanced surveillance in a society now fuelled by fear of attack. In doing so, he advocated both moral and economic freedom of individuals from the state, which he calls the ‘tyranny of the majority’, wherein through control of etiquette and morality, society is an unelected power that can do horrific things.<sup>139</sup> However, ‘the end can never justify the means,’<sup>140</sup> but rather technology can become a means of shaping change.

---

<sup>134</sup> Out-Law News, *Commission forms industry body to solve behavioural advertising problems*, 16 November 2009. Available at: <http://www.out-law.com/page-10526>**Error! Bookmark not defined.**

<sup>135</sup> Bunyan, T. *The surveillance society is an EU-wide issue*, 28 May 2009. Available at: <http://www.guardian.co.uk/commentisfree/libertycentral/2009/may/28/eu-view-surveillance-society>

<sup>136</sup> NationMaster Encyclopedia, *Scientia potentia est*, 20 November 2009. Available at: <http://www.statemaster.com/encyclopedia/Scientia-potentia-est>

<sup>137</sup> Information gleaned from: [http://en.wikipedia.org/wiki/John\\_Dalberg-Acton,\\_1st\\_Baron\\_Acton](http://en.wikipedia.org/wiki/John_Dalberg-Acton,_1st_Baron_Acton)

<sup>138</sup> Stuart Mill, J.S. *On Liberty*, People’s Edition (London: Longmans, Green & Co., 1913).

<sup>139</sup> Information gleaned from: <http://plato.stanford.edu/entries/mill>

<sup>140</sup> Information gleaned from: <http://plato.stanford.edu/entries/ethics-deontological>

From a sociological point of view, Ferdinand Tönnies presents us two types of social groupings: *Gemeinschaft* and *Gesellschaft*, the former stressing family or community relationships, the latter stressing individualism and groups within society. The importance here is that as opposed to the bonds of blood being thicker than water, *Gesellschaft* sees social ties as more superficial, with self-interest and exploitation increasingly the norm and this was especially true as he criticized the growing popularity of Nazism in his own country.<sup>141</sup> This has value for us to look at the commercial or political drivers within RFID technology that can stand in juxtaposition with what we wish to happen within the intimate privacy of family life, which are seen as invasive and *Big Brother-ish*.

Tim Jordan takes us into further exploration in his book *CyberPower* asks the question 'if knowledge is power, then what kind of knowledge leads to cyberpower?' He discusses three types of power: Power as possession in order to force actions upon another, such as someone wielding a gun; power as social order in terms of accepted norms for maintaining balance as we go about our business, such as adhering to traffic lights; power as domination as seen in equality between people such as one persons wish to play music loud, and the others offense at it as it upsets cultural balance.<sup>142</sup> His argument is that in order for balance to be achieved, personal expression must be held within certain tensions, without technology or the companies behind them overruling the individual's experience. It is a blurring of the socio-political rules that govern everyday life where the premise from a person's level is 'do I want [this] to be a normal part of society when I can't speak freely here or type an email here or write a letter there or in case I do something wrong?'<sup>143</sup>

A philosophical investigation into the Internet by Graham Gordon, questions how the Internet affect our concepts of identity, moral anarchy, censorship, community, democracy, virtual reality and imagination as we step into our technology future? Drawing on parallels in the Luddite movement in the nineteenth century where textile factory workers in Northern England smashed machinery, as they feared their jobs and livelihoods were at stake as they opposed technological innovation and were harshly crushed in their quake. So we now find modern neo-luddites opposing the development of information technology and the *Internet of Things*, whilst technophiles dismiss any concerns as they rush to create a technical 'cornucopia that will remedy all ills.' Gordon suggests that discussions around the Internet are widely exaggerated and will neither achieve the optimism or pessimism being proposed, but will find a symbiotic balance with mankind as those most excited by the technology will also seek to address the problems as and when they arise.<sup>144</sup>

---

<sup>141</sup> Deflem, M. *Tönnies, Ferdinand (1855-1936)*, ed. Edward Craig (London: Routledge Encyclopedia of Philosophy, 2001).

<sup>142</sup> Jordan, T. *Cyberpower: the culture and politics of cyberspace and the Internet* (London: Routledge, 1999).

<sup>143</sup> Doctorow, C. *Britain's new Internet law -- as bad as everyone's been saying, and worse. Much, much worse.*, 20 November 2009. Available at: <http://boingboing.net/2009/11/20/britains-new-interne.html>

<sup>144</sup> Graham, G. *The Internet: a philosophical inquiry* (London: Routledge, 1999).

More recently, Adam Greenfield too offers a note of caution as we rush into the *UbiComp* world stating that designers must build protective measures into this digital environment to maintain a balance between technology and people's sense of wellbeing when all things are visible on the *grid*, from every car to every can of Coke to every breath of energy drawn into our homes.

*"This is not paternalism: in fact, it is just the opposite. Where paternalism is the limitation of choice, all I am arguing for is that people be informed just what it is they are being offered in everyware, at every step of the way, so they can make meaningful decisions about the place they wish it to have in their lives."*<sup>145</sup>

## Addressing consumer fears

The argument has been raised for an open transparency to consumers, written in simple language, so that they have the ability to opt-in and an equal ability to opt-out at any given stage.<sup>146</sup> Thus the data can be used to serve more relevant content, or advertising, to the consumer if they so wish. The fear is consumers will struggle to accept or understand the issues and therefore the need for clarity.

In September 2009 the Federal Trade Commission (FTC) unveil a series of public roundtables to focus on the 'effect of modern technology and business practices on the privacy of consumer information,' trying to balance the concerns for consumer privacy, beneficial use of consumer information and technological innovation.<sup>147</sup> In response to that request, researchers at the Universities of California and Pennsylvania released a study entitled "*Americans Reject Tailored Advertising*" reporting that 66% of Americans reject targeted advertising online; 86% reject such ads when told they are made possible through online data collection.<sup>148</sup> Jeff Cole, Director of Centre for Digital Future at USC Annenberg School has been monitoring global consumer adoption of the Internet over the many years.<sup>149</sup> Asked if this is 'an issue for governmental policy?' He duly responded;

*"Study after study show that consumers do not want any information on their personal lives collected and legislators seem happy to 'come to the rescue.' The problem is that consumers are answering reflexively.... They should be asked if they prefer information collected (with safe guards) as a way to not pay for content."*<sup>150</sup>

---

<sup>145</sup> Greenfield, A. *Everyware: the dawning age of ubiquitous computing* (Bereley, CA: New Riders, 2006). p226

<sup>146</sup> Kawamoto, D. *ISPs: Self-regulation best for ad privacy*, 25 September 2008. Available at: [http://news.cnet.com/8301-1023\\_3-10051244-93.html](http://news.cnet.com/8301-1023_3-10051244-93.html)

<sup>147</sup> Federal Trade Commission, *FTC to Host Public Roundtables to Address Evolving Consumer Privacy Issues*, 15 September 2009. Available at: <http://www.ftc.gov/opa/2009/09/privacyrt.shtm>

<sup>148</sup> Annenberg School for Communication at the University of Pennsylvania, *Americans Reject Tailored Advertising: Study Contradicts Claims by Marketers*, 30 September 2009, Available at: <http://www.asc.upenn.edu/news/NewsDetail.aspx?nid=612>

<sup>149</sup> Information can be found at: [http://www.digitalcenter.org/pages/current\\_report.asp?intGlobalId=43](http://www.digitalcenter.org/pages/current_report.asp?intGlobalId=43)

<sup>150</sup> Taken from an email exchange on 18 November 2009 between Dean Donaldson and Jeffrey Cole.

Though we have come to expect content online being free, the historic quality of both content and advertising are somewhat poorer than a glossy magazine or television. Advertising is the main way to avoid paying for content and the key is to create better quality ads that are both entertaining and informative. People have always had the option to flick past ads in magazines and can now skip ads on television – especially if not relevant.<sup>151</sup> Yet equally they purchase magazines that either include ads, or indeed are fully ad focussed, such as *AutoTrader*, if they consider this a helpful resource to help make informed decisions. In understanding actual consumer behaviour, technology facilitates ‘*interest-based advertising*’ in the same way Amazon product suggestions<sup>152</sup> work, which too caused initial reactions when they launched ‘*personalized recommendations*’ over ten years ago.<sup>153</sup>

The online streaming music service *Spotify* already places both visual and audio ads within its software, allowing consumers to listen to music freely around the world but receive ads targeted against registration data so that ads from their own country / native language are served to them. Consumers can upgrade to a subscription-based model to avoid ads. In this regard the consumer has choice. Though certainly in the mind of one young consumer it does not go far enough.

*“You shud ask costumers wot dare intrests are and then you can target the right ads at the right people. They’ll be more of a chance that people will actually respond to the service/product being advertised.”*<sup>154</sup> ‘Malteasermel’ re: *Spotify* ads. Age unknown.

Although the public has become accepting of ‘personal recommendations’ on websites and with the rise of social media requiring logged-in access for personalised content, so too has their knowledge about cookies, though they seem to both improve and detract from their experience.<sup>155</sup> The rate of cookie deletion amongst web users has gone up to 30% per month,<sup>156</sup> showing a rising trend in ‘*consumer in control*’ and the confidence they have in being able to opt-in and out as they desire.

## Addressing addressability

The implications for behavioural targeting or addressable advertising are already here and will only be exasperated as we move forward through RFID or otherwise.<sup>157</sup> Adoption needs to be grounded in

---

<sup>151</sup> Business Week, *The Sound Of Many Hands Zapping*, 26 May 2006. Available at:

[http://www.businessweek.com/magazine/content/06\\_21/b3985063.htm](http://www.businessweek.com/magazine/content/06_21/b3985063.htm)

<sup>152</sup> Hof, R.D., *Some matches are not exactly made in heaven*, 24 September 1998. Available at:

<http://www.businessweek.com/1998/40/b3598030.htm>

<sup>153</sup> Jacobi, J.A., Benson, E. & Linden, Gregory D., *US Patent 7113917 - Personalized recommendations of items represented within a database*, 26 September 2006. Available at: <http://www.patentstorm.us/patents/7113917.html>

<sup>154</sup> Information gleaned from: <https://www.spotify.com/blog/archives/2008/07/31/ads-in-spotify/>

<sup>155</sup> eMarketer, *Cookies Confuse Some Consumers*, 27 July 2007. Available at:

<http://www.emarketer.com/Article.aspx?R=1005189>

<sup>156</sup> ComScore, *U.S. Client Newsletter - May 2009 Edition*, 1 May 2009, Available at:

[http://www.comscore.com/Newsletter/2009/May/US\\_Client\\_Newsletter/\(language\)/eng-US](http://www.comscore.com/Newsletter/2009/May/US_Client_Newsletter/(language)/eng-US)

<sup>157</sup> Xiller GmbH, *The potential and dangers of advertising with RFID*, 12 August 2009. Available at:

<http://www.pressreleasepoint.com/potential-and-dangers-advertising-rfid>

a two-fold approach. Firstly there needs to be commitment for investigation in the areas surrounding personal security – how to allow open access when needed and lock-down when not. It has to be proven to be infallible. Secondly, there needs to be total transparency on behalf of the advertiser and complete control by the consumer for addressable advertising to move forward.

Jim Morris of Carnegie-Mellon University proposes a general method for approaching the security issues: ‘build computer systems to have the same privacy safeguards as the real world, but no more, so that ethical conventions will apply regardless of setting. Given the ease in scamming credit cards, this may not go far enough, but companies like RSA Laboratories are researching ‘new techniques to help protect the privacy and security of businesses and consumers in RFID environments.’<sup>158</sup>

Global marketing communications company WPP and their agency Ogilvy have worked alongside the Future of Privacy Forum (FPF) to create icons that clearly show consumers when ads are behaviourally targeted. Concerned privacy policies were not being read or understood, a simple graphical touch-point to be used on websites and with ads to show open transparency to consumers when relevant ads are being served.<sup>159</sup> The concept hopes to gain consumer confidence in the same way a ‘padlock symbol’ was introduced to browsers to denote when secure pages were being used in e-commerce in order to provide a visual aid whilst online transaction were taking place.<sup>160</sup>

This follows the argument for Industry self-regulation, which is keen to promote an educational process to show the benefits and the ease of moving in and out of such targeting programs, from both a content and advertising standpoint. Education around content is easier for the public to palate, where as advertising automatically creates a reaction as people do not want to feel they are being exploited for commercial gains. In this regard the ability to accept advertising as part of life is primary – against having to pay for content – and the secondary issue is the fact that advertising can equally be more relevant. E.g. as a single man, I never have to watch ads for feminine hygiene products on my TV ever again, and instead can have the choice to see ads about new cars or gadgets instead, such as demonstrated with Invidi’s addressable IPTV systems.<sup>161</sup>

The notion of trading content for advertising or even technology devices themselves in return for advertising is going to see a rise in consumer acceptance of addressable advertising as they realise the value exchange. The model for consumer adoption will require users to freely volunteer demographic and personal information and to specify the sort of advertisements they will accept.

---

<sup>158</sup> *Supra note 103*

<sup>159</sup> Future of Privacy Forum, *Future of Privacy Forum Unveils New Privacy and Personalization Symbols Finalists*, 4 December 2009. Available at: <http://www.futureofprivacy.org/2009/12/04/future-of-privacy-forum-unveils-new-privacy-and-personalization-symbols-finalists>

<sup>160</sup> *Id*

<sup>161</sup> More information available at: <http://www.invidi.com/>

There are already trials in operation where mobile phones are given away alongside free voice bundles and SMS text packages if consumers agree to accept advertising through the likes of Finnish company *Blyk*, under the direction of former Nokia president Pekka Ala-Pietila.<sup>162</sup> Crucial to Blyk's system is creating advertisements that attract users, so subscribers are asked to fill out a questionnaire on the Internet that includes both personal details and interests and then advertisements sent to the phone are based on those answers. Antti Ohrling, co-founder of Blyk explained that, "we intend on only advertising information that people want and in a fun way. To succeed, we must offer an enjoyable and simple user experience."<sup>163</sup>

## **Towards a transparent consumer model**

Though much has been advanced in terms of techniques for people to part with personal data in terms of understanding where consumers are at, very little seems to exist in the realms of directly asking them outright, nor helping them to see the benefits of sharing this data for the benefit of making informed decisions within an advertising context. Much of the commentary online implies that consumers should have choice and opt-in capabilities. The question remains on how to go about this. As part of this research both quantitative and qualitative research methodologies were applied through email and video interviews as well as conducting an online survey – covering people within and outside of the advertising industry – the detailed results of which may be found in the Appendix.

**'The overwhelming results show that as they see the speed of change towards digital content, 78% think advertising has a key role to play, and >65% think the same level of control they have come to enjoy within social media should be applied to advertising.'**

When asked to elaborate, one respondent summed it up as,

*"When I'm looking to buy a product, I want advertising to hit me like a frenzy. When I'm not necessarily in the marketplace for anything in particular, I want advertising to be background noise that I can tune into or tune out as I please. And I don't want too much personalisation in my advertising - I want to be exposed to random stuff! I want my horizons expanded!"*

If we are to take the view that technology can indeed assist people making informed and potentially safer decisions, then we need to evaluate the heart of the consumer resistance – is it the human right to privacy or the fact that all advertising is evil? This depends upon a particular circumstance. If we were to build an open and flexible system where consumers could tell advertisers what they wanted as opposed to being told you need this, this would radically changing the notion of underhand marketing methods employed to date by playing advertisers at their own game saying 'I will tell you this, but I expect this in return – and if you don't like I will simply blacklist you'.

---

<sup>162</sup> Crampton, T. *Coming to (free) mobile phones for youths: Ads*, 1 Novmeber 2006. Available at: [http://www.nytimes.com/2006/11/01/technology/01iht-mobile.3360731.html?\\_r=1](http://www.nytimes.com/2006/11/01/technology/01iht-mobile.3360731.html?_r=1)

<sup>163</sup> *Supra* note 154154

Modern technology has shown us that feedback on Amazon influences purchase decisions, or Facebook's 'like it' technology has afforded consumers an incredibly positive power shift. The trade off would actually give advertisers unparalleled access to consumer level data, all willingly given up by consumers and will assist in tacking media wastage through insight and relevance. It is what loyalty cards have proven for years, without being upfront. In addressing consumer concerns and reactions, and drawing them on side, we can surmise the discussion would go as follows:

- Do you wish to receive advertising? [Y/N] – No
- Do you wish for advertiser to track you? [Y/N] – Definitely NOT!!
- Do you wish to pay for content access online? [Y/N] – Mostly not
- Would you like to receive content based on your preferences? [Y/N] – Possibly
- Would you accept advertising in exchange for free content? [Y/N] – Possibly
- Would you like to receive discounts from your favourite brands? [Y/N] – Yes
- Would you like control over what type of ads you would like to see? [Y/N] – Yes

To change the necessary behaviour anticipated is through education as to a value exchange program, which would need to be linked to a rewards mechanism from the advertiser. The requirement is to build a relationship that can then be enhanced further if the consumer is prepared to accept ads:

- Do you want to see feminine hygiene ads? [Y/N] – No, I'm a guy
- Do you want your children to see fast-food ads? [Y/N] – No, obesity  
(*Ok, so you really would like a choice, and accept this is targeting...*) – Hmm, ok
- Would you prefer to see car and gadget ads? [Y/N] – Yes
- Would you prefer your children to see healthy food ads? [Y/N] – Yes
- Would your wife be interested in high street fashion ads? [Y/N] – Yes

The concept described is based around a mobile app / website that would resemble a loyalty programme, in a similar vein to *Nectar* online.<sup>164</sup> Each person is required to set up an account, which includes personal data including all demographics, age, gender, home address, chosen language, etc. It stands more chance if the concept is wrapped up in a fun and entertaining 'game-like' concept as shown through the likes of *FourSquare* collecting 'mayorships'. The options to add family members under a group programme, link these into purchases for capturing loyalty data, linking to friends to passing over points or suggestions as gifts, receiving suggestions from friends, etc.

The user is able to select their favourite brands as a way of keeping in touch with them as well as generic categories they don't mind seeing (a minimum number is required). They can also highlight brands or categories the never want to hear from. The user also is able to select types of offers

---

<sup>164</sup> Further information at: <http://www.nectar.com>

based upon things they are currently pursuing, e.g. buying golf clubs today, booking holiday tomorrow – then subsequently able to turn these items off as and once fulfilled and select new ones – now I need a TV. At any time a user can go back in and select what they wish or do not wish to receive. All ads would carry a visual recognition of being targeted by carrying the proposed logo.<sup>165</sup>

Advertisers can also select target demographic data to address certain ads towards across devices or choose more premium rewards to more loyal consumers, which would give a confidence in ROI. Advertisers would be charged a premium for delivery of their messages. Advertisers finding themselves blacklisted it means they have a reputation that needs to be addressed and acceptance becomes viral through people recommending them to others. Rewards could be set-up to achieve this. Once the consumer has caught the concept, there are further levels this can be taken to.

- Do you want to be able to change your preferences regularly? [Y/N] – Yes
- Using checkboxes, select your favourite brands [Diesel, Apple, Audi] – Check
- Using checkboxes, select your disliked categories [Feminine Hygiene] – Check
- Using checkboxes, select today's choice [Long haul holidays, golf clubs] – Check
- *(If I can convince you this is totally safe, do you wish to proceed)* – Hmm, ok
- Would you prefer to see these types of ads when online? [Y/N] – Yes
- Would you prefer to see these types of ads on your mobile? [Y/N] – Possibly
- Would you prefer to see these types of ads when on your TV? [Y/N] – Yes
- Would you prefer to see these types of ads when on billboards? [Y/N] – No, lock
- Would you like discounts from your brands sent to you by email? [Y/N] – No
- Would you like mobile coupons as you walk into relevant stores? [Y/N] – Yes

The user is also to register each of their Internet enabled device; computers both home and work, mobile phones, IPTV, Set-top boxes, gaming consoles and any other devices they currently receive ads upon. Supposing RFID is enabled either on a loyalty card or mobile device, this can be widened to areas out of home through a secure personal network. A level of security would exist to not transmit data in open areas if they did not wish, but only devices they have chosen to register. They can opt-in and out of subscription-based content, disabling ads in areas that they currently pay, so selected media would not receive ads where as in other areas they would. Ads are always targeted to them in their chosen language irrespective of where they find themselves in the world, potentially in any device they happen to be in front of. This central system can also be linked to preferences on content from books, to TV shows, to movies and games, etc. Thereby giving a consumer total transparent control over all advertising and content both online and any commercial *UbiComp* environment in which they choose to participate.

---

<sup>166</sup> *Supra note 2*

## Reflection on the proposal

Habermas correctly identified the power shift from the landowners back to the individual in their private and public dealings, and asserted this as the fabric of what it means to be human.<sup>166</sup> It is the respect of the individual's identity and knowledge, and as Reding states 'privacy is a fundamental human right!'<sup>167</sup> Yet as criticism shows, Habermas' Bourgeois act merely as a catalyst of change but do not fully reflect the plethora of intricacies shared across society. Technology has brought about a closer alignment of society's strata through open global access, especially amongst the youth. Within in a modern context we see Tönnies' *Gemeinschaft* in the social media communities of interpersonal relationships and *Gesellschaft* in interactions with power bases of commercial and political entities.<sup>168</sup> The inter-connecting point of individuals seeking information from peers brings a power back to a public who can cause manufacturer's of products to succeed or fail depending on reactions in the new *Public Sphere 2.0* but equally does not answer the challenge posed by the UbiComp *Intimate Sphere*.

Answering addressable advertising and personalisation of media starts with a complete rebuild of the infrastructural foundations and underhand methods in tracking which are seen as both intrusive and largely unwanted. The powerbase needs to shift to the 'consumer in control' in order to provide an ethical framework and balance, in open and frank discussions with the people they are wishing to do business with. If anything web 2.0 and social media has taught us it is indeed a two-way conversation. This next iteration, call it web 3.0 – *Intimate Sphere* – will demand even greater respect, openness and mutual trust. Consumer opt-in must be sought at the highest level lest backlash results in lock-down.

If consumer focussed media created a value exchange via product discounts for them to participate through behaviour that also suffices the advertiser's needs for granular metrics, it would allow information, content and advertising to all work in a more harmonious way. It could lead to new commercial opportunities such as an advertising trading platform, based upon knowledge freely given and updated. Appeasing governmental concerns demanding opt-in tracking, and providing relevant security is set in place, it could appease privacy advocates also. If consumers embraced the concept and found it of value, it could also pave the way for a new code of practice and regulatory authority in which the consumer is very much at the centre in a way described by Adam Greenfield<sup>169</sup> – sufficing both current targeting requirements as well as provide a platform for growth across future ubiquitous networks. To follow Bohman's thinking,<sup>170</sup> developing a 'public of intimacies.'

The natural fear here is that any socio-technical development will equally become a target for political entities seeking to maintain a sense of control – governments would simply demand access

---

<sup>166</sup> *Supra note 2*

<sup>167</sup> *Supra note 28*

<sup>168</sup> *Supra note 141*

<sup>169</sup> *Supra note 159*

<sup>170</sup> *Supra note 99*

to the data. As Jordan concludes, we must hold this new *CyberPower* within certain cultural tensions in order to not overrule the individual's experience.<sup>171</sup> This takes us beyond Habermas' Bourgeois who act as middlemen in to affording every single individual the right to control their own privacy and not allow either technology or commercial entities the overarching power. Who then would control this new consumer database and under what premise should it and can it exist lest it become a target of both commercial and political control in its own right, as Jordan warns? Perhaps the answer lays in giving control of the build back to the public in a kind of an open-Wiki approach?

The system proposed seeks to strike a rational balanced development of information technology alluded to by Graham,<sup>172</sup> whilst providing the level of control to an Individual demanded by Mills,<sup>173</sup> though I would argue it is taking a more deontological approach to provide an ethical framework based on the premise that is intrinsically good, irrespective of the outcome. Using *inductive reasoning* to explore all the aspects of developments to date in both addressable advertising online and through RFID deployments, it could be said that the concept moves from a propositional to a procedural viewpoint as it moves from *knowing about* the issues to potentially *knowing how* to solve the issue. This would need to be further explored now through *deductive reasoning* to see if the theory stacks up through implementation and observation to see if a confirmation of the theory can be achieved without violent consumer reactions.<sup>174</sup> However, it is a balance within the *Intimate Sphere* by taking the concept of using intimate information and using it within Habermas' *Public Sphere* whilst allowing them to fully protect their private concerns as an individual.

In as much as it is trying to positively align with the powerful forces of change that are affecting our world, the proposal would provide the basis for a macro-environmental PEST (Political, Economic, Socio-Cultural and Technological) analysis that attempts to manage rapid, major change and tackling both the new opportunities and arising threats.<sup>175</sup> In order to actually bring any weight to this concept from an R&D point of view, I would need to drill deeper into a more granular investigation of the proposal in utilising something like a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis in order to fully develop a business case in developing this strategic alternative.<sup>176</sup>

## Conclusion

The discussions around any kind of personal addressability are incredibly contentious and volatile and as shown invoke strong reactions. We have views from ban it at all costs, to privacy being

---

<sup>171</sup> *Supra* note 142

<sup>172</sup> *Supra* note 144

<sup>173</sup> *Supra* note 138

<sup>174</sup> Information gleaned from: <http://www.socialresearchmethods.net/kb/dedind.php>

<sup>175</sup> Information gleaned from: [http://www.mindtools.com/pages/article/newTMC\\_09.htm](http://www.mindtools.com/pages/article/newTMC_09.htm)

<sup>176</sup> Information gleaned from: <http://www.netmba.com/strategy/swot>

overrated, to discrepancies in government policies all adding to the confusion. There are positives and negatives of gargantuan proportions on all sides. Certainly my own views have warmed to the potentials of this technology and assisted towards developing a solution during the course of this research. Regards RFID we are dealing with a fledgling technology and moving speedily into uncharted territories on a global level with huge implications. No one is truly able to predict the impact on culture and societies around the world. Mankind has never had to face anything quite so alarming before, in such haste. Technologists and marketers must throw notes of caution and wisdom and set boundaries lest the balance is irrevocably reversed against future generations, as the promise of utopia becomes a dystopia simply through technology overtaking us.<sup>177</sup>

So are the concerns justified over this technology being used to snoop and track people by any pervert, thief or rogue state? Absolutely and I say wholeheartedly, yes! The read-write capabilities actually intensify the concerns as the RFID chips become more powerful and self-aware. And to these ends we cannot dismiss this as conspiracy or paranoia, or brush humans aside for capitalist commercial gains. Transparency and education must be afforded to the consumer. If RFID chips are fixed and unable to be deactivated – how can a consumer opt-out? Especially if required to return items as proof by means of electronic billet? Despite the hype they are NOT deactivated once leaving the store... and certainly not in a way that cannot later be reactivated, potentially by the wrong people. How this will be managed is a matter for the technologists who develop usable security.<sup>178</sup>

In as much as the industry needs to self regulate and put guards in place, it needs do this in co-operation and full regard to governing laws in open and frank debate. The danger of any one party working in isolation is for things to go askew.<sup>179</sup> Fluidity for development in a fast-paced environment reveals that legislation is often not in a position to accommodate at quite the same speed.<sup>180</sup>

Commercial agencies data mining without regard thinking ‘they own the data’ and missing the human face of those numbers. Consumer opt-in is therefore not enough; safeguards as to what happens to the data beyond must be held in the highest regard away from commercial or political agendas where assumed usage is being undermined by continually changing policies. Discussion over RFID from a commercial and national security perspective cannot be seen as mutually exclusive issues.

Privacy is a basic human right. We then should be able decide what, where and when, no one else.

---

<sup>177</sup> For further information see: <http://deandonaldson.com>

<sup>178</sup> Supra note 103

<sup>179</sup> Marshall, J. *EU Proposal Could Cripple Common Web Ad Practices*, 6 November 2009. Available at: <http://www.clickz.com/3635590>

<sup>180</sup> Fildes, J. *Web giants unite against Digital Britain copyright plan*, 2 December 2009. Available at: <http://news.bbc.co.uk/2/hi/technology/8390623.stm>

# Appendix

## Email interviews – 17th Nov 2009

### Respondents

- **Dr. Katherine Albrecht**, Ed.D. - Director of CASPIAN (Consumers Against Supermarket Privacy Invasion and Numbering)
- **Dr. Jeffrey Cole** - Director of the Center for the Digital Future at USC Annenberg School for Communication & Journalism.
- **Gal Trifon** - CEO and co-Founder of MediaMind Technologies, Inc. (Digital advertising campaign management solution)
- **Michael Hanafee** - Senior Vice President Global Marketing at Invidi Technologies (Addressable interactive television advertising solution)
- **Greg Nikolettos** - Founder of WTPWNBC.com (We The People Will Not Be Chipped)
- **Prof. Kyoung Jun Lee**, Ph.D. - Visiting Professor of MIT Mobile Experience Lab (mobile.mit.edu) and Professor of School of Management, Kyung Hee University, South Korea

### Responses

1. Your views on the validity of targeting within digital advertising and do you feel there is a significant case for commercial justification?
  - **Katherine** - Thanks for asking my opinion. As you can guess, I am opposed to the idea of marketers watching and following us and our purchasing habits.
  - **Jeff** - I think this is the fiite of advertising both digitally and, through set-top boxes, on television. Advertisers are no longer very interested in programmers showing how many people saw the program containing the commercial. They know there is little engagement. Targeting allows an overall smaller spend (although more per person) and the ability to deliver ads that the consumer might actually want to see and not view as annoying or intrusive. Finally, the advertiser can learn which half of the advertising budget is wasted and act accordingly.
  - **Gal** - I'm a fan of targeting / retargeting and addressability within the limitation of dependency on unanimous past and present context, and engagement / action. I feel that commercial justification is in creating value in unsold inventory and moving people more effectively through the conviction cycle as well as expending distribution potential for hi-quality branding content. I'm not for targeting based on personal information and cross-referencing of personal data and I'm still not sure how I vote on "intention" based targeting that is triggered by past commerce / research activity
  - **Michael** - There is indeed validity for targeting addressable advertising because it is more efficient in getting the right message to the right person and it eliminates waist. John Wanamaker's famous phrase is still used in the advertising business today: "Half my advertising is wasted, I just don't know which half." Cable, satellite and TELCO television service providers are now rolling out targeted addressable advertising that not only gets the right message to the right person but it allows multiple commercials to be delivered in a single commercial break with each commercial going to a different market segment or demographic. The lift in advertising spend per commercial break is significant and

allows all players to share in the revenue value chain. The players are forming new alliances, where they are rivals in one area of business they are now working together in another.

- **Greg** - Yes there is a value if its an opt in service ie if I purchase RFID products , there should be legislation there to alert me about the product being embedded . How the infrastructure would be in place is another thing altogether. Id look at Neuromarketing as well as that's going to be the next big thing which you should start discussing . Neuromarketing basis its 'fMRI' on the basis that it would cost less to bring a product to market but beaming a 'bolt' into my brain should require a warrant shouldn't it? I would consider that warrantless search of my private person.
2. If you have any exposure from a product viewpoint to RFID/NFC and uses in advertising trials and/or reactions any information you can share at all, or point me in the direction of?
- **Jeff** - I have been following RFID in its uses for inventory but do not know of any uses yet in advertising. Of course any sense of what sells and at what rate can be harvested into advertising.
  - **Gal** – I was previewed to some concepts at a high level in the past but nothing specific to share
  - **Michael** - I'm familiar with the tracking devices and was talking with the CEO of my company recently about their integration in clothing and mobile phones for targeting individuals when passing retail establishments. I don't remember whom we were talking.
3. Any thoughts on ethical code of practices or safeguards you are adopting (within your business) in forwarding addressable advertising to the public?
- **Jeff** - See below.
  - **Gal** – in our case we should refrain from cross-brand targeting at any level
  - **Michael** - Privacy is a foundation principle upon which INVIDI Technologies Corporation operates. We purposely choose a technology approach that uses a system of algorithms, vectors and third party Nielsen program information that describes the audience of different television programs. INVIDI never knows any personally identifiable information, program name, movie titles, channel and does not store any information, unlike the internet. In our market trials, Comcast sent opt-out letters (one a week for four weeks) to subscribers allowing them to opt-out of addressable advertising in which well under 10% opted out.
  - **Greg** - I am a man of my word. I know that sounds lame but we don't exploit our user base unless we can honestly feel we can offer them a service/benefit or angle over their competitor. Sorry to bore you but I am very old school :)
4. Do you think this is an issue for governmental policy or self-regulation within the digital industry?
- **Katherine** - As a Libertarian, I am not a fan of government regulation except to the extent that it prevents nonconsensual data collection and fraud.

- **Jeff** - Governments seem eager to get into this issue. Study after study show that consumers do not want any information on their personal lives collected and legislators seem happy to "come to the rescue." The problem is that consumers are answering reflexively. They are simply asked if they want information collected. They should be asked if they prefer information collected (with safe guards) as a way to not pay for content. In other words, if they are so concerned about the collection of information, are they willing to pay to avoid it. Then the answers change considerably. Consumers also are not familiar with advertising that may understand who they are and deliver useful and welcome information. Clearly governments are willing to regulate and in my world that should be avoided. What is needed is for brands and companies to clearly and fairly state what is being collected and why and what will be done with that information. That needs to be accompanied by clearly understandable privacy statements and serious penalties for those who may violate what they promise and a clear opt-out.
  - **Gal** – yes. I think the industry proved not being able to protect against past hazards such as spyware, inappropriate contextual targeting and more
  - **Michael** - I believe the government will ultimately implement policy due to the wide array of companies participating in targeted addressable advertising and their inability to reach consensus and a standardized approach. These companies include: service providers, data providers, research and measurement, hardware, software, traffic and billing and the broadcast television and cable programming companies – all have voiced varying levels of opt-in and opt-out.
  - **Greg** - Yes when IBM starts proposing to Gov't bodies to build RFID into infrastructure so they can 'dominate' the flows of air, water, energy , traffic , you name it , Gov't HAS to regulate it. Its been regulated by the tech giants as we speak so either way the landscape is being shaped. As Government relies on tech giants they cant quite grasp what authority they are handing over to them.
  - **Kyoung** - I believe you know about the “content match advertising” in Web and traditional newspapers, magazines, and TV. Our RFID Tag Match Advertising is just the NFC or RFID version of “content match advertising”. Therefore, all the policy, ethics, and legal issues will be almost the same with those of existing “content match advertising” in other medium.
5. Any personal thoughts from a consumer's point of view in relation to how you feel about data collection and re-use from an advertising perspective, and where do you feel the limits lie?
- **Katherine** - The system you describe is repugnant.
  - **Jeff** - The limits are as stated above. I think this is an extraordinary exciting opportunity for advertisers and consumers. We may see CPMs rise by 1000% per cent finally establishing a viable way to economically support digital content. Consumers, as I mentioned, will potentially receive advertising that is useful and not intrusive.
  - **Gal** – all my answers above with the exception of number 4 reflect my personal consumer view. I actually appreciate ads that are contextually targeted in offline and online content. I've learned to appreciate some engagement-based targeting but I'll freak-out knowing that my data is out there for vendors to trade and create commercial value from based on their judgment of what's right and wrong.

- **Michael** - From a personal and consumer point of view, I believe the single most important customer service tool in the history of the pay television industry, for this generation and those that follow would be for MVPDs (multi channel program distributors) cable, satellite and telco service providers to give consumers an application (not for profit) that will CONTROL of set top box monitoring/data gathering and Control how their personally identifiable can be used and distributed to third parties. This is a solution that Mark Heyner and I envisioned for television privacy when we filed our TV Control patent in March 2003 and awarded November 2008. For a quick understanding read the Abstract at the link below and/or see U.S. patent # 7,448,058 at the United States Patent and Trademark Office.
- **Greg** - I feel the limits have been breached a long time ago but now the implementation of monetizing me will become more apparent.

## Video interviews – 1st August 2010

Answers from colleagues and agency representatives on the changing notion of consumer habits.

1. What digital gadget can you not live without and why?
2. Is the data being collected actually being reused to retarget consumers or is it all pointless?
3. How much data would you give up in order to get a targeted ad?

Please see supplied video files.

## Survey Online – 13th Nov 2010

<http://www.surveymonkey.com/s/futureofadvertising>

Total Started Survey:	<b>100</b>	
Total Completed Survey:	<b>93</b>	<b>(93%)</b>

- **Gender**

- |           |       |      |
|-----------|-------|------|
| ○ Male:   | 66.7% | (66) |
| ○ Female: | 33.3% | (33) |

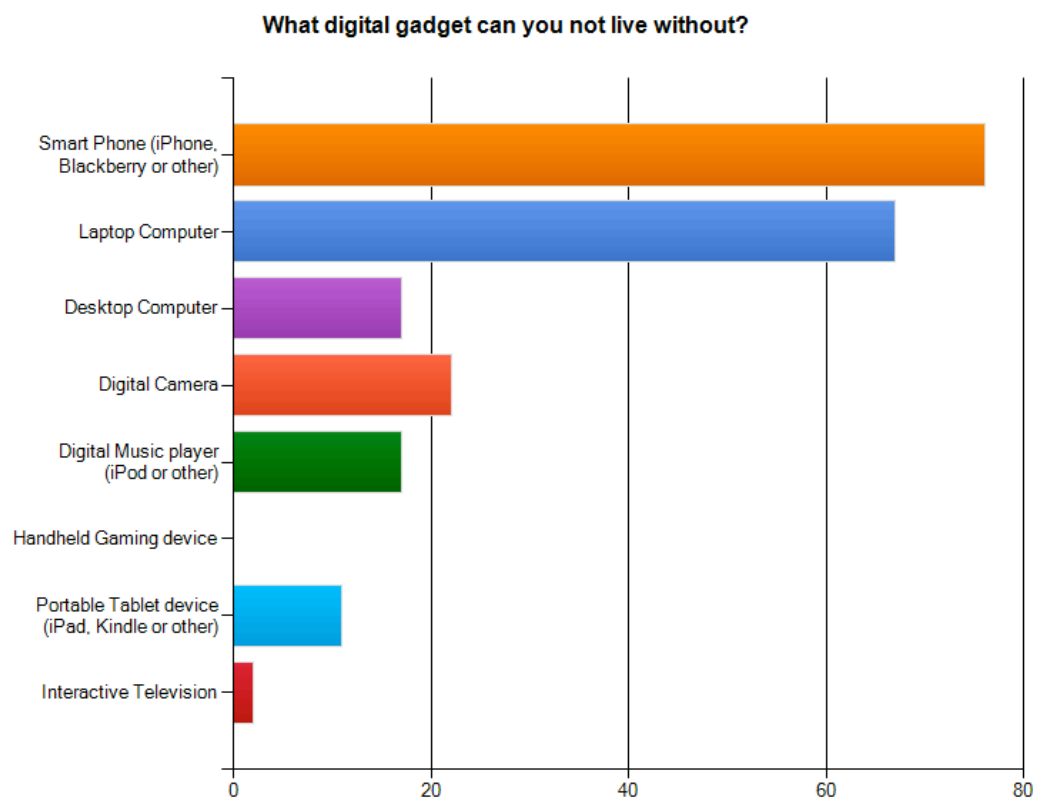
- **Age**

- |               |       |      |
|---------------|-------|------|
| ○ Under 20:   | 0.0%  | (0)  |
| ○ 21-30       | 32.3% | (32) |
| ○ 31-40       | 49.5% | (49) |
| ○ 41-50       | 17.2% | (17) |
| ○ 51-60       | 17.2% | (17) |
| ○ 61-70       | 0.0%  | (0)  |
| ○ 71 and over | 0.0%  | (0)  |

1. **What digital gadget can you not live without?**

- |  |       |    |
|--|-------|----|
| a. Smart Phone (iPhone, Blackberry or other) | 78.4% | 76 |
| b. Laptop Computer                           | 69.1% | 67 |
| c. Desktop Computer                          | 17.5% | 17 |
| d. Digital Camera                            | 22.7% | 22 |
| e. Digital Music player (iPod or other)      | 17.5% | 17 |

- f. Handheld Gaming device 0.0% 0
- g. Portable Tablet device (iPad, Kindle or other) 11.3% 11
- h. Interactive Television 2.1% 2
- i. Other:
  - 1. wireless mouse
  - 2. none - but i had to click one so its the phone i suppose
  - 3. Mouse
  - 4. None of them
  - 5. i can live without any digital gadgets
  - 6. Kindle
  - 7. my wife's GPS
  - 8. Hard Drives for Backups
  - 9. I can live without all these with no issue



**2. Why do you feel you cannot live without this / these device/s?**

- o Internet access
- o "1. Smart phone for keeping in touch and reference purposes (phone, e-mail and internet etc) and as a handy digital 'Swiss Army' gadget, e.g. camera, voice recorder, diary, music player etc.
- o 2. Desktop computers are at the heart of my recording studio, which is in turn the heart of my business."
- o I use them for organising my life (business and personal). Without them I would find keeping in touch and organisation much harder
- o all my contacts exist on my phone and computer. my phone has replaced my wallet from carrying important stuff with me.
- o These items make life so much easier and more fun!
- o Constant connection to internet.
- o I use my phone to take photos for my work, and I use the laptop to write up my work files during the day - could not be done on a desktop as I'm always out and about.
- o Used all the time for everything. From social networking to shopping.
- o I feel I need something... technology makes my life easy...
- o They have become as part of daily routine as washing and eating
- o It's like having my life in my pocket. I refer to it constantly for information.

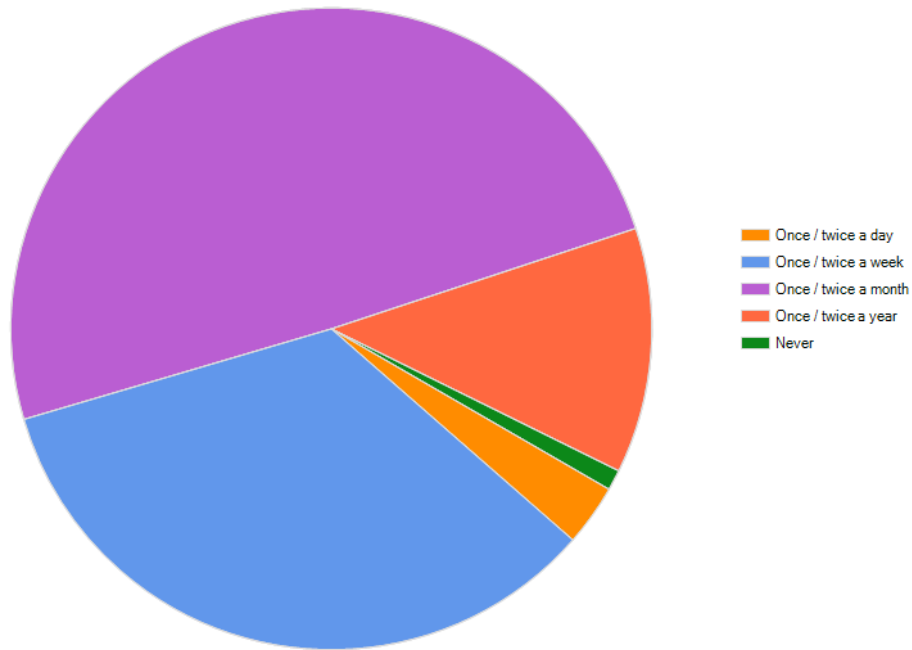
- *I have everything at the touch of my hand.*
- *My profession is marketing where communication is the key. I deal in digital media and it needs research.*
- *These are business tools.*
- *Not being updated whenever I want.*
- *Feel cut off from the outside world*
- *N/A*
- *"stay connected whenever, wherever*
- *work flexibility"*
- *Because I like to know what is going on where and when*
- *Connectivity, Content Capture, Storage*
- *To keep in touch with my work, news and family/friends.*
- *Complete connection to the world*
- *Communication is very important for growth in career and updates in personal life.*
- *Basic for work and constant updates with friends & family.*
- *They are all great*
- *Keeping up with business and personal matters everywhere.*
- *It brings me salary at the end of each month*
- *Combination of communication device, planning tool, content consumption and memory extension to all aspects of life*
- *work related - keep in touch with friends & families*
- *well, focusing on my wife's GPS for a sec - it is extremely time consuming explaining to my wife where to go when all I have to go by is "I'm in an intersection looking to the right".*
- *Connects me to my email, calendar, and contacts 24x7x365*
- *I earn a living with my laptop. Public transport without an mp3 player is simply not on and my camera contributes to a significant chunk of my leisure activities.*
- *daily tool to be connected, work and sort personal things*
- *My Connection to the world*
- *This allows me to develop more personal creative output to the people that I care about*
- *It's how I stay connected and communicate and also get relevant information that is important*
- *constant ability to keep up to date with friends. maps on the move. sports highlights*
- *They have become essential to my everyday life activities. Keeping in touch with friends and family plus also as a source on entertainment and my hobbies.*
- *need to keep in touch with people, listen to music, not get lost, get email*
- *Because I need to go online and connect with my friends and the world.*
- *addiction*
- *There is a bug in this question - if i choose other i still must choose one of the listed devices.*
- *Use it every 5 minutes.*
- *i feel lost*
- *however these gadgets are extremely useful, they are just gadgets. by essence, they are not essential.*
- *Because they enable to capture life, work and keep in touch with others*
- *Used for communication, research, work file storage, personal admin file storage, sentimental file storage, diary planning (family events, social events, holidays etc), entertainment, news updates*
- *Runs my professional and personal life.*
- *Connects me to the world*
- *Connectivity with outside world*
- *easy access to search, stay connected with friends and family, buy products, source of information and knowledge, etc.*
- *no work or play makes david a dull boy*
- *It's a tool for key tasks such as working or accessing the web.*
- *I can always be on top of my work, no matter where I am.*
- *Keep me connected to information, which I want when I want it.*
- *It's how I communicate with the world.*
- *because it is a phone/internet/email/sms all in one*
- *It's my resource for communication, information and entertainment, and it's portable so it's always with me.*
- *disconnected*
- *I like the internet - it feeds me all the media I like to consume. Also, it's quite a useful tool for running my life.*
- *all in one - contact, address book, video player, music, gaming, photos, internet, social, podcasts, and more.*
- *I like to stay connected*
- *I use it everywhere...from the bus to the office to meals to my bed. I can check my email, Facebook page and see what's going on in the world anywhere at anytime.*

- *I would say television, phone, and laptop computer are so ingrained in my day to day life. I picked the laptop because I can call people from it and watch television and movies on it as well as keep myself entertained other days.*
- *In touch all the time. Entertainment, business, and family all at my fingertips*
- *i could quite happily throw them all out of the window, but all of this is my job*
- *Couldn't live without my iPhone as I seem to use it for so many things ie, communicating with friends and family, recipe apps, listening to music, apps for kids to play, Internet, diary,etc. I also couldn't live without my digital camera as I love capturing every moment of the kids growing up!*
- *"Unified messaging on the move. Photo share on the move.*
- *Central store of family data."*
- *They keep me connected to my family, friends, work and help document the special moments in my life.*
- *Could not run my business without it as I now have a website and need to look at emails on the go*
- *Being able check mail and use Internet whilst out ( I can utilise dead time whilst I'm out rather than having to put time aside when I get home to be on a computer) contactable with children for urgent stuff whilst out , music for running. My kids love it for games!!*
- *Communications and productivity*
- *They are fun, stressfree and most importantly they make me feel good and help me forget about my everyday worries. It's also a channel of communication between my family, friends and me, they help me keep up to date with what's happening around the world.*
- *They are my second brain, my instant connection to external knowledge, contacts and then productivity on the move*
- *out of touch..... can't check email, facebook etc*
- *Communication, information and transaction*
- *Phone necessary and laptop for work*
- *Its a part of my life and how i stay in touch with both family and friends. These devices also allows me to share my life what im up to and where I am beyond just telling them - I can show them via photos and video - It's story telling and sharing. It also works reverse I use it to keep in touch and involved in my friends and familys life via these devices. These devices are also how we do business and work today so they are important not only on a personal level.*
- *Information and social reasons*
- *Increasingly, all the functions of the other gadgets are available - and high quality in the Tablet, smart phone or laptop*
- *Communication, information, pornagrification*
- *Laptop is critical for creating documents and presentations and email. Phone is critical for email and talking.*
- *i spend so much time with them now...my life would change overnight if I didn't have them (for the worse, not the better)*
- *they carry all my content and tools I use day in and day out*
- *With a 3-month old at home, the camera has become the family archivist and we use the laptop to share the photos. Laptop is the connection to the outside world and an invaluable resource on many fronts. iPod / music keeps me sane, especially at the gym.*
- *"Increases productivity*
- *It is my passion to use these devices to do my work"*
- *"I am an information and news junkie.*
- *I check facebook and Tweet regularly"*
- *They have replaced storing information in filing cabinets/phonebooks/CDs. Without them, would have to go back to the days of actually remembering someones phone number, bringing a disc man everywhere & all the CD cases, and remember my bank account information.*

**3. How often do you buy things online (including software, app's, entertainment media)?**

a. Once / twice a day	3.1%	3
b. Once / twice a week	34.0%	33
c. Once / twice a month	49.5%	48
d. Once / twice a year	12.4%	12
e. Never	1.0%	1

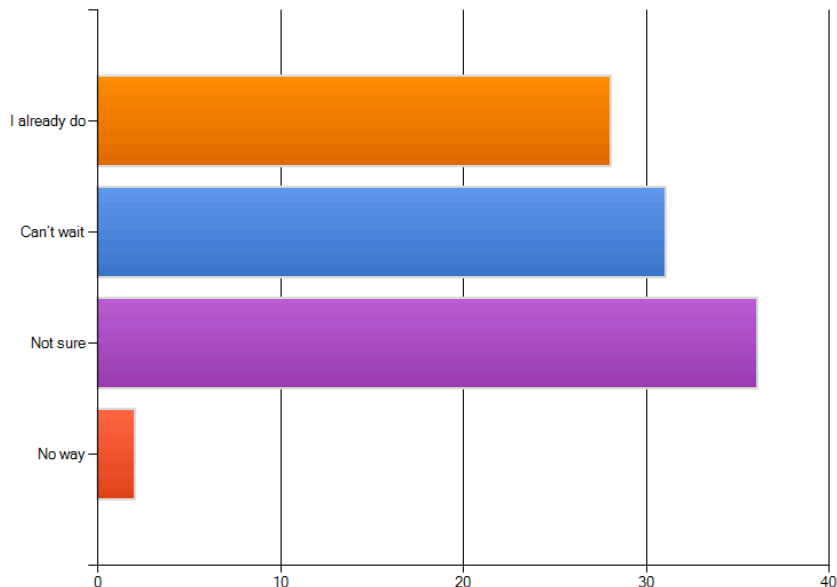
How often do you buy things online (including software, app's, entertainment media)?



**4. What's your view on being able to pay for things via your mobile phone?**

a. I already do	28.9%	28
b. Can't wait	32.0%	31
c. Not sure	37.1%	36
d. No way	2.1%	2

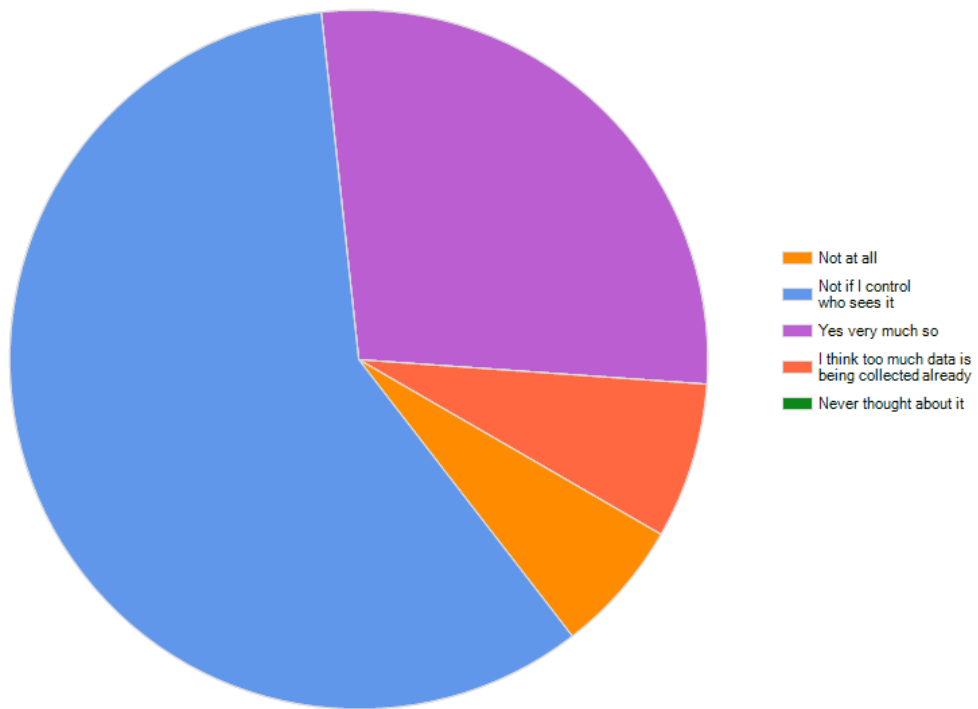
What's your view on being able to pay for things via your mobile phone?



**5. Does giving away personal data in social networks concern you?**

a. Not at all	6.2%	6
b. Not if I control who sees it	58.8%	57
c. Yes very much so	27.8%	27
d. I think too much data is being collected already	7.2%	7
e. Never thought about it	0.0%	0

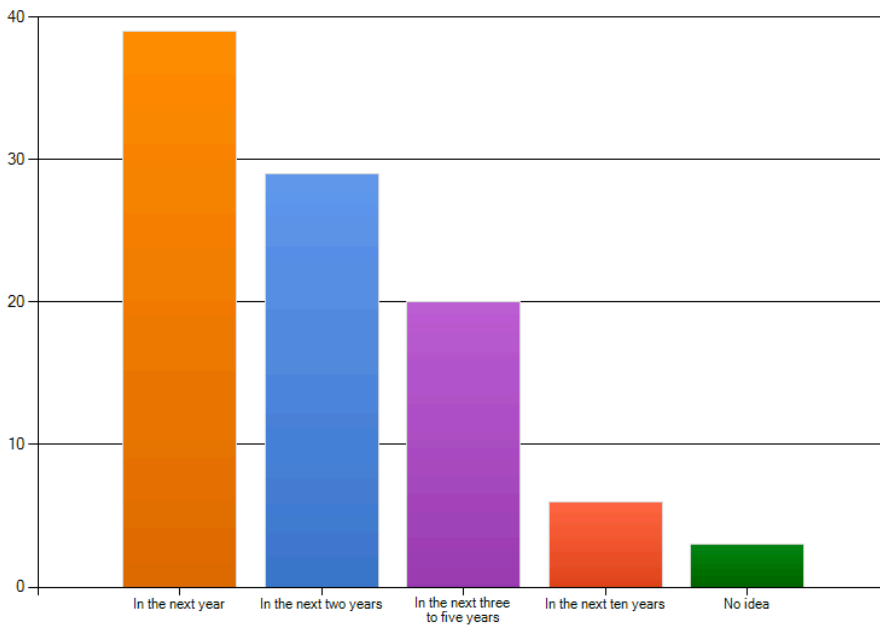
**Does giving away personal data in social networks concern you?**



**6. When do you see the majority of your entertainment content delivered digitally?**

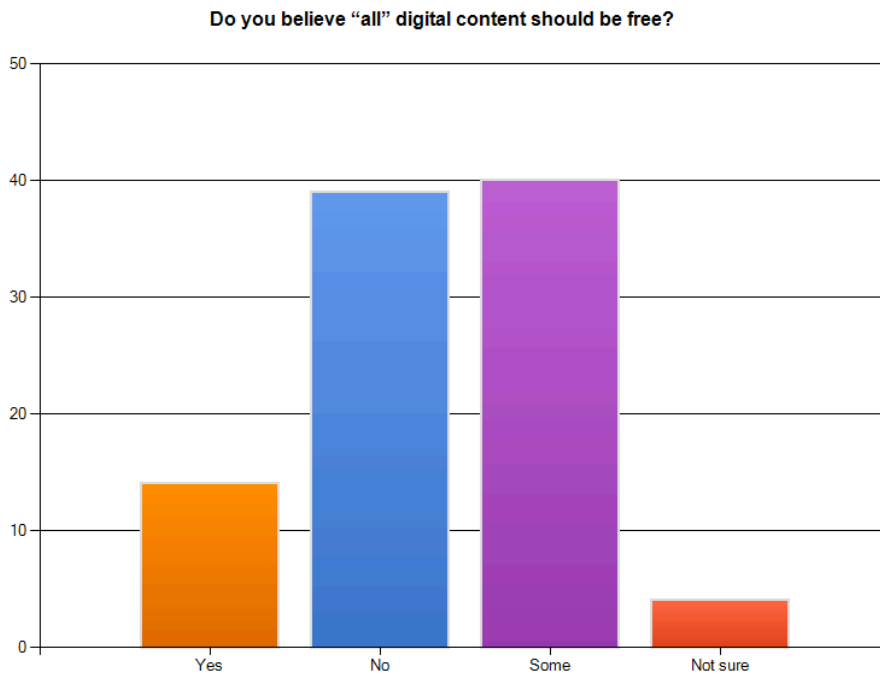
a. In the next year	40.2%	39
b. In the next two years	29.9%	29
c. In the next three to five years	20.6%	20
d. In the next ten years	6.2%	6
e. No idea	3.1%	3

**When do you see the majority of your entertainment content delivered digitally?**



**7. Do you believe “all” digital content should be free?**

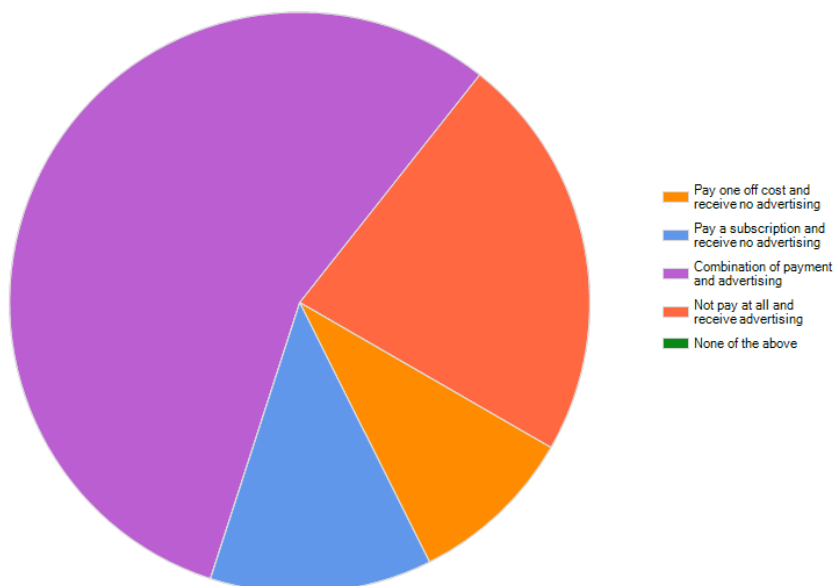
a. Yes	14.4%	14
b. No	40.2%	39
c. Some	41.2%	40
d. Not sure	4.1%	4



**8. Would you prefer to pay for “quality” digital content or receive advertising?**

a. Pay one off cost and receive no advertising	9.3%	9
b. Pay a subscription and receive no advertising	12.4%	12
c. Combination of payment and advertising	55.7%	54
d. Not pay at all and receive advertising	22.7%	22
e. None of the above	0.0%	0

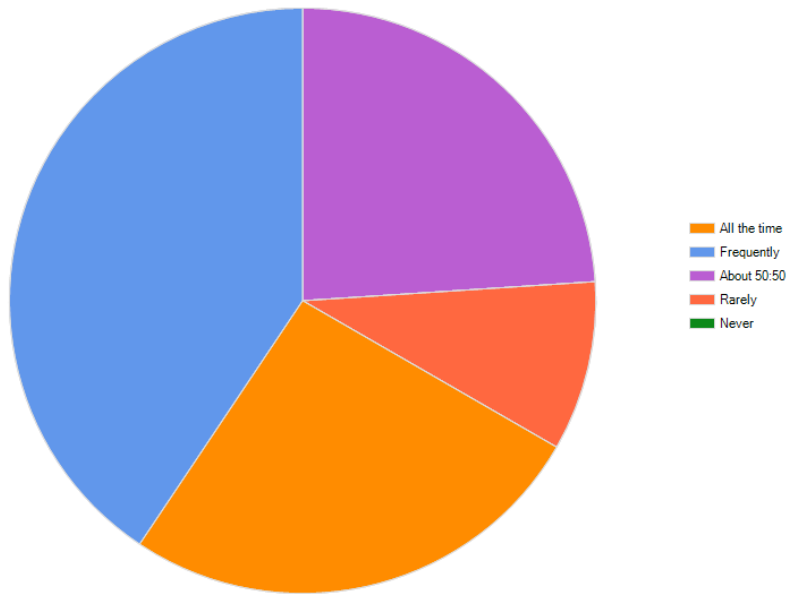
**Would you prefer to pay for “quality” digital content or receive advertising?**



**9. Do you ever notices ads?**

a. All the time	26.0%	25
b. Frequently	40.6%	39
c. About 50:50	24.0%	23
d. Rarely	9.4%	9
e. Never	0.0%	0

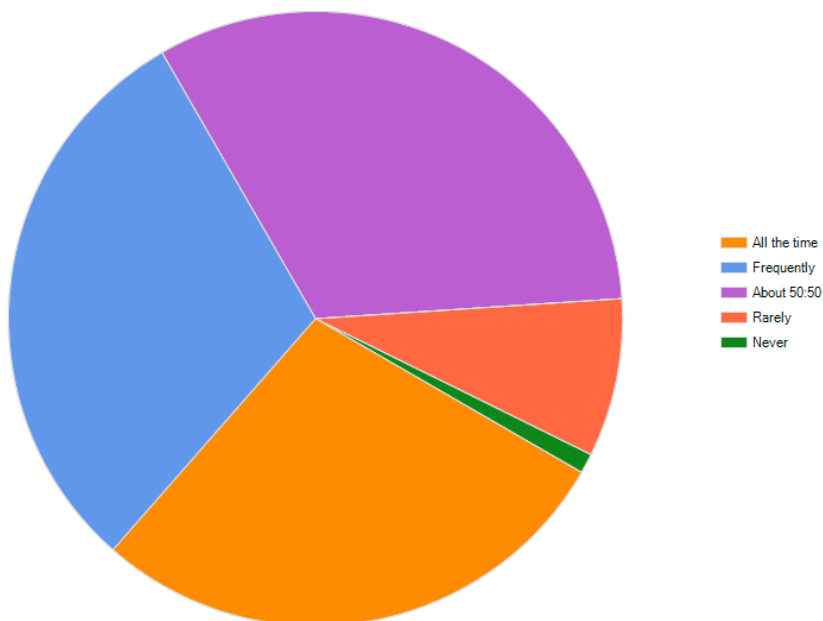
Do you ever notices ads?



**10. Do you skip ads on TV or in Magazines / NewsPapers**

a. All the time	28.1%	27
b. Frequently	30.2%	29
c. About 50:50	32.3%	31
d. Rarely	8.3%	8
e. Never	1.0%	1

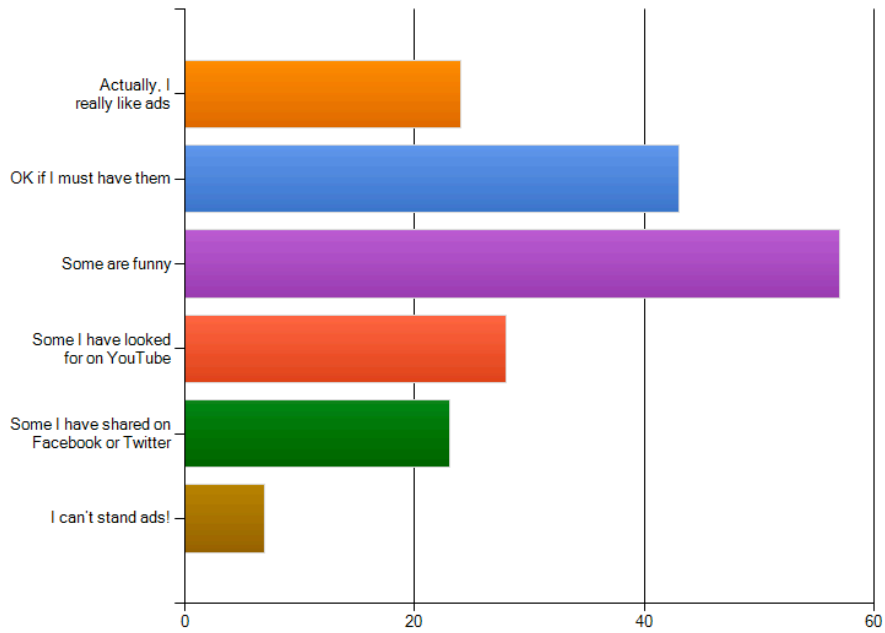
Do you skip ads on TV or in Magazines / NewsPapers



**11. How do you feel about ads?**

a. Actually, I really like ads	25.0%	24
b. OK if I must have them	44.8%	43
c. Some are funny	59.4%	57
d. Some I have looked for on YouTube	29.2%	28
e. Some I have shared on Facebook or Twitter	24.0%	23
f. I can't stand ads!	7.3%	7

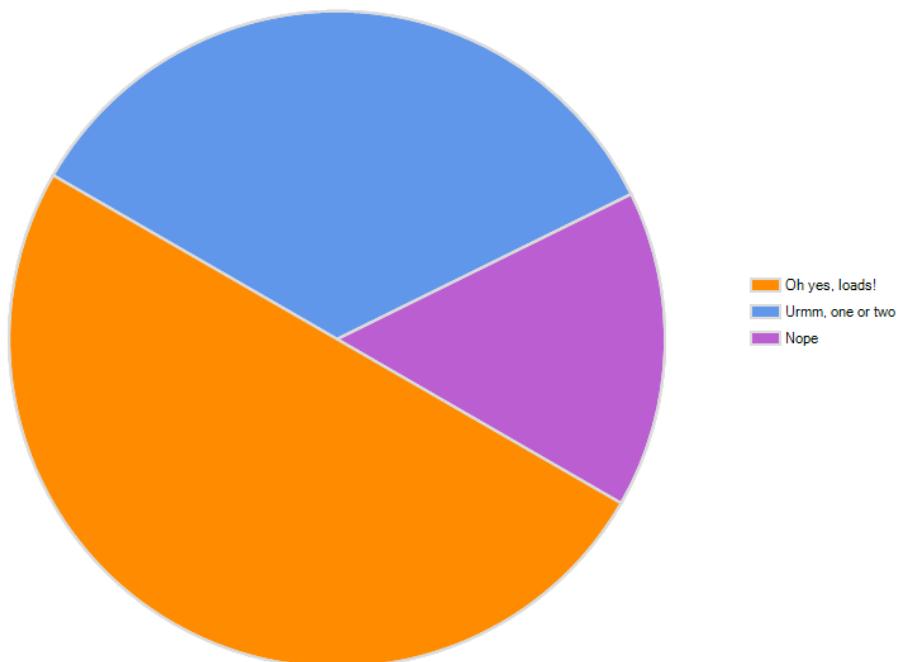
How do you feel about ads? (You can answer more than one, if you like)



**12. Can you remember a funny ad from you childhood?**

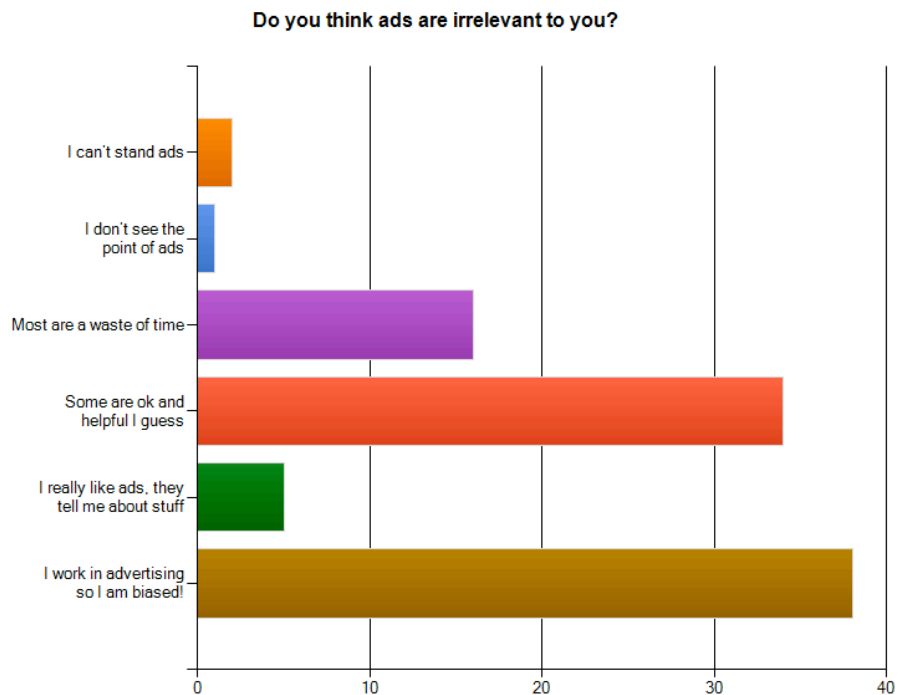
a. Oh yes, loads!	50.0%	48
b. Ummm, one or two	34.4%	33
c. Nope	15.6%	15

Can you remember a funny ad from you childhood?



**13. Do you think ads are irrelevant to you?**

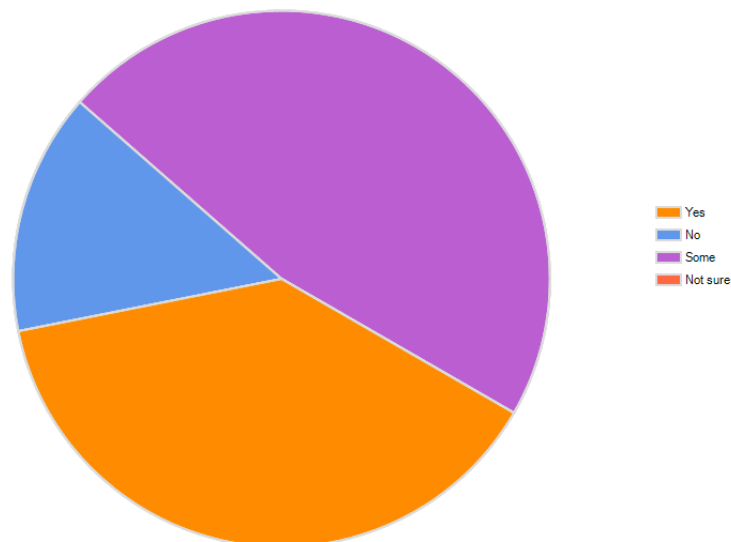
a. I can't stand ads	2.1%	2
b. I don't see the point of ads	1.0%	1
c. Most are a waste of time	16.7%	16
d. Some are ok and helpful I guess	35.4%	34
e. I really like ads, they tell me about stuff	5.2%	5
f. I work in advertising so I am biased!	39.6%	38



**14. Do you feel advertising serves a purpose to help you make informed choices about products and/or services in which you may be interested?**

a. Yes	38.5%	37
b. No	14.6%	14
c. Some	46.9%	45
d. Not sure	0.0%	0

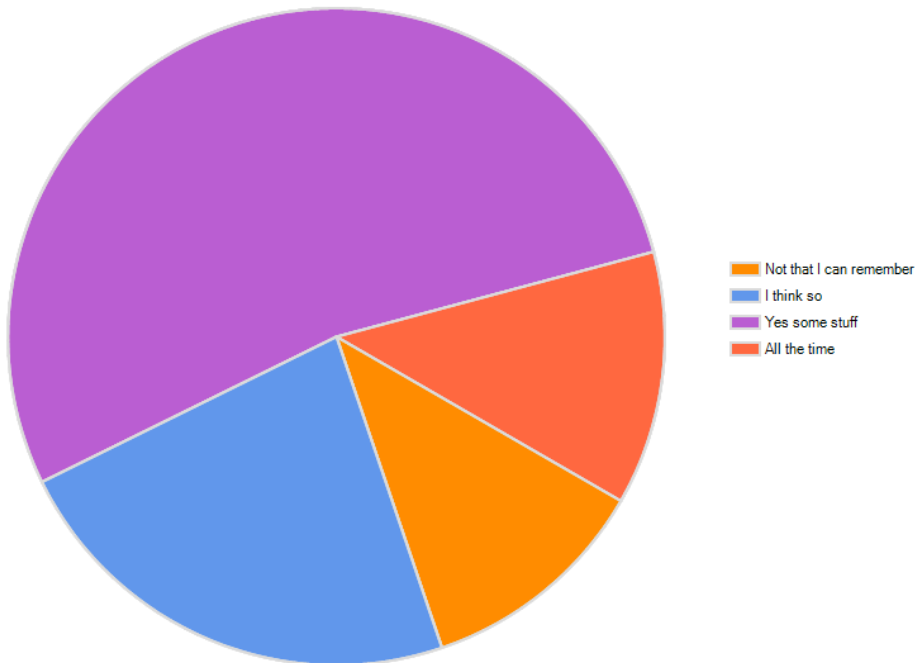
Do you feel advertising serves a purpose to help you make informed choices about products and/or services in which you may be interested?



**15. Have you ever bought anything as a result of seeing an ad?**

a. Not that I can remember	11.5%	11
b. I think so	22.9%	22
c. Yes some stuff	53.1%	51
d. All the time	12.5%	12

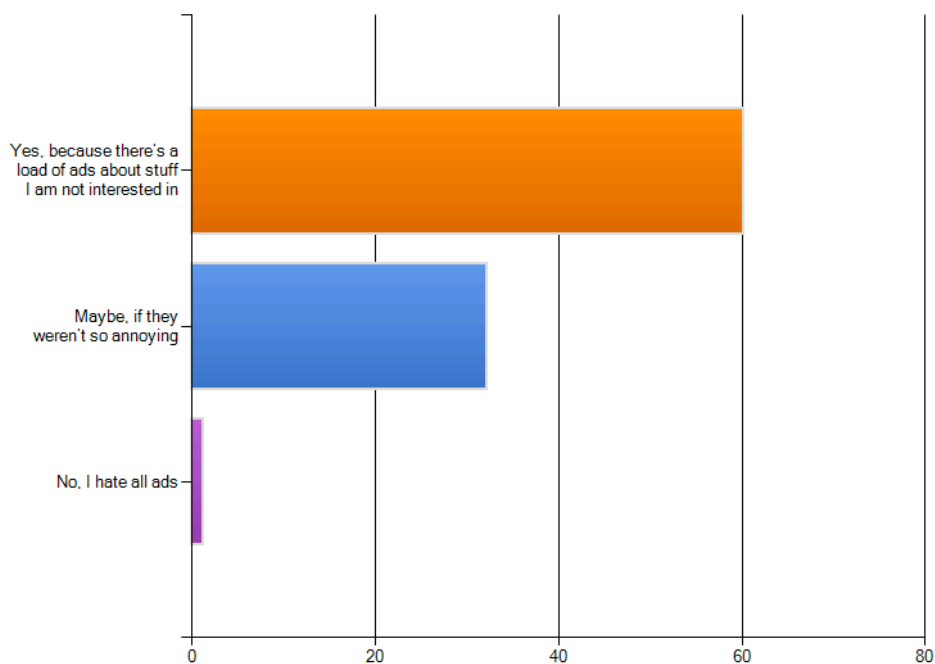
**Have you ever bought anything as a result of seeing an ad?**



**16. Would you be happier to receive advertising if it was more relevant to you?**

a. Yes, because there's a load of ads about stuff I am not interested in	64.5%	60
b. Maybe, if they weren't so annoying	34.4%	32
c. No, I hate all ads	1.1%	1

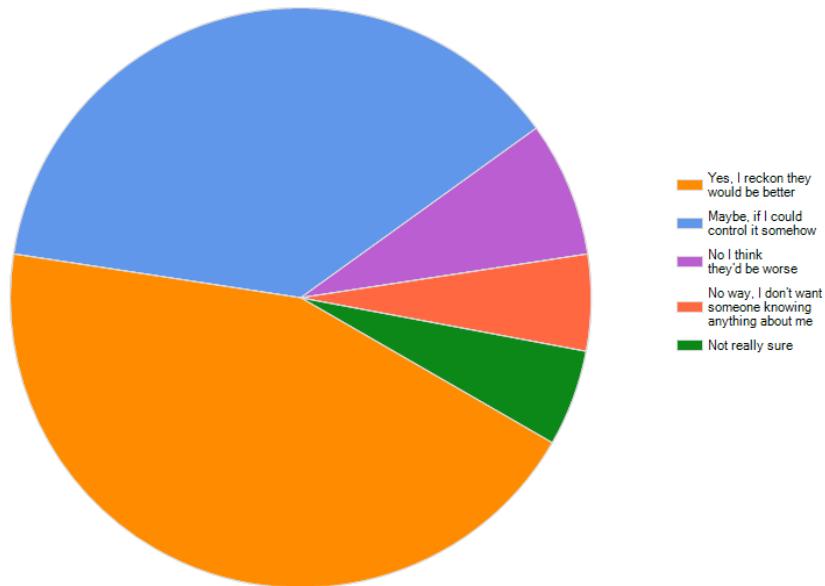
**Would you be happier to receive advertising if it was more relevant to you?**



**17. Do you think ads would be better or worse if they were personalized to you?**

- a. Yes, I reckon they would be better 44.1% 41
- b. Maybe, if I could control it somehow 37.6% 35
- c. No I think they'd be worse 7.5% 7
- d. No way, I don't want someone knowing anything about me 5.4% 5
- e. Not really sure 5.4% 5

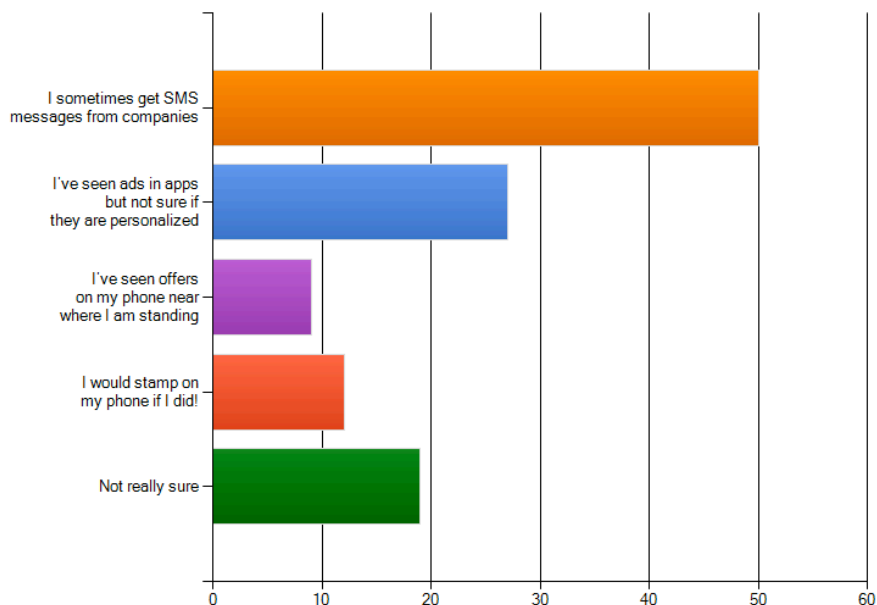
Do you think ads would be better or worse if they were personalized to you?



**18. Have you ever had a personalised ad sent to your mobile?**

- a. I sometimes get SMS messages from companies 53.8% 50
- b. I've seen ads in apps but not sure if they are personalized 29.0% 27
- c. I've seen offers on my phone near where I am standing 9.7% 9
- d. I would stamp on my phone if I did! 12.9% 12
- e. Not really sure 20.4% 19

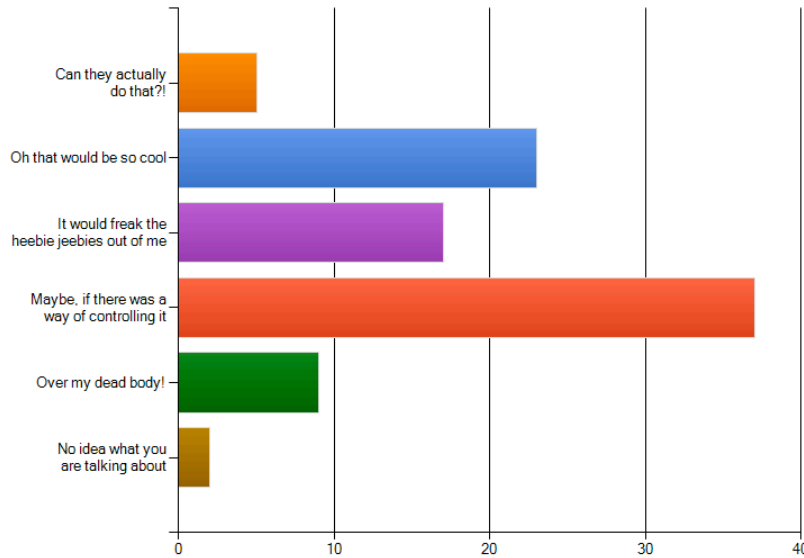
Have you ever had a personalised ad sent to your mobile? (You can choose more than one)



**19. How do you feel about ads in shops or the street that are personalized and talk to you like in Minority Report?**

a. Can they actually do that?!	5.4%	5
b. Oh that would be so cool	24.7%	23
c. It would freak the heebie jeebies out of me	18.3%	17
d. Maybe, if there was a way of controlling it	39.8%	37
e. Over my dead body!	9.7%	9
f. No idea what you are talking about	2.2%	2

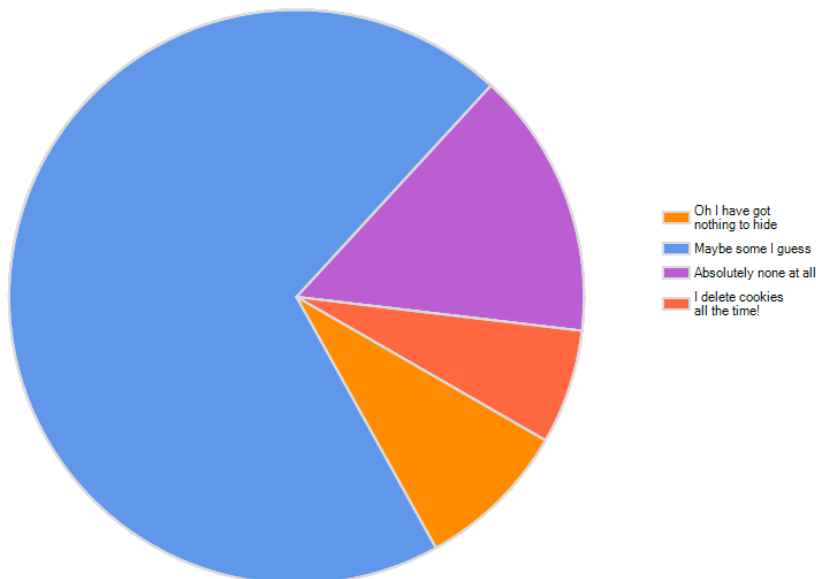
How do you feel about ads in shops or the street that are personalized and talk to you like in Minority Report?



**20. How much personal data would you give up in order to get (something of value via) a targeted ad?**

a. Oh I have got nothing to hide	8.6%	8
b. Maybe some I guess	69.9%	65
c. Absolutely none at all	15.1%	14
d. I delete cookies all the time!	6.5%	6

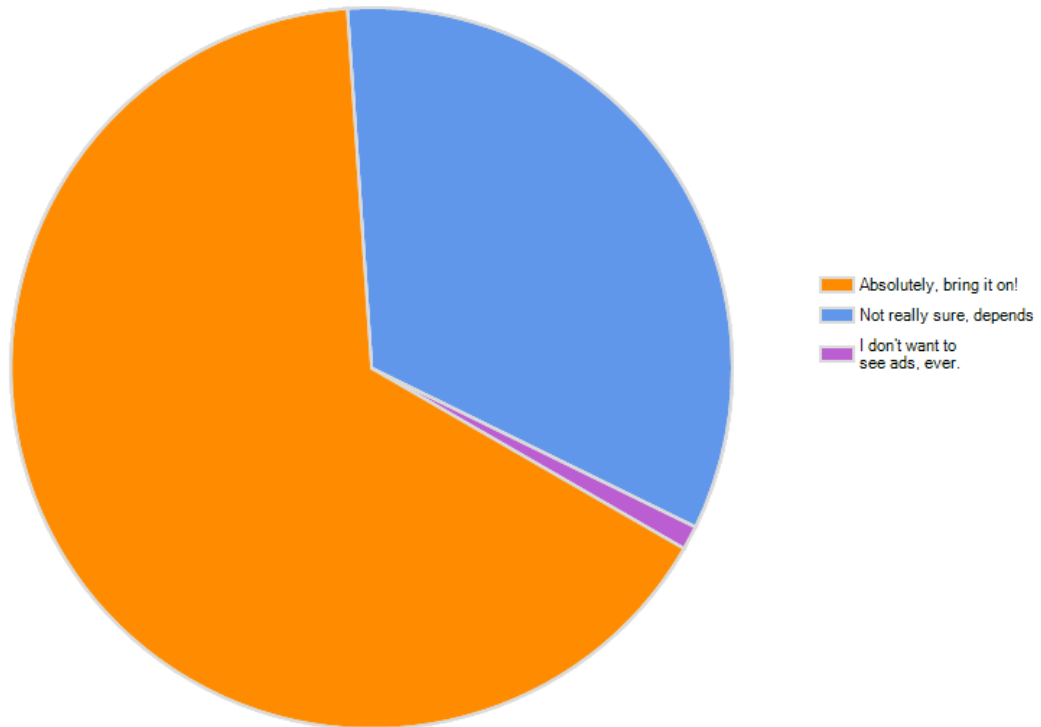
How much personal data would you give up in order to get a targeted ad?



**21. Do you think you should be able to control what ads are shown to you and when?**

a. Absolutely, bring it on!	65.6%	61
b. Not really sure, depends	33.3%	31
c. I don't want to see ads, ever.	1.1%	1

**Do you think you should be able to control what ads are shown to you and when?**



- *When I'm looking to buy a product, I want advertising to hit me like a frenzy. When I'm not necessarily in the marketplace for anything in particular, I want advertising to be a background noise that I can tune into or tune out as I please. And I don't want too much personalisation in my advertising - I want to be exposed to random stuff! I want my horizons expanded!*
- *"This is interesting on a couple of levels:*
- *1) Am I willing to accept the tradeoff: if I control when and what ads are shown, am I going to accept the constraints that puts on my access to the high quality, free content that advertising enables? My answer is in some places yes and others no.*
- *2) To me it depends on the device: I want to control what comes into my mobile, but I am willing to accept any advertising on my TV or even to some degree online without issue."*
- *I would definitely agree to personalised ad's so long as you could specify how many, how frequently and what types of products. I don't think then you would need to give too much personal data on the web which would compromise security.*
- *Frequency capped like weekly appointment.. I need to be reminded sometimes, but I should be able to 'flick' it off an on when I choose*
- *If you can control when you see ads wouldn't people just chose not to see them? I would have thought for advertising to be effective it needs to be delivered to people repeatedly and despite whether they would chose to receive it or not.*
- *security of 'your' information is a game-changer - commercial interests nearly always override personal information interests in the current business environment, there's too much at stake for \$-hungry companies not to get at your information*
- *there must be also the element of surprise*
- *if I were allowed control of the ads, then the ads I see would be of more value because I specified the messages and promotion I want to see.*
- *i'd rather not receive them but if they were public i would not want them personalize because then others around me know more about me. I don't find it as intrusive online.*

- *Advertisers should realize the annoying brands piss me off = I will actively boycott them and encourage others to do the same. For example BT. I hate BT and it's bogus promises and rubbish 'open zone'. Rant over, but you get the idea.*
- *Too much targetting would result too much stereotyping of perceived taste, choice etc. Would it reduce awareness of other genders, ethnic groups, products, companies and opinions (not that tampon ads have any real relevance to me!) But would advertisers start to dictate (even more!) what I buy and desire..... a potentially scary myopic road???*
- *There should be limits to what my personal information is used for, probably partially defined by the circumstances under which I divulge the information. This would be a long conversation.*
- *Some of the questions in the survey offer a minimal choice in how we prefer to view advertising, or, how they should be delivered. What needs to be included is our ability to dismiss ads as background noise. A great ad makes us notice it and may make a lasting impression while a poorly created ad is ignored. An intrusive ad prevents us from performing or viewing or experiencing our lives and the delay or hinderance causes many people to despise advertising. While targeted advertising may be great because it is taylored to what we might like, we should not limit advertising based on that, because our brains, our personalities, and our behaviors cannot be measured fully by a program. We are not consistent as human beings, and our tastes, wants and needs change over time. Also, there are services and products I may not be aware of that doesn't fit into my normal day to day life, but it might be something I would be interested in. If we limit ads to what someone thinks we might like based on data capture, what would be the effectiveness of those ads going forward? How well would they convert in 1 - 5, or 10 years. As the display banner has dropped in performance from 5% CTR to a fraction of a percent over the last 10 years, wouldn't we also conclude that targeted ads would be less effective in the future. What then? The choice we make based from a desirable ad to a less desireable ad gives us the increased behavior to choose the good one. If everything is Heaven, what would we say is Hell?*

## Bibliography

- U.S Department of State. *Safety & Security of U.S. Borders/Biometric*. 2007 1-December. [http://travel.state.gov/visa/immigrants/info/info\\_1336.html](http://travel.state.gov/visa/immigrants/info/info_1336.html) (accessed 2009 20-November).
- University of Twente. "Hypodermic Needle Theory." 2007 26-February. [http://www.tcw.utwente.nl/theorieenoverzicht/Theory%20clusters/Mass%20Media/Hypodermic\\_Needle\\_Theory.doc](http://www.tcw.utwente.nl/theorieenoverzicht/Theory%20clusters/Mass%20Media/Hypodermic_Needle_Theory.doc) (accessed 2009 1-December).
- USPTO Patent Application 20090167839. *Methods and apparatus for providing communication between multiple television viewers*. 2009 2-July. <http://www.freshpatents.com/-dt20090702ptan20090167839.php?type=description> (accessed 2009 24-November).
- ZenithOptimedia. *Ad Spend to Grow 6.7% in '08, Internet to Overtake Radio in '08 & Mags in '10*. 2007 3-December. <http://www.marketingcharts.com/television/ad-spend-to-grow-67-in-08-internet-to-overtake-radio-in-08-mags-in-10-2596/> (accessed 2009 12-October).
- Zmuda, Natalie. *TV Ads 'a Waste of Money' for the Back-in-Black Gap*. 2008 26-May. [http://adage.com/abstract.php?article\\_id=127310](http://adage.com/abstract.php?article_id=127310) (accessed 2009 18-October).
- Wallop, Harry. *£225 energy bill penalty for not using web*. 2009 3-September. <http://www.telegraph.co.uk/finance/personalfinance/consumertips/household-bills/6126791/225-energy-bill-penalty-for-not-using-web.html> (accessed 2009 18-November).
- Walters, Jeff. *Digital Ad Spending: Still at Index of 50% vs. Consumption*. 2009 3-October. <http://strategyoutfitters.com/digital-ad-spending-still-at-index-of-50-vs-consumption> (accessed 2009 11-November).
- Want, Roy. "The Magic of RFID." *Queue (ACM)* 2, no. 7 (October 2004): 40-48.
- We Make Money Not Art. *Sherelog: Suica Mashup*. 2006 13-March. <http://www.we-make-money-not-art.com/archives/2006/03/sherelog-suica.php> (accessed 2009 20-November).
- Wexler, Joanie. *Case Study: Legoland tracks children with Wi-Fi based RFID*. 2004 27-April. <http://howto.techworld.com/mobile-wireless/532/case-study-legoland-tracks-children-with-wi-fi-based-rfid/> (accessed 2009 20-November).
- Webb, Tim. *Cashless society by 2012, says Visa chief*. 2007 11-March. <http://www.independent.co.uk/news/business/news/cashless-society-by-2012-says-visa-chief-439676.html> (accessed 2009 20-November).

Weier, Mary Hayes. *Coke's RFID-Based Dispensers Redefine Business Intelligence*. 2009 6-June. <http://www.informationweek.com/news/mobility/RFID/showArticle.jhtml?articleID=217701971> (accessed 2009 20-November).

Weinstein, Lauren. *A Clear Case for ISP Regulation: IP Address Logging*. 2009 2-June. [http://www.circleid.com/posts/20090602\\_isp\\_regulation\\_ip\\_address\\_logging/](http://www.circleid.com/posts/20090602_isp_regulation_ip_address_logging/) (accessed 2009 20-November).

Weiser, Mark. *Ubiquitous Computing*. 1996 3-March. <http://sandbox.xerox.com/ubicomp> (accessed 2009 20-November).

—. *The Computer for the 21st Century*. 1991 1-September. <http://nano.xerox.com/hypertext/weiser/SciAmDraft3.html> (accessed 2009 21-November).

Wessel, Rhea. *U.K. Researchers Study Distributed Antenna System for Airports*. 2009 18-November. <http://www.rfidjournal.com/article/view/7215/1> (accessed 2009 20-November).

Williams, Chris. *Information Commissioner: Phorm must be opt-in only*. 2008 9-April. [http://www.theregister.co.uk/2008/04/09/ico\\_phorm\\_tougher/](http://www.theregister.co.uk/2008/04/09/ico_phorm_tougher/) (accessed 2009 1-July).

—. *Police drop BT-Phorm probe*. 2008 22-September. [http://www.theregister.co.uk/2008/09/22/bt\\_phorm\\_police\\_drop/](http://www.theregister.co.uk/2008/09/22/bt_phorm_police_drop/) (accessed 2009 18-November).

Williams, Ian. *Mobile broadband users to pass 1bn by 2012 say analysts*. 2007 9-August. <http://www.v3.co.uk/vnunet/news/2196327/mobile-broadband-users-pass-1bn-2012> (accessed 2009 20-November).

Winer, Peter. "RFID in Colorado and China." 2004 21-April. <http://radio.weblogs.com/0121943/2004/04/21.html> (accessed 2009 20-November).

Wireless Watch Japan. *Coupon Shopping with Shufoo!* 2009 25-June. <http://wirelesswatch.jp/2009/06/25/coupon-shopping-with-shufoo/> (accessed 2009 20-November).

—. *McDonalds Japan Rolls RFID Coupons*. 2008 23-May. <http://wirelesswatch.jp/2008/05/23/mcdonalds-japan-rolls-rfid-coupons/> (accessed 2009 20-November).

Whateley, Laura. *Can you trust wave-and-go cash cards?* 2009 24-October. [http://www.timesonline.co.uk/tol/money/consumer\\_affairs/article6887579.ece](http://www.timesonline.co.uk/tol/money/consumer_affairs/article6887579.ece) (accessed 2009 21-November).

Wojcicki, Susan. *Making ads more interesting*. 2009 11-March.  
<http://googleblog.blogspot.com/2009/03/making-ads-more-interesting.html> (accessed 2009 18-November).

Wolchak, Peter. *RFID tag sales soar*. 2009 1-October.  
[http://www.backbonemag.com/Magazine/Backspace\\_10010905.asp](http://www.backbonemag.com/Magazine/Backspace_10010905.asp) (accessed 2009 21-November).

Xiller GmbH. *The potential and dangers of advertising with RFID*. 2009 12-August.  
<http://www.pressreleasepoint.com/potential-and-dangers-advertising-rfid> (accessed 2009 28-November).

Yaxley, Heather. *Is advertising evil? Should we just ban it all?* 2007 26-February.  
<http://greenbanana.wordpress.com/2007/02/26/is-advertising-evil-should-we-just-ban-it-all/> (accessed 2009 12-November).

Vance, Ashlee. *Wal-Mart turns customers into RFID lab rats*. 2003 11-November.  
[http://www.theregister.co.uk/2003/11/13/walmart\\_turns\\_customers\\_into\\_rfid/](http://www.theregister.co.uk/2003/11/13/walmart_turns_customers_into_rfid/) (accessed 2009 20-November).

Varchaver, Nicholas. *Scanning the Globe*. 2004 31-May.  
[http://money.cnn.com/magazines/fortune/fortune\\_archive/2004/05/31/370719/index.htm](http://money.cnn.com/magazines/fortune/fortune_archive/2004/05/31/370719/index.htm) (accessed 2009 20-November).

911Truth. *Orwellian Society*. 2004 30-April. <http://911truth.tripod.com/orwell.html> (accessed 2009 18-November).

Aun, Fred J. *Digital Signage Growth Boosted by Cheap Hardware, Restrained by Security Costs*. 2009 11-March. <http://www.storefrontbacktalk.com/securityfraud/digital-signage-growth-boosted-by-cheap-hardware-restrained-by-security-costs/> (accessed 2009 24-November).

ABI Research. *Next Generation Connected Home Devices (Fourth Screen)*. 2009 1-August.  
[http://www.abiresearch.com/research/1004498-Next+Generation+Connected+Home+Devices+\(Fourth+Screen\)](http://www.abiresearch.com/research/1004498-Next+Generation+Connected+Home+Devices+(Fourth+Screen)) (accessed 2009 20-November).

ACLU. *ACLU Letter to the Data Privacy and Integrity Advisory Committee Regarding Its Report "The Use of RFID for Human Identification"*. 2006 28-July. <http://www.aclu.org/technology-and-liberty/aclu-letter-data-privacy-and-integrity-advisory-committee-regarding-its-repor> (accessed 2009 28-November).

Adomatis, Doug. *Using the GPS for People Tracking*. 2009 20-February.  
<http://www.travelbygps.com/articles/tracking.php> (accessed 2009 1-December).

Agence France-Presse. *Government pressure affecting Internet social networks—forum*. 2009 19-November. <http://newsinfo.inquirer.net/breakingnews/infotech/view/20091119-237148/Government-pressure-affecting-Internet-social-networksforum> (accessed 2009 19-November).

Akiyama, Tomoyuki. *Gyazapo RFID phones to carry loyalty points from 100 stores*. 2009 23-February. [http://www.digitalworldtokyo.com/index.php/digital\\_tokyo/articles/gyazapo\\_rfid\\_phones\\_to\\_carry\\_loyalty\\_points\\_from\\_100\\_stores/](http://www.digitalworldtokyo.com/index.php/digital_tokyo/articles/gyazapo_rfid_phones_to_carry_loyalty_points_from_100_stores/) (accessed 2009 20-November).

Allonby, Nathan. *ID Cards - a World View*. 2009 1-September. <http://justgetthere.us/blog/archives/ID-Cards-a-World-View.html> (accessed 2009 20-November).

Andrews, Robert. *Phorm UK chief steps dow*. 2009 18-November. <http://www.guardian.co.uk/media/pda/2009/nov/18/digital-media-phorm-uk-chief-leaves> (accessed 2009 19-November).

Annenberg School for Communication at the University of Pennsylvania. *Americans Reject Tailored Advertising: Study Contradicts Claims by Marketers*. 2009 30-September. <http://www.asc.upenn.edu/news/NewsDetail.aspx?nid=612> (accessed 2009 14-November).

AntiChips. *Alzheimer's Patients Targeted for Medical Implant Experiment*. 2007 22-February. <http://www.antichips.com/forced-chipping.htm> (accessed 2009 20-November).

Ambrose, Eileen. *ID thefts put shredder sales on a tear*. 2004 18-April. <http://www.chicagotribune.com/business/yourmoney/sns-yourmoney-0418shred,0,1001919.story> (accessed 2009 20-November).

AppScout. *MoveOn: Facebook Is Ruining Christmas*. 2007 21-November. [http://www.appscout.com/2007/11/moveon\\_facebook\\_is\\_ruining\\_christmas.php](http://www.appscout.com/2007/11/moveon_facebook_is_ruining_christmas.php) (accessed 2007 1-December).

Associated Press. *HIV carriers face microchip implants in Indonesia's Papua province*. 2008 24-November. <http://www.guardian.co.uk/world/2008/nov/24/indonesia-aids> (accessed 2009 20-November).

Arthur, Charles. *Facebook reaches 500 million users*. 2010 21-July. <http://www.guardian.co.uk/technology/2010/jul/21/facebook-500-million-users> (accessed 2010 28-July).

—. *See how Twitter grew - and find out what made it explode*. 2010 27-August.  
<http://www.guardian.co.uk/technology/blog/2010/aug/27/twitter-growth-interactive> (accessed 2010 29-August).

Bunyan, Tony. "The "digital tsunami" and the EU surveillance state." *StateWatch*. 2009 25-March.  
<http://www.statewatch.org/analyses/no-75-digital-tsunami.pdf> (accessed 2009 20-November).

—. *The surveillance society is an EU-wide issue*. 2009 28-May.  
<http://www.guardian.co.uk/commentisfree/libertycentral/2009/may/28/eu-view-surveillance-society> (accessed 2009 21-November).

Business Week. *The Sound Of Many Hands Zapping*. 2006 26-May.  
[http://www.businessweek.com/magazine/content/06\\_21/b3985063.htm](http://www.businessweek.com/magazine/content/06_21/b3985063.htm) (accessed 2009 18-November).

Buskirk, Eliot Van. *Apple's Purchase of Lala Could Signal Cheaper, Streaming iTunes*. 2009 4-December. <http://www.wired.com/epicenter/2009/12/apples-reported-lala-talks-could-lead-to-cheaper-cloud-based-itunes/> (accessed 2009 4-December).

Burnell, John. *Startup Touts 600-foot Read Range for Passive RFID*. 2008 14-April.  
<http://www.rfidupdate.com/articles/index.php?id=1583> (accessed 2009 21-November).

Bavier, Joe. "Congo hopes hi-tech ID cards will tame unruly army." *Reuters*. 2007 27-September.  
<http://www.alertnet.org/thenews/newsdesk/L27799842.htm> (accessed 2009 21-November).

Balestrieri, Valeria. "EU-INDIA: The RISE Consortium hosts a High Level Meeting in New Delhi on Biometrics and Security Ethics." *CORDIS*. 2009 23-July.  
<http://cordis.europa.eu/wire/index.cfm?fuseaction=article.Detail&rcn=19556> (accessed 2009 28-October).

Bashford, Suzy. *Behavioural targeting: How online ads got personal*. 2006 1-June.  
<http://www.brandrepublic.com/bulletins/digital/article/565833/behavioural-targeting-online-ads-personal/> (accessed 2009 11-October).

Barkoviak, Michael. *FBI: Hackers Targeting PR Companies, Law Firms*. 2009 18-November.  
<http://www.dailytech.com/FBI+Hackers+Targeting+PR+Companies+Law+Firms/article16871.htm> (accessed 2009 18-NOVember).

Bartz, Daniel. *Autonomous Cars Will Make Us Safer*. 2009 16-November.  
<http://www.wired.com/autopia/2009/11/autonomous-cars/> (accessed 2009 20-November).

- Batista, Elisa. *What Your Clothes Say About You*. 2003 12-March.  
<http://www.wired.com/gadgets/wireless/news/2003/03/58006?currentPage=1> (accessed 2009 20-November ).
- . *'Step Back' for Wireless ID Tech?* 2009 8-April.  
<http://www.wired.com/gadgets/wireless/news/2003/04/58385?currentPage=1> (accessed 2009 20-November).
- BBC News. *BBC to help pensioners go digital*. 2006 16-November.  
<http://news.bbc.co.uk/2/hi/entertainment/6155518.stm> (accessed 2009 20-November).
- . *Brain chip reads man's thoughts*. 2005 31-March.  
<http://news.bbc.co.uk/1/hi/health/4396387.stm> (accessed 2009 20-November).
- . *Councils warned over spying laws*. 2008 23-June. <http://news.bbc.co.uk/1/hi/uk/7468430.stm> (accessed 2009 18-October).
- . *Coronation Street loses sponsor*. 2006 14-Novemer.  
<http://news.bbc.co.uk/1/hi/business/6148006.stm> (accessed 2009 18-October).
- . *Google to limit free news access*. 2009 2-December.  
<http://news.bbc.co.uk/2/hi/business/8389896.stm> (accessed 2009 2-December).
- . *Grid computing tunes tiny transistors for future chips*. 2009 4-December.  
<http://news.bbc.co.uk/2/hi/technology/8393454.stm> (accessed 2009 4-December).
- . *'Illegal' ad system scrutinised*. 2008 4-April. <http://news.bbc.co.uk/1/hi/technology/7331493.stm> (accessed 2008 30-July).
- . *London rocked by terror attacks*. 2005 7-July. <http://news.bbc.co.uk/1/hi/4659093.stm> (accessed 2009 18-November).
- . *Mumbai rocked by deadly attacks*. 2008 27-November. <http://news.bbc.co.uk/1/hi/7751160.stm> (accessed 2009 20-November).
- . *Ofcom report highlights 'multi-tasking media users'*. 2010 19-August.  
<http://www.bbc.co.uk/news/technology-11012356> (accessed 2010 20-August).
- . *Open Rights Group questions Phorm*. 2008 12-March.  
<http://news.bbc.co.uk/1/hi/technology/7291637.stm> (accessed 2008 1-July).

- . *Protests force Facebook to change*. 2007 30-November.  
<http://news.bbc.co.uk/1/hi/technology/7120916.stm> (accessed 2007 1-December).
- . *Robots could demand legal rights*. 2006 21-December.  
<http://news.bbc.co.uk/1/hi/technology/6200005.stm> (accessed 2009 22-November).
- Belson, Ken. *Your Call (and Rants on Hold) Will Be Monitored*. 2005 11-January.  
<http://www.nytimes.com/2005/01/11/business/11snoop.html> (accessed 2009 18-November).
- Best, Jo. *Japan school kids to be tagged with RFID chips*. 2004 12-July. [http://news.cnet.com/Japan-school-kids-to-be-tagged-with-RFID-chips/2100-1012\\_3-5266700.html](http://news.cnet.com/Japan-school-kids-to-be-tagged-with-RFID-chips/2100-1012_3-5266700.html) (accessed 2009 20-November).
- Berglin, Lena. *Smart Textiles Were Only the Beginning - Presenting Resource Smart Materials*. 2008 25-November. <http://www.smarttextiles.se/index.php/en/media/press-releases/60-smarta-textilier-bara-boerjan-nu-kommer-resurssmarta-material> (accessed 2009 20-November).
- Biswas, Soutik. *India in biggest biometric count*. 2009 7-September.  
[http://news.bbc.co.uk/1/hi/world/south\\_asia/8241545.stm](http://news.bbc.co.uk/1/hi/world/south_asia/8241545.stm) (accessed 2009 19-September).
- Black, Edwin. *IBM and the Holocaust*. Vol. 2nd edition. Washington, DC: Dialog Press, 2009.
- Blackfriars' Marketing. *Marketing as a percentage of revenue*. 2005 20-January.  
<http://blackfriarsinc.com/blog/2005/01/marketing-as-percentage-of-revenue.html> (accessed 2009 11-November).
- Boggan, Steve. *Cracked it!* 2006 17-November.  
<http://www.guardian.co.uk/technology/2006/nov/17/news.homeaffairs> (accessed 2009 20-November).
- Bohman, James. "Expanding dialogue: The Internet, the public sphere and prospects for transnational democracy." In *After Habermas: New Perspectives on the Public Sphere*, by John Michael Roberts, edited by Nick Crossley. Oxford: Blackwell Publ. Ltd., 2004.
- Bostrom, Johan. *Target marketing via RFID to debut in Seattle*. 2005 23-May.  
<http://www.infoworld.com/t/networking/target-marketing-rfid-debut-in-seattle-175> (accessed 2009 20-November).
- Borriello, Gaetano. "RFID: tagging the world." *Communications of the ACM (ACM)* 48, no. 9 (September 2005): 34-37.
- Cubitt, Sean. *Ecomedia*. Amsterdam: Rodopi, 2005.

Casciani, Dominic. *UK surveillance plan to go ahead*. 2009 9-November. [http://news.bbc.co.uk/1/hi/uk\\_politics/8350660.stm](http://news.bbc.co.uk/1/hi/uk_politics/8350660.stm) (accessed 2009 19-November).

Carless, Jenny. *Smart Grid Strategies for a Global Marketplace*. 2009 24-September. [http://newsroom.cisco.com/dlls/2009/ts\\_092409.html](http://newsroom.cisco.com/dlls/2009/ts_092409.html) (accessed 2009 20-November).

Cellular News. *Brands Set to Treble Spend on Mobile Marketing by 2013*. 2008 9-October. <http://www.cellular-news.com/story/34048.php> (accessed 2009 21-November).

Chacksfield, Marc. *YouTube to charge for TV show access?* 2009 2-December. <http://www.techradar.com/news/internet/youtube-to-charge-for-tv-show-access--655485> (accessed 2009 2-December).

Chai, Winston. *Benetton considers chip plans*. 2003 7-April. <http://news.zdnet.co.uk/hardware/0,1000000091,2133031,00.htm> (accessed 2009 20-November).

Chandler, David L. *Barcodes for the rest of us*. 2009 24-July. <http://web.mit.edu/newsoffice/2009/barcodes-0724.html> (accessed 2009 20-November).

Charles, Becky. *Wispa relaunch bolsters Cadbury results*. 2009 26-February. <http://www.marketingmagazine.co.uk/news/884338/Wispa-relaunch-bolsters-Cadbury-results/> (accessed 2009 12-October).

Chen, Brian X. *Digital Contacts Will Keep an Eye on Your Vital Signs*. 2009 10-September. <http://www.wired.com/gadgetlab/2009/09/ar-contact-lens/> (accessed 2009 21-November).

Chhabra, Gautam. *Houses in Japan get RFID protection*. 2008 31-March. [http://www.rfid-weblog.com/50226711/houses\\_in\\_japan\\_get\\_rfid\\_protection.php](http://www.rfid-weblog.com/50226711/houses_in_japan_get_rfid_protection.php) (accessed 2009 20-November).

Clarkson, Damian. *Why social media could cost you*. 2010 8-March. <http://money.uk.msn.com/credit-reports/articles.aspx?cp-documentid=152415838> (accessed 2010 29-July).

Clifford, Stephanie. *As shoppers stroll, a pitch in every aisle*. 2010 17-August. <http://www.mydigitalfc.com/news/shoppers-stroll-pitch-every-aisle-549> (accessed 2010 29-August).

CoverPages. *Auto-ID Center Uses Physical Markup Language in Radio Frequency Identification (RFID) Tag Technology*. 2001 21-November. <http://xml.coverpages.org/ni2001-11-21-c.html> (accessed 2009 21-November).

Cohen, David. *This Half Is Wasted*. 2003 3-September. <http://www.clickz.com/3071191> (accessed 2009 12-November).

Cole, Jeffrey. *Annual Internet Survey by the Center for the Digital Future Finds Large Increases in Use of Online Newspapers*. 2009 28-April.

[http://www.digitalcenter.org/pdf/2009\\_Digital\\_Future\\_Project\\_Release\\_Highlights.pdf](http://www.digitalcenter.org/pdf/2009_Digital_Future_Project_Release_Highlights.pdf) (accessed 2009 12-June).

ComScore. *U.S. Client Newsletter - May 2009 Edition*. 2009 1-May.

[http://www.comscore.com/Newsletter/2009/May/US\\_Client\\_Newsletter/\(language\)/eng-US](http://www.comscore.com/Newsletter/2009/May/US_Client_Newsletter/(language)/eng-US) (accessed 2009 20-November).

—. "comScore Media Metrix Ranks Top 50 U.S. Web Properties for October 2009." *ComScore*. 2009 12-November.

<http://www.comscore.com/content/download/3729/70035/file/comScore%20Media%20Metrix%20Ranks%20Top%2050%20U.S.%20Web%20Properties%20for%20October%202009.pdf> (accessed 2009 18-November).

—. *comScore Study Estimates that 10 Percent of U.S. Online Display Ads are Locally Targeted*. 2009 9-October.

[http://www.comscore.com/Press\\_Events/Press\\_Releases/2009/10/comScore\\_Study\\_Estimates\\_that\\_10\\_Percent\\_of\\_U.S.\\_Online\\_Display\\_Ads\\_are\\_Locally\\_Targeted/\(language\)/eng-US](http://www.comscore.com/Press_Events/Press_Releases/2009/10/comScore_Study_Estimates_that_10_Percent_of_U.S._Online_Display_Ads_are_Locally_Targeted/(language)/eng-US) (accessed 2009 18-November).

Cooney, Michael. *The six greatest threats to US cybersecurity*. 2009 17-November.

<http://www.networkworld.com/news/2009/111709-layer8-cybersecurity-threats.html> (accessed 2009 18-November).

*Minority Report*. Directed by Stephen Spielberg. Performed by Tom Cruise. 20th Century Fox Film Corporation, 2002.

Crawford, N. C. *Fear Itself: US Foreign and Military Policy Since 9/11*. International Studies Association. 2004 17-March.

[http://www.allacademic.com/meta/p\\_mla\\_apa\\_research\\_citation/0/7/4/5/9/p74593\\_index.html](http://www.allacademic.com/meta/p_mla_apa_research_citation/0/7/4/5/9/p74593_index.html) (accessed 2009 19-November).

Crampton, Thomas. *Where to draw line when street ads give you a ring*. 2006 7-May.

[http://www.nytimes.com/2006/05/07/technology/07iht-mobilead08.html?pagewanted=1&\\_r=1](http://www.nytimes.com/2006/05/07/technology/07iht-mobilead08.html?pagewanted=1&_r=1) (accessed 2009 20-November).

—. *Coming to (free) mobile phones for youths: Ads*. 2006 1-November.

[http://www.nytimes.com/2006/11/01/technology/01iht-mobile.3360731.html?\\_r=1](http://www.nytimes.com/2006/11/01/technology/01iht-mobile.3360731.html?_r=1) (accessed 2009 1-December).

European Digital Rights. *Behavioural Targeting At The European Consumer Summit*. 2009 8-April. <http://www.edri.org/edri-gram/number7.7/behavioural-target-eu-consumers> (accessed 2009 24-October).

Eyeblander. "EU Campaign: Stop Smoking." *Eyeblander*. 2008 1-June. [http://www.eyeblander.com/Data/Uploads/ResourceLibrary/EU\\_Tobacco\\_Case\\_Study.pdf](http://www.eyeblander.com/Data/Uploads/ResourceLibrary/EU_Tobacco_Case_Study.pdf) (accessed 2009 28-October).

El Semanario. *MySpace, Hi5 and Facebook used by kidnappers in Mexico*. 2008 25-August. [http://www.elsemanario.com.mx/news/news\\_display.php?story\\_id=9679](http://www.elsemanario.com.mx/news/news_display.php?story_id=9679) (accessed 2009 18-October).

Electronic Privacy Information Center. *Network Advertising Initiative: Principles not Privacy*. 2000 July. [http://epic.org/privacy/internet/NAI\\_analysis.html](http://epic.org/privacy/internet/NAI_analysis.html) (accessed 2009 12-October).

Elias, Richard. *Spy chiefs target travel cards*. 2008 4-May. <http://scotlandonsunday.scotsman.com/secretservices/Spy-chiefs-target--travel.4049184.jp> (accessed 2009 17-November).

Elliott, Amy-Mae. *Checkins for Charity: The Rise of Geo-Social Good*. 16 November 2010. <http://mashable.com/2010/11/16/charity-checkins/> .

eMarketer. *Cookies Confuse Some Consumers*. 2007 27-July. <http://www.emarketer.com/Article.aspx?R=1005189> (accessed 2009 20-Novemeber).

Espiner, Tom. *U.K. to monitor, store all social-network traffic?* 2009 18-March. [http://news.cnet.com/8301-1009\\_3-10199107-83.html](http://news.cnet.com/8301-1009_3-10199107-83.html) (accessed 2009 28-October).

Eraker, Longhao Wang and Liz. *"Privacy by Design" in the Smart Grid*. 2009 3-December. <http://www.cdt.org/blogs/cdt/privacy-design-smart-grid> (accessed 2009 3-December).

Durrani, Arif. *ZenithOptimedia downgrades global ad spend for 2009 to -9.9%*. 2009 19-October. <http://www.mediaweek.co.uk/news/rss/946435/ZenithOptimedia-downgrades-global-ad-spend-2009--99/> (accessed 2009 11-November).

Davies, Russell. *Media Perspective: Brands must tread carefully around the issue of targeting*. 2009 9-October. <http://www.campaignlive.co.uk/news/features/946138/Media-Perspective-Brands-tread-carefully-around-issue-targeting/> (accessed 2009 24-November).

Deflem, Mathieu. *Tönnies, Ferdinand (1855-1936)*. Edited by Edward Craig. London: Routledge Encyclopedia of Philosophy, 2001.

Delgado, Martin. *Germans plant bugs in our wheelie bins*. 2006 26-August.  
<http://www.dailymail.co.uk/news/article-402439/Germans-plant-bugs-wheelie-bins.html> (accessed 2009 20-November).

Dixon, Patric. *Rfid - 100 Billion Wireless Tagging Devices*. 2004 1-June.  
<http://www.globalchange.com/rfids.htm> (accessed 2009 18-November).

Diaz, Sam. *Ad network at center of third Flash Cookie lawsuit*. 2010 25-August.  
<http://www.zdnet.com/blog/btl/ad-network-at-center-of-third-flash-cookie-lawsuit/38346> (accessed 2010 28-August).

Digital Signage Today. *Signagelive powers Estee Lauder point-of-decision retail signage*. 2008 17-October. <http://www.digitalsignagetoday.com/article.php?id=20872&na=1&s=2> (accessed 2009 17-November).

Dilworth, Dianna. *Zinio debuts digital magazine ad platform; Kia is first advertiser*. 2010 23-February.  
<http://www.dmnews.com/zinio-debuts-digital-magazine-ad-platform-kia-is-first-advertiser/article/164369/> (accessed 2010 29-August).

DoubleClick. *What is Boomerang?* 2008 1-June.  
<http://my.doubleclick.com/support/adx/bin/answer.py?hl=en&answer=106125> (accessed 2009 11-November).

DoubleThink. *How much should you spend on marketing?* 2009 5-May.  
<http://thedoublethink.com/2009/05/how-much-should-you-spend-on-marketing/> (accessed 2009 31-October).

Doughty, Steve. *Spy chips hidden in 2.5 MILLION dustbins: 60pc rise in electronic bugs as council snoopers plan pay-as-you-throw tax Read more: <http://www.dailymail.co.uk/news/article-1255565/Spy-chips-hidden-2-5-million-dustbins-council-snoopers-plan-pay-throw-tax.html#ixzz0ygJvSsJl>*. 5 March 2010. <http://www.dailymail.co.uk/news/article-1255565/Spy-chips-hidden-2-5-million-dustbins-council-snoopers-plan-pay-throw-tax.html> (accessed August 25, 2010).

Doctorow, Cory. *Britain's new Internet law -- as bad as everyone's been saying, and worse. Much, much worse*. 2009 20-November. <http://boingboing.net/2009/11/20/britains-new-interne.html> (accessed 2009 22-November).

Dodson, Sean. *The internet of things*. 2003 9-October.  
<http://www.guardian.co.uk/technology/2003/oct/09/shopping.newmedia> (accessed 2009 20-November).

Dr Peter Harrop, Raghu Das and Glyn Holland. *Apparel RFID 2009-2019*. 2009 1-July. [http://www.idtechex.com/research/reports/apparel\\_rfid\\_2009\\_2019\\_000207.asp](http://www.idtechex.com/research/reports/apparel_rfid_2009_2019_000207.asp) (accessed 2009 21-November).

Fussell, Jim. *Group Classification on National ID Cards as a Factor in Genocide and Ethnic Cleansing*. 2001 15-November. <http://www.preventgenocide.org/prevent/removing-facilitating-factors/IDcards/> (accessed 2009 20-November).

Future of Privacy Forum. *Future of Privacy Forum Unveils New Privacy and Personalization Symbols Finalists*. 2009 4-December. <http://www.futureofprivacy.org/2009/12/04/future-of-privacy-forum-unveils-new-privacy-and-personalization-symbols-finalists/> (accessed 2009 4-December).

FuturizeKorea. *McRFID in Korea*. 2007 11-May. <http://www.futurizekorea.com/entry/McRFID-in-Korea> (accessed 2009 20-November).

Farey-Jones, Daniel. *Castrol uses cameras and digital billboards to talk directly to motorists*. 2009 21-September. <http://www.brandrepublic.com/news/index.cfm?fuseaction=BR.News.Article&nNewsID=939651&sH ashCode=&> (accessed 2009 24-November).

Federal Trade Commission. *FTC Staff Revises Online Behavioral Advertising Principles*. 2009 12-February. <http://www.ftc.gov/opa/2009/02/behavad.shtm> (accessed 2009 24-September).

—. *FTC to Host Public Roundtables to Address Evolving Consumer Privacy Issues*. 2009 15-September. <http://www.ftc.gov/opa/2009/09/privacyrt.shtm> (accessed 2009 11-November).

—. *Online Behavioral Advertising: Moving the Discussion Forward to Possible Self-Regulatory Principles*. 2007 1-December. <http://www.ftc.gov/os/2007/12/P859900stmt.pdf> (accessed 2009 18-November).

Fernandez, Joe. *T-Mobile scandal leaves data protection in tatters*. 2009 19-November. <http://www.marketingweek.co.uk/t-mobile-scandal-leaves-data-protection-in-tatters/3006986.article> (accessed 2009 19-November).

Ferrante, Amanda. *New DMA Response Rate Study Shows Email Still Strong For Conversion Rates*. 2009 16-March. <http://www.demandgenreport.com/home/archives/feature-articles/183-new-dma-response-rate-study-shows-email-still-strong-for-conversion-rates.html> (accessed 2009 11-November).

Fildes, Jonathan. *Web giants unite against Digital Britain copyright plan*. 2009 2-December. <http://news.bbc.co.uk/2/hi/technology/8390623.stm> (accessed 2009 2-December).

Find Biometrics. "Launch of RISE: An International dialogue platform devoted to ethics fo biometrics and security technology." *Find Biometrics*. 2009 1-May.

<http://www.findbiometrics.com/articles/i/6479/> (accessed 2009 20-November).

Fleming, Ryan. *Facebook Projected to Overtake Google*. 2010 23-August.

<http://www.digitaltrends.com/computing/facebook-projected-to-overtake-google/?news=123> (accessed 2010 29-August).

Foley, Stephen. *Advertising: Now we're really going places*. 2010 20-August.

<http://www.independent.co.uk/news/business/analysis-and-features/advertising-now-were-really-going-places-2057351.html> (accessed 2010 29-August).

Foster, Alan Dean. *Sagamanda (A Novel of Near-Future India)*. Amherst, NY: Prometheus Books, 2006.

Fraser, Nancy. *Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy, Habermas and the Public Sphere*. Edited by Calhoun. Cambridge, Mass.: The MIT Press, 1992.

Frenzel, Louis E. *UHF RFID Chip Extends Reading Range To 10 Meters*. 2004 15-November.

<http://electronicdesign.com/Articles/Index.cfm?AD=1&ArticleID=9002> (accessed 2009 21-November).

Fritz, Ben. *Report: YouTube losing less money than thought, happy Hollywood doesn't know it*. 2009 17-June. <http://latimesblogs.latimes.com/entertainmentnewsbuzz/2009/06/report-youtube-losing-less-money-than-thought-and-happy-that-hollywood-doesnt-know-it.html> (accessed 2009 18-November).

Galai', Yaron. *The Aggregation Paradox*. 2006 1-April.

[http://galai.typepad.com/blog/2006/04/announcing\\_the\\_.html](http://galai.typepad.com/blog/2006/04/announcing_the_.html) (accessed 2009 14-November).

Geisler, Norman L. *Christian Ethics*. Leicester: Apollos, 1989.

Gellman, Barton. "The FBI's Secret Scrutiny." *The Washington Post*. 2005 6-November.

[http://www.washingtonpost.com/wp-dyn/content/article/2005/11/05/AR2005110501366\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2005/11/05/AR2005110501366_pf.html) (accessed 2009 20-November).

Gough-Yates, Anna. *Understanding Women's Magazines*. New York, NY: Routledge, 2003.

GovTrack. *H.R. 780: Student Internet Safety Act of 2009* . 2009 13-Novmeber.

<http://www.govtrack.us/congress/bill.xpd?bill=h111-780> (accessed 2009 18-November).

Graham, Gordon. *The Internet: a philosophical inquiry*. London: Routledge, 1999.

Greenfield, Adam. *Everyware: the dawning age of ubiquitous computing*. Berkeley, CA: New Riders, 2006.

—. *Toward urban systems design*. 2009 11-October.

<http://speedbird.wordpress.com/2009/10/11/toward-urban-systems-design/> (accessed 2009 1-December).

IBM. *Identification and tracking of persons using RFID-tagged items in store environments*. 2006 11-July. <http://patft1.uspto.gov/netacgi/nph->

[Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fmetahtml%2FPTO%2Fsearch-adv.htm&r=4&p=1&f=G&l=50&d=PTXT&S1=%22tracking+persons+using+RFID%22&OS=%22tracking+of+persons+using+RFID%22&RS=%22tracking+of+persons+using+RFID%22](http://patft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fmetahtml%2FPTO%2Fsearch-adv.htm&r=4&p=1&f=G&l=50&d=PTXT&S1=%22tracking+persons+using+RFID%22&OS=%22tracking+of+persons+using+RFID%22&RS=%22tracking+of+persons+using+RFID%22) (accessed 2009 20-November).

IDTechEx. *Progress with RFID in Japan*. 2007 24-August.

[http://www.idtechex.com/research/articles/rfid\\_in\\_japan\\_00000728.asp](http://www.idtechex.com/research/articles/rfid_in_japan_00000728.asp) (accessed 2009 20-November).

—. *RFID market developments in Korea*. 2004 25-October.

[http://www.idtechex.com/research/articles/rfid\\_market\\_developments\\_in\\_korea\\_00000099.asp](http://www.idtechex.com/research/articles/rfid_market_developments_in_korea_00000099.asp) (accessed 2009 20-November).

Ilett, Dan. *Korea dishes out \$800m on RFID*. 2005 24-June.

<http://networks.silicon.com/mobile/0,39024665,39131408,00.htm> (accessed 2009 21-November).

In business blog for successful entrepreneurs. *How much money do businesses spend on advertising each year?* 2009 21-March. <http://www.in-business.org.uk/how-much-money-do-businesses-spend-on-advertising-each-year/> (accessed 2009 11-November).

Intel. *Single-chip Cloud Computer*. 2009 1-12. <http://techresearch.intel.com/articles/Tera-Scale/1826.htm> (accessed 2009 1-12).

Internet Encyclopedia of Philosophy. *Jacques Derrida (1930—2004)*. 2005 13-July.

<http://www.iep.utm.edu/derrida/> (accessed 2009 25-November).

Irwin, Manley Rutherford. *Competitive Freedom versus National Security Regulation*. New York: Greenwood Press, 1989.

Hunter, Philip. "ISP data retention becomes a reality." *Computer Fraud & Security* (Elsevier Ltd) 2006, no. 4 (May 2006): 17-18.

Hays, Constance L. *What They Know About You*. 2004 14-November.  
<http://query.nytimes.com/gst/fullpage.html?res=9406E5D7163FF937A25752C1A9629C8B63>  
(accessed 2009 20-November).

Habermas, Jürgen. *Further Reflections on the Public Sphere, Habermas and the Public Sphere*. Edited by Calhoun. Cambridge, Mass.: The MIT Press, 1992.

—. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. English Translation 1989. Translated by Thomas Burger. Cambridge, Massachusetts: The MIT Press, 1962.

Hahn, Cody. *Shopkick and Retail Mobile Rewards*. 19 November 2010.  
<http://www.androidguys.com/2010/11/19/shopkick-retail-mobile-rewards/> (accessed November 20, 2010).

Hallman, Harry. "Solving the Wanamaker Problem." 2006 31-July.  
<http://www.hallman.com/esp/presentations/wanamakerproblemb2b.pdf> (accessed 2009 11-November).

Harris, Leslie. *Internet Safety Act Would Make Us Less Safe*. 2009 12-March.  
<http://abcnews.go.com/Technology/AheadoftheCurve/story?id=7060343> (accessed 2009 18-November).

*HEY FaceBook, This is So NOT Cool - Telling me I haven't Talked On Facebook Lately With Someone Who Is Dead*. 2009 2-November. <http://thinkdodone.typepad.com/iscool/2009/11/hey-facebook-this-is-so-not-cool-telling-me-i-havent-talked-on-facebook-lately-with-someone-who-is-d.html>  
(accessed 2009 20-November).

Heath, Nick. *Gov't: Comms database has to happen*. 2008 16-October.  
<http://news.zdnet.co.uk/communications/0,1000000085,39517303,00.htm> (accessed 2009 18-November).

—. *Gov't: Comms database may not deter serious crime*. 2008 14-August.  
<http://news.zdnet.co.uk/security/0,1000000189,39461433,00.htm> (accessed 2009 18-November).

Heath, R. *The Hidden Power of Advertising: How Low Involvement Processing Influences the Way We Choose Brands*. Admap Monographs, 2001.

Hof, Robert D. *Some matches are not exactly made in heaven*. 1998 24-September.  
<http://www.businessweek.com/1998/40/b3598030.htm> (accessed 2009 18-November).

Home Office. *Home Secretary: 'Communications data is vital'*. 2008 15-October.  
<http://security.homeoffice.gov.uk/ripa/about-ripa/news/comms-data-vital-speech-15Oct08>  
(accessed 2009 18-November).

Hoover's, Inc. *Industry Overview: Magazine Publishers*. 2009 1-June.  
[http://www.hoovers.com/magazine-publishers/--ID\\_\\_124--/free-ind-fr-profile-basic.xhtml](http://www.hoovers.com/magazine-publishers/--ID__124--/free-ind-fr-profile-basic.xhtml) (accessed 2009 14-November).

Jun Lee, Kyoung & Jun, Jungho. "Tag Match Advertising Business Model in Mobile RFID Environment." *IEEE Computer Society*. School of Business & Management Research Institute, Kyung Hee University. 2008 11-November. <http://doi.ieeecomputersociety.org/10.1109/ICCIT.2008.235>  
(accessed 2009 18-November).

June, Laura. *Proposed bill would force ISP, WiFi logs for security, criminal investigations*. 2009 20-February. <http://www.engadget.com/2009/02/20/proposed-bill-would-force-isp-wifi-logs-for-security-criminal/> (accessed 2009 18-November).

Jackson, Randall. *What is the Electronic Product Code (EPC)?* 2007 22-May.  
<http://home.att.net/~rfid/epc.htm> (accessed 2009 20-November).

Jacobi, Jennifer A., Benson, Eric A. & Linden, Gregory D. *US Patent 7113917 - Personalized recommendations of items represented within a database*. 2006 26-September.  
<http://www.patentstorm.us/patents/7113917.html> (accessed 2009 18-November).

Jamieson, Alastair. *Oxford English Dictionary 'will not be printed again'*. 2010 29-August.  
<http://www.telegraph.co.uk/culture/books/booknews/7970391/Oxford-English-Dictionary-will-not-be-printed-again.html> (accessed 2010 29-August).

Japan, Watching kids in. *Watching kids in Japan*. 2007 5-January.  
<http://www.smartmobs.com/2007/01/05/watching-kids-in-japan/> (accessed 2009 20-November).

Jarboe, Greg. *YouTube Lets Marketers Think Global or Act Local at WaWa Hoagiefest*. 2009 22-October. <http://blog.searchenginewatch.com/091022-201448> (accessed 2009 18-November).

Jared. *Francis Bacon | The Modern Scientific Method*. 2008 20-September.  
<http://hubpages.com/hub/francisbacon> (accessed 2009 20-November).

Jha, Alok. *Tesco tests spy chip technology*. 2003 19-July.

<http://www.guardian.co.uk/business/2003/jul/19/supermarkets.uknews> (accessed 2009 21-November).

Johnson, Bobbie. *Code on behavioural web ads launched*. 2009 4-March.

<http://www.guardian.co.uk/technology/2009/mar/04/iab-guideline-behavioural-web-ads> (accessed 2009 18-October).

Johnson, Sarah. *Lobbyists slam product placement consultation*. 2009 17-November.

<http://www.marketingmagazine.co.uk/channel/Television/article/967501/Lobbyists-slam-product-placement-consultation/> (accessed 2009 19-November).

Jordan, Tim. *Cyberpower: the culture and politics of cyberspace and the Internet*. London: Routledge, 1999.

Kawamoto, Dawn. *ISPs: Self-regulation best for ad privacy*. 2008 25-September.

[http://news.cnet.com/8301-1023\\_3-10051244-93.html](http://news.cnet.com/8301-1023_3-10051244-93.html) (accessed 2009 20-November).

Kaess, K. *The Hidden Power of Advertising*. 2001.

<http://www.lowattentionprocessing.com/VCC%20Hidden%20Power%2014.4.02.html> (accessed 2008 10-May).

Kapchanga, Mark. *East Africa: Travelling in the Region? ID Card is All You'll Need*. 2009 12-October.

<http://allafrica.com/stories/200910120119.html> (accessed 2009 20-November).

Kaplan, David. *Privacy Issues Spur EU Scrutiny Over Behavioral Targeting; Facebook's 'Beacon' Provokes Backlash*. 2007 23-November. <http://paidcontent.co.uk/article/419-privacy-issues-spur-eu-scrutiny-over-behavioral-targeting-facebooks-bea/> (accessed 2009 17-October).

Karunakaran, Binu. *India 's UID And The Fantasy Of Dataveillance*. 2009 24-August.

<http://www.countercurrents.org/karun240809.htm> (accessed 2009 20-November).

Karen Mossberger, Caroline J. Tolbert and Ramona S. McNeal. *Digital Citizenship: The Internet, Society, and Participation*. Cambridge, MA: Mit Press, 2007.

Kim, Ryan. *Apple's mobile OS could move to more devices Read more: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2010/08/29/BUJG1F4J0F.DTL#ixzz0y4sRLB00>*. 2010 30-August.

<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2010/08/29/BUJG1F4J0F.DTL> (accessed 2010 30-August).

Kleiner, Kurt. *RFID tags get an intelligence upgrade*. 2009 14-August.

<http://www.newscientist.com/article/dn17616-rfid-tags-get-an-intelligence-upgrade.html?DCMP=OTC-rss&nsref=online-news> (accessed 2009 18-November).

Kotecha, Sima. *FBI probe biggest plot since 9/11*. 2009 18-November.

[http://news.bbc.co.uk/newsbeat/hi/front\\_page/newsid\\_10000000/newsid\\_10003000/10003036.stm](http://news.bbc.co.uk/newsbeat/hi/front_page/newsid_10000000/newsid_10003000/10003036.stm) (accessed 2009 19-November).

Kravets, David. *Obama Wants Computer Privacy Ruling Overturned*. 2009 25-November.

<http://www.wired.com/threatlevel/2009/11/obama-wants-computer-privacy-ruling-overturned/> (accessed 2009 25-November).

Lutz, W.E. *Monitoring Your Movements*. 1997 28-February. <http://www.asis.org/Bulletin/Feb-97/lutz.html> (accessed 2009 18-November).

Lydall, Ross. *Police make 3,000 requests for data from Oyster cards*. 2008 21-February.

<http://www.thisislondon.co.uk/standard/article-23440524-police-make-3000-requests-for-data-from-oyster-cards.do> (accessed 2009 18-November).

Lytle, J Mark. *Japanese RFID phones ready to battle for West*. 2008 20-August.

<http://www.techradar.com/news/phone-and-communications/mobile-phones/japanese-rfid-phones-ready-to-battle-for-west-454283> (accessed 2009 20-November).

—. *McDonald's serves Java with mobile phone menu*. 2008 20-May.

<http://www.techradar.com/news/phone-and-communications/mobile-phones/mcdonalds-serves-java-with-mobile-phone-menu-370050> (accessed 2009 22-November).

Laurant, Cedric. *Privacy & Human Rights 2006: United States of America*. EPIC. 2007 18-December.

[http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-559478](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-559478) (accessed 2009 20-November).

—. *Privacy and Human Rights 2006: Japan*. 2007 18-December.

[http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-559524#\[56\]](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-559524#[56]) (accessed 2009 20-November).

—. *Privacy and Human Rights 2006: South Korea*. 2007 18-December.

[http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-103782](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-103782) (accessed 2009 20-November).

Laurent, Cedric. *Privacy and Human Rights 2006 - Republic of India*. 2007 18-December. [http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-559529](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-559529) (accessed 2009 20-November).

Lacey, Marc. *Exploiting Real Fears With 'Virtual Kidnappings'*. 2008 29-April. <http://www.nytimes.com/2008/04/29/world/americas/29mexico.html> (accessed 2009 12-October).

Lang, KJ. *Facebook friend turns into Big Brother*. 2009 19-November. [http://www.lacrossetribune.com/news/local/article\\_Off40f7a-d4d1-11de-afb3-001cc4c002e0.html](http://www.lacrossetribune.com/news/local/article_Off40f7a-d4d1-11de-afb3-001cc4c002e0.html) (accessed 2009 20-November).

Leake, Christopher. *Drivers' details sold by DVLA are used in bizarre roadside adverts for Castrol Read more: <http://www.dailymail.co.uk/news/article-1216414/Now-drivers-details-sold-DVLA-used-bizarre-roadside-adverts-Castrol.html#ixzz0Y1AKSctQ>*. 2009 27-September. <http://www.dailymail.co.uk/news/article-1216414/Now-drivers-details-sold-DVLA-used-bizarre-roadside-adverts-Castrol.html> (accessed 2009 20-November).

Lockie, M. "Somalia leads in Africa with ePassport rollout." *Card Technology Today* (Elsevier Ltd) 19, no. 2 (February 2007): 6-7.

Lomas, Natasha. *Q&A: Kurzweil on tech as a double-edged sword*. 2008 19-November. [http://news.cnet.com/8301-11386\\_3-10102273-76.html](http://news.cnet.com/8301-11386_3-10102273-76.html) (accessed 2009 20-November).

—. *RFID could be in all cell phones by 2010*. 2009 25-June. [http://news.zdnet.com/2100-9595\\_22-315292.html](http://news.zdnet.com/2100-9595_22-315292.html) (accessed 2009 18-November).

Number 10. *Stop ISP's from breaching customers privacy via advertising technologies*. 2008 19-May. <http://petitions.number10.gov.uk/ispphorm/> (accessed 2008 1-July).

NZ Herald. *Kiwis moving closer to cashless society*. 2009 22-June. [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10579940&pnum=1](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10579940&pnum=1) (accessed 2009 22-November).

NationMaster Encyclopedia. *Scientia potentia est*. 2009 20-November. <http://www.statemaster.com/encyclopedia/Scientia-potentia-est> (accessed 2009 20-November).

New York Times. *U.S. Attacked: A Day of Grim Terror in New York and Washington*. 2001 11-September. <http://www.nytimes.com/indexes/2001/09/11/> (accessed 2009 18-November).

Newling, Dan. *Britons 'could be microchipped like dogs in a decade' Read more: <http://www.dailymail.co.uk/news/article-413345/Britons-microchipped-like-dogs->*

*decade.html#ixzz0XhV84ZH0*. 2006 30-October. <http://www.dailymail.co.uk/news/article-413345/Britons-microchipped-like-dogs-decade.html> (accessed 200 18-November).

Ngarambe, Alex. *UK firm wins \$18m Rwanda ID tender*. East African Business Week. 2008 31-March. <http://africannewsanalysis.blogspot.com/2008/03/uk-firm-wins-18m-rwanda-id-tender.html> (accessed 2009 21-November).

NielsenWire. *Global Ad Spend Still Down, but Showing Signs of Improvement*. 2009 1-October. <http://blog.nielsen.com/nielsenwire/consumer/global-ad-spend-still-down-but-showing-signs-of-improvement/> (accessed 2009 11-November).

Murph, Darren. *Blinking LEDs to give QR codes a run for their (ad) money*. 2009 23-November. <http://www.engadget.com/2009/11/23/bleeping-leds-to-give-qr-codes-a-run-for-their-ad-money/> (accessed 2009 23-November).

—. *Samsung prepping RFID-enabled refrigerator*. 2007 4-January. <http://www.engadget.com/2007/01/04/samsung-prepping-rfid-enabled-refrigerator/> (accessed 2009 21-November).

Murthy, Raja. *Secrecy fears over India's epic ID project*. 2009 20-November. [http://www.atimes.com/atimes/South\\_Asia/KK20Df07.html](http://www.atimes.com/atimes/South_Asia/KK20Df07.html) (accessed 2009 21-November).

Mwijagye, Paul. *Uganda's ID programme reaches second phase*. 2009 19-January. [http://www.busiweek.com/index.php?option=com\\_content&task=view&id=914&Itemid=29](http://www.busiweek.com/index.php?option=com_content&task=view&id=914&Itemid=29) (accessed 2009 20-November).

Myung-Je, Chung. *Dream Society Controlled by Ubiquitous RFID*. 2009 10-July. <http://www.koreaitimes.com/story/4104/dream-society-controlled-ubiquitous-rfid> (accessed 2009 20-November).

—. *Dream Society Controlled by Ubiquitous RFID*. 2009 10-July. <http://www.koreaitimes.com/story/4104/dream-society-controlled-ubiquitous-rfid> (accessed 2009 1-November).

Macavinta, Courtney. "DoubleClick, Abacus merge in \$1.7 billion deal." *CNet News.com*. 1999 24-November. <http://www.news.com/2100-1023-233526.html> (accessed 2007 7-December).

MacFarlane, Jo. *Microchip that tells the GP if you've taken your pills Read more:* <http://www.dailymail.co.uk/health/article-1169305/Microchip-tells-GP-8217-ve-taken-pills.html#ixzz0XhhNj4UR>. 2009 12-April. <http://www.dailymail.co.uk/health/article-1169305/Microchip-tells-GP-8217-ve-taken-pills.html> (accessed 2009 18-November).

Maher, Rory. *Large Brands Experimenting With Location-Based Mobile Advertising*. 2010 17-March. <http://www.tbiresearch.com/for-mobile-advertisers-its-all-about-location-location-location-2010-3> (accessed 2010 12-June).

Mason, Amanda Andrews & Rowena. *Global advertising spend to tumble \$21bn*. 2008 7-December. <http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/3659492/Global-advertising-spend-to-tumble-21bn.html> (accessed 2009 11-November).

Marshall, Jack. *EU Adopts Law Requiring User Consent for Cookies*. 2009 10-November. <http://www.clickz.com/3635624> (accessed 2009 20-November).

—. *EU Proposal Could Cripple Common Web Ad Practices*. 2009 6-November. <http://www.clickz.com/3635590> (accessed 2009 20-November).

McCue, Andy. *Gillette slams privacy concerns over RFID tracking*. 2003 14-August. <http://networks.silicon.com/lans/0,39024663,10005596,00.htm> (accessed 2009 21-November).

McCullagh, Declan. *Your ISP as Net watchdog*. 2005 16-June. [http://news.cnet.com/Your-ISP-as-Net-watchdog/2100-1028\\_3-5748649.html](http://news.cnet.com/Your-ISP-as-Net-watchdog/2100-1028_3-5748649.html) (accessed 2009 18-November).

McIntire, Liz and Albrecht, Katherine. *The Spychips Threat*. Nashville, Tennessee: Nelson Current, 2006.

McMeeken, Roxane. *I'll be watching you: Serious Fraud Office*. 2009 20-November. <http://www.building.co.uk/story.asp?sectioncode=659&storycode=3153428> (accessed 2009 20-November).

MediaWeek. *Storm brewing over TV viewing figures as Sky muscles in*. 2004 27-April. <http://www.mediaweek.co.uk/news/515552/> (accessed 2009 18-November).

Meijas, Stephen. *Facebook and Express Kidnapping: Alert, Venezuela*. 2008 24-June. <http://orhpositivo.wordpress.com/2008/06/24/facebook-y-secuestro-express-alerta-venezuela/> (accessed 2009 18-October).

METI, Soumu-Sho and Keizai-Sahgo Sho aka. *Japanese RFID Privacy Guideline Released*. 2004 8-June. [http://www.rfidbuzz.com/news/2004/japanese\\_rfid\\_privacy\\_guideline\\_released.html](http://www.rfidbuzz.com/news/2004/japanese_rfid_privacy_guideline_released.html) (accessed 2009 20-November).

Mikkelsen, Randall. *World economic crisis is top security threat: U.S.* 2009 12-February. <http://www.reuters.com/article/topNews/idUSTRE51B64820090212> (accessed 2009 28-October).

Mill, John Stuart. *On Liberty*. People's Edition. London: Longmans, Green & Co., 1913.

Miller, Claire Cain. *Zappos Gets Personal, but Not Too Personal*. 2009 29-October.  
<http://bits.blogs.nytimes.com/2009/10/29/zappos-gets-personal-but-not-too-personal/> (accessed 2009 15-November).

Mills, Elinor. *EFF sues feds for info on social-network surveillance*. 2009 1-December.  
[http://news.cnet.com/8301-27080\\_3-10407224-245.html](http://news.cnet.com/8301-27080_3-10407224-245.html) (accessed 2009 1-December).

Moxie, Heather. *And the Epic Facebook Wars Continue*. 2009 13-November.  
<http://thaniknowmyself.blogspot.com/2009/11/and-epic-facebook-wars-continue.html> (accessed 2009 20-November).

MoveOn. *Facebook must respect privacy*. 2007 30-November.  
<http://civ.moveon.org/facebookprivacy/071120email.html> (accessed 2007 1-December).

Mobile Beyond. *Mobile Internet Research Report Reveals Massive Mobile Internet Growth*. 2010 26-February. <http://mobilebeyond.net/mobile-internet-research-report-reveals-massive-mobile-internet-growth/> (accessed 2010 28-August).

Moncur, Michael. *Quotation #35028 from Michael Moncur's (Cynical) Quotations*. 2002 1-December.  
<http://www.quotationspage.com/quote/35028.html> (accessed 2009 18-November).

Morgan, Robert. *India's ID cards challenge*. 2009 7-July.  
<http://www.computerweekly.com/Articles/2009/07/27/237048/India39s-ID-cards-challenge.htm> (accessed 2009 19-September).

Morphy, Erika. *Possible RFID-Cancer Link Rattles Market*. 2007 11-July.  
<http://www.technewsworld.com/story/59295.html?wlc=1260122415> (accessed 2009 1-December).

Morton, Simon. *Barcelona clubbers get chipped*. 2004 29-September.  
<http://news.bbc.co.uk/1/hi/technology/3697940.stm> (accessed 2009 20-November).

Out-Law News. *Commission forms industry body to solve behavioural advertising problems*. 2009 16-November. <http://www.out-law.com/page-10526> (accessed 2009 18-November).

Oxford University. *Oxford English Reference Dictionary*. Edited by Judy Pearsal and Bill Trumble. Vol. 2nd Edition. Oxford: Oxford University Press, 2002.

Oates, John. *Orange ditches Phorm*. 2008 30-October.  
[http://www.theregister.co.uk/2008/10/30/orange\\_wont\\_use\\_phorm/](http://www.theregister.co.uk/2008/10/30/orange_wont_use_phorm/) (accessed 2009 18-November).

O'Connell, Pamela Licalzi. *Korea's High-Tech Utopia, Where Everything Is Observed*. 2005 5-October. <http://www.nytimes.com/2005/10/05/technology/techspecial/05oconnell.html> (accessed 2009 20-November).

O'Connor, Mary Catherine. *Great Wolf Water Park Launches RFID*. 2006 22-March. <http://www.rfidjournal.com/article/articleview/2211/1/1/> (accessed 2009 20-November).

—. *RFID-Enabled Billboards Talk to Mini Motorists*. 2007 29-January. <http://www.rfidjournal.com/article/articleview/3005/> (accessed 2009 20-November).

Ogilvy, David. *Ogilvy on Advertising*. New York: Vintage Books USA, 1985.

OLEDInfo. *More details on Samsung's OLED e-passport prototype*. 2009 19-June. <http://www.oled-info.com/more-details-samsungs-oled-e-passport-prototype> (accessed 2009 20-November).

Olsen, Stefanie. *U.S. judge drops DoubleClick privacy case*. 2001 31-March. <http://news.cnet.com/2100-1023-255028.html> (accessed 2009 18-October).

O'Malley, Gavin. *Study: CMOs Want More Cross-Channel Data*. 2009 15-June. [http://www.mediapost.com/publications/?fa=Articles.showArticle&art\\_aid=107860](http://www.mediapost.com/publications/?fa=Articles.showArticle&art_aid=107860) (accessed 2009 15-June).

OpenCongress. *H.R. 780 - Student Internet Safety Act of 2009*. 2009 16-June. <http://www.opencongress.org/bill/111-h780/show> (accessed 2009 18-November).

Quick, Darren. *'Smart Trash' cash for recycling concept*. 2009 2-November. <http://www.gizmag.com/smart-trash-recycling/13254/> (accessed 2009 20-November).

Packard, Vance. *The Hidden Persuaders*. Brooklyn, NY: Ig Publishing, 1957.

Pai, Uday Lal. *Indian E-passport Project On A Roll*. 2009 1-September. <http://www.automationworld.com/news-5930> (accessed 2009 20-November).

Pasternack, Dave. "Google and DoubleClick: Risky business?" *DM News*. 2007 3-April. <http://www.dmnews.com/Google-and-DoubleClick-Risky-business/article/95312/> (accessed 2007 May).

PC Magazine. *Contextual Marketing*. 2009 31-October. [http://www.pcmag.com/encyclopedia\\_term/0,2542,t=contextual+marketing&i=56351,00.asp](http://www.pcmag.com/encyclopedia_term/0,2542,t=contextual+marketing&i=56351,00.asp) (accessed 2009 31-October).

Pesce, Mark. *Digital Citizenship*. 2009 15-April. <http://blog.futurestreetconsulting.com/?p=132> (accessed 2009 3-December).

Pfanner, Eric. *Rate of Decline in Global Ad Spending Slows, Report Shows*. 2009 30-September. <http://www.nytimes.com/2009/10/01/technology/internet/01ads.html> (accessed 2009 11-November).

Pink Tentacle. *Toshiba tests phone-controlled billboard game*. 2009 26-March. <http://pinktentacle.com/tag/toshiba/> (accessed 2009 20-November).

Porter, Andrew & Rayner, Gordon. *Data on 25m benefits claimants lost in post*. 2007 20-November. <http://www.telegraph.co.uk/news/newsttopics/politics/1569897/Data-on-25m-benefits-claimants-lost-in-post.html> (accessed 2009 18-November).

Porter, Henry. "It is time to resist." *Guardian*. 2009 25-February. <http://www.guardian.co.uk/commentisfree/henryporter/2009/feb/25/civil-liberties-surveillance> (accessed 2009 21-November).

Presidency of the Council fo the European Union. *On RFID – The Next Step to the Internet of Things*. 2007 14-November. <http://www.statewatch.org/news/2007/nov/eu-rfid-of-things.pdf> (accessed 2009 19-November).

Privacy International. *Silenced - South Korea*. 2003 21-September. [http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-103782](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-103782) (accessed 2009 20-November).

—. *The 2007 International Privacy Ranking*. 2007 18-December. [http://www.privacyinternational.org/article.shtml?cmd\[347\]=x-347-559597&als\[theme\]=Data%20Protection%20and%20Privacy%20Laws](http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-559597&als[theme]=Data%20Protection%20and%20Privacy%20Laws) (accessed 2009 18-November).

Print in The Mix. *2009 Direct Marketing Campaigns - Overall Response Rates (Offline)*. 2009 16-March. <http://printinthemix.rit.edu/fastfacts/show/233> (accessed 2009 11-November).

Progressive Grocer. *Tesco Trials New Technology With IBM to Improve Product Availability for Shoppers*. 2003 16-October. <http://www.allbusiness.com/retail-trade/food-stores/4255857-1.html> (accessed 2009 21-November).

Sullivan, Laurie. *Levi Ships RFID-Tagged Jeans, Dockers*. 2006 28-April. <http://www.crn.com/it-channel/187002054;jsessionid=R4YHPEYA4XP4NQE1GHRSKH4ATMY32JVN> (accessed 2009 20-November).

— . *Loyal To RFID*. 2004 19-May.

<http://www.informationweek.com/news/mobility/RFID/showArticle.jhtml?articleID=20800056>  
(accessed 2009 20-November).

Supply Chain Digest. *Looking Back at the Wal-Mart RFID Time Line*. 2009 23-February.

[http://www.scdigest.com/assets/On\\_Target/09-02-23-1.php?cid=2275&ctype=content](http://www.scdigest.com/assets/On_Target/09-02-23-1.php?cid=2275&ctype=content) (accessed 2009 20-November).

Susan M. Jacksack, J.D. *Setting a Marketing Budget* . Start Run & Grow a Successful Small Business. 2008 1-June. [http://www.score.org/m\\_pr\\_11.html](http://www.score.org/m_pr_11.html) (accessed 2009 11-November).

Swedberg, Claire. *McDonald's Japan Brings Discounts to Phones*. 2008 2-June.

<http://www.rfidjournal.com/article/view/4108/1> (accessed 2009 20-November).

— . *Schuitema Tests NFC Phones in a C1000 Grocery Store*. 2007 10-September.

<http://www.rfidjournal.com/article/articleview/3605/> (accessed 2009 20-November).

Saenz, Aaron. *Programmable Matter: Claytronics or Gershenfeld*. 2009 23-July.

<http://singularityhub.com/tag/catoms/> (accessed 2009 20-November).

Sanke, Fuji. *Hitachi develops RFID powder*. 2007 14-February.

<http://pinktentacle.com/2007/02/hitachi-develops-rfid-powder/> (accessed 2009 20-November).

Schmid, Charles W. *The Networked Physical World* . 1999 21-November.

[http://www.rand.org/scitech/stpi/ourfuture/Internet/sec4\\_networked.html](http://www.rand.org/scitech/stpi/ourfuture/Internet/sec4_networked.html) (accessed 2009 21-November).

SCOSTA: Smart Card Operating System for Transport Application. *Guidance to Applicant For Smart card product / Microelectronics Module Certification*. 2006 1-August.

<http://www.scosta.gov.in/SCPC%2002%2003.htm> (accessed 2009 20-November).

Silver, James. *Can Rupert Murdoch save online news?* 2009 30-June. <http://www.wired.co.uk/wired-magazine/archive/2009/08/start/can-murdoch-save-online-news.aspx> (accessed 2009 22-November).

Singel, Ryan. *You Deleted Your Cookies? Think Again*. 2009 10-August.

<http://www.wired.com/epicenter/2009/08/you-deleted-your-cookies-think-again/> (accessed 2009 12-November).

— . *Analysis: Google's Ad Targeting Turns Algorithms on You*. 2009 11-March.

<http://www.wired.com/epicenter/2009/03/google-ad-annou/> (accessed 2009 17-November).

—. *Facebook Beacon Tracking Program Draws Privacy Lawsuit*. 2008 14-August.  
<http://www.wired.com/threatlevel/2008/08/facebook-beacon/> (accessed 2010 28-February).

Singh, Raminder. *Leaked documents says UID to locate illegal migrants*. 2009 21-November.  
<http://www.merineews.com/article/leaked-documents-says-uid-to-locate-illegal-migrants/15789030.shtml> (accessed 2009 22-November).

Shute, Tish. *Towards a Newer Urbanism: Talking Cities, Networks, and Publics with Adam Greenfield*. 2009 27-February. <http://www.ugotrade.com/2009/02/27/towards-a-newer-urbanism-talking-cities-networks-and-publics-with-adam-greenfield/> (accessed 2009 20-November).

Shachtman, Noah. *Top Pentagon Scientists Fear Brain-Modified Foes*. 2008 9-June.  
<http://www.wired.com/dangerroom/2008/06/jason-warns-of/> (accessed 2009 21-November).

Shankland, Stephen. *Intel hopes 48-core chip will solve new challenges*. 2009 2-December.  
[http://news.cnet.com/8301-30685\\_3-10407818-264.html](http://news.cnet.com/8301-30685_3-10407818-264.html) (accessed 2009 2-December).

Shanthi Kalathil, Taylor Boas. *Open Networks, Closed Regimes*. 2003 31-July.  
<http://www.carnegieendowment.org/events/index.cfm?fa=eventDetail&id=573&&prog=zch&proj=zdr> (accessed 2009 19-November).

Smit, Martina. *Tube and bus cash fairs soar*. 2006 12-September.  
[http://www.thisislocalondon.co.uk/news/916347.m5ec/?from=ec&to=916347&l=tube\\_and\\_bus\\_cash\\_fairs\\_soar](http://www.thisislocalondon.co.uk/news/916347.m5ec/?from=ec&to=916347&l=tube_and_bus_cash_fairs_soar) (accessed 2009 18-November).

Specht, Barbara. "EU-India Summit: Opportunity to hold the ongoing EU-India free trade agreement negotiations and rethink trade relations from a sustainable development and gender equality perspective." *WIDE*. 2009 5-October.  
[http://62.149.193.10/wide/download/PressRelease\\_EUIndiaSummit.pdf?id=1040](http://62.149.193.10/wide/download/PressRelease_EUIndiaSummit.pdf?id=1040) (accessed 2009 20-November).

Spence, Nick. *More Shoppers Are Eyeing Tablets Than Laptops, Netbooks, PCs*. 2010 29-August.  
[http://www.pcworld.com/article/203889/more\\_shoppers\\_are\\_eyeing\\_tablets\\_than\\_laptops\\_netbooks\\_pcs.html](http://www.pcworld.com/article/203889/more_shoppers_are_eyeing_tablets_than_laptops_netbooks_pcs.html) (accessed 2010 29-August).

Stableford, Dylan. *Magazine Uses RFID Tags to Connect to Internet*. 2009 30-April.  
<http://www.foliomag.com/2009/magazine-uses-rfid-tags-connect-internet> (accessed 2009 20-November).

Stevens, Tim. *Wireless Dynamics brings the joys of inventory management to the iPhone with the iCarte RFID reader*. 2009 19-November. <http://www.engadget.com/2009/11/19/wireless-dynamics-brings-the-joys-of-inventory-management-to-the/> (accessed 2009 19-November).

Stein, Rob. "Implantable Medical ID Approved By FDA." *Washington Post*. 2004 14-October. <http://www.washingtonpost.com/wp-dyn/articles/A29954-2004Oct13.html> (accessed 2009 20-November).

Stepanek, Marcia. *Washington Must Step In to Protect E-Privacy*. 1999 26-July. [http://www.businessweek.com/1999/99\\_30/b3639036.htm](http://www.businessweek.com/1999/99_30/b3639036.htm) (accessed 2009 18-October).

Stirling, Bruce. *Your chance to intervene in ubiquitous/pervasive New York City*. 2008 30-April. [http://www.wired.com/beyond\\_the\\_beyond/2008/04/your-chance-to/](http://www.wired.com/beyond_the_beyond/2008/04/your-chance-to/) (accessed 2009 20-November).

Story, Louise. *Where Every Ad Knows Your Name*. 2008 10-March. <http://bits.blogs.nytimes.com/2008/03/10/where-every-ad-knows-your-name/> (accessed 2009 24-November).

Ruvinsky, Jessica. *Haptic technology simulates the sense of touch -- via computer*. 2003 2-April. <http://news.stanford.edu/news/2003/april2/haptics-42.html> (accessed 2009 21-November).

Ruth, Jenny. *Sky Network TV - John Fellet*. 2003 11-September. <http://www.sharechat.co.nz/article/cb196ca4/sky-network-tv-john-fellet.html> (accessed 2009 18-November).

Ray, Bill. *Apple IDs the next-generation iPhone*. 2009 10-November. [http://www.reghardware.co.uk/2009/11/10/iphone\\_nfc/](http://www.reghardware.co.uk/2009/11/10/iphone_nfc/) (accessed 2009 20-November).

Ramakrishan, R. Ramachanran & Venkitesh. *A digital Pandora's box*. 2005 30-July. <http://www.flonnet.com/fl2216/stories/20050812003902500.htm> (accessed 2009 18-November).

Rao, Leena. *Foursquare Now 3 Million Strong*. 2010 29-August. <http://techcrunch.com/2010/08/29/foursquare-now-3-million-strong/> (accessed 2010 30-August).

Reuters. *Google CEO sees free cell phone service*. 2006 13-November. <http://www.msnbc.msn.com/id/15700344/> (accessed 2009 1-December).

Reding, Viviane. "A European Digital Agenda for the New Digital Consumer." *Europa*. 2009 12-November. <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/524> (accessed 2009 14-November).

RF Design. *RFID inmate tracking systems for 19 U.S. immigration detention facilities*. 2008 25-November. [http://rfdesign.com/next\\_generation\\_wireless/news/inmate\\_tracking\\_systems\\_1125/](http://rfdesign.com/next_generation_wireless/news/inmate_tracking_systems_1125/) (accessed 2009 21-November).

RFID Update. *Report: South Korea Becomes a Force in RFID*. 2006 27-March. <http://www.rfidupdate.com/articles/index.php?id=1082> (accessed 2009 20-November).

RFID Buzz. *Tesco CEO rejects RFID privacy worries*. 2004 7-April. [http://www.rfidbuzz.com/news/2004/tesco\\_ceo\\_rejects\\_rfid\\_privacy\\_worries.html](http://www.rfidbuzz.com/news/2004/tesco_ceo_rejects_rfid_privacy_worries.html) (accessed 2009 24-November).

RFID Journal. *Benetton Explains RFID Privacy Flap*. 2003 23-June. <http://www.rfidjournal.com/article/articleview/471/1/1> (accessed 2009 21-November).

—. *Japan to Push RFID Development*. 2003 20-February. <http://www.rfidjournal.com/article/articleview/312/1/1/> (accessed 2009 22-November).

RFID Journal LLC. *General RFID Information*. 2009 1-June. [http://www.aimglobal.org/technologies/rfid/rfid\\_faqs.asp](http://www.aimglobal.org/technologies/rfid/rfid_faqs.asp) (accessed 2009 21-November).

Richard Kwok, Ph.D. "Final Report Use of 1) Sensors and 2) Radio Frequency ID (RFID) for the National Children's Study." 2004 25-August. <http://www.nationalchildrensstudy.gov/research/methodspilot/Pages/Final-Report-Use-of-1-Sensors-and-2-Radio-Frequency-ID-RFID-for-the-National-Children-s-Study.pdf> (accessed 2009 20-November).

Riley, Duncan. *45% of Europeans watch TV online: Motorola Study*. 2007 3-May. <http://www.techcrunch.com/2007/05/03/45-of-europeans-watch-tv-online/> (accessed 2009 18-October).

RNCOS E-Services Private Ltd. *Global RFID Market Analysis till 2010*. 2009 1-July. [http://www.researchandmarkets.com/reports/575246/global\\_rfid\\_market\\_analysis\\_till\\_2010](http://www.researchandmarkets.com/reports/575246/global_rfid_market_analysis_till_2010) (accessed 2009 21-november).

Roberti, Mark. *Wal-Mart Relaunches EPC RFID Effort, Starting With Men's Jeans and Basics*. 23 July 2010. <http://www.rfidjournal.com/article/view/7753/> (accessed August 28, 2010).

Rogers, James. *London fare freeze to boost smartcard use*. 2003 19-August. <http://www.computerweekly.com/Articles/2003/08/20/196683/London-fare-freeze-to-boost-smartcard-use.htm> (accessed 2009 21-November).

Rosen, Jeffrey. "The Web Means the End of Forgetting." *New York Times*. 19 July 2010.  
[http://www.nytimes.com/2010/07/25/magazine/25privacy-t2.html?\\_r=1&ref=technology](http://www.nytimes.com/2010/07/25/magazine/25privacy-t2.html?_r=1&ref=technology) (accessed November 12, 2010).

RSA Laboratories. *RFID Privacy and Security*. 2009 1-June.  
<http://www.rsa.com/rsalabs/node.asp?id=2115> (accessed 2009 20-November).

Takahashi, Dean. *Xerox develops silver ink for wearable or throwaway electronics*. 2009 26-October.  
<http://digital.venturebeat.com/2009/10/26/xerox-developers-a-silver-ink-that-can-be-used-to-wearable-or-throwaway-electronics/> (accessed 2009 20-November).

Tan, Aaran. *RFID tracks shopping habits*. 2006 5-July.  
<http://news.zdnet.co.uk/communications/0,1000000085,39278197,00.htm> (accessed 2009 22-November).

Times Online. *ID cards to go on sale for the first time in Manchester*. 2009 17-November.  
<http://www.timesonline.co.uk/tol/news/politics/article6919333.ece> (accessed 2009 20-November).

The Register. *Oyster card evolves into OnePulse*. 2007 11-September.  
[http://www.theregister.co.uk/2007/09/11/oyster\\_card\\_onepulse/](http://www.theregister.co.uk/2007/09/11/oyster_card_onepulse/) (accessed 2009 20-November).

They Made America. *John Wanamaker: Department Store*. 2004 30-June.  
[http://www.pbs.org/wgbh/theymadeamerica/whomade/wanamaker\\_lo.html](http://www.pbs.org/wgbh/theymadeamerica/whomade/wanamaker_lo.html) (accessed 2009 14-November).

Tomek, Allison. "VeriChip Corporation to Present its Glucose-Sensing RFID Microchip and Virus Triage Detection System for the H1N1 Virus at ID World International Congress." *VeriChip*. 2009 29-October. <http://www.verichipcorp.com/pressreleases/102909.html> (accessed 2009 14-November).

Toto, Serkan. *Yahoo Japan plans to scan passersbys, put up personalized content on billboards*. 2009 9-April. <http://www.crunchgear.com/2009/04/09/yahoo-japan-plans-to-scan-passersbys-put-up-personalized-content-on-billboards/> (accessed 2009 20-November).

Trendhunters. *User Targeted Ads Via RFID*. 2007 4-January.  
<http://www.trendhunter.com/trends/user-targeted-ads-via-rfid-attention-shopper-this-ad-is-just-for-you/> (accessed 2009 20-November).

Trochim, William M.K. *Deduction & Induction*. 2006 20-October.  
<http://www.socialresearchmethods.net/kb/dedind.php> (accessed 2009 24-November).