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MAPPING DIGITAL MEDIA:

ONLINE ADVERTISING: ORIGINS, EVOLUTION, AND IMPACT ON PRIVACY

By Fernando Bermejo

OPEN SOCIETY FOUNDATIONS

Online Advertising: Origins, Evolution, and Impact on Privacy

WRITTEN BY

Fernando Bermejo[1]

Over the past decade and a half, advertising has become a fundamental element of the internet's economy. It fuels most prominent services and platforms, including search engines, social networks, and news sites.

Online advertising differs from offline advertising in many ways. It is a complex and continuously evolving field that uses a variety of formats, targeting techniques, and pricing models.

In all its forms, however, it relies on *data about users*. As a result, privacy has become a central topic for industry and policy discussions.

This paper surveys the evolution and various forms of online advertising, and examines the privacy-related issues that any serious policy in this area needs to address. It foresees that online advertising will be shaped by the struggle between proponents of government regulation on the one hand, and of self-regulation on the other.

1. Fernando Bermejo teaches Communication at Universidad Rey Juan Carlos and IE University in Spain, and is a faculty associate at the Berkman Center for Internet & Society, Harvard University.

Mapping Digital Media

The values that underpin good journalism, the need of citizens for reliable and abundant information, and the importance of such information for a healthy society and a robust democracy: these are perennial, and provide compass-bearings for anyone trying to make sense of current changes across the media landscape.

The standards in the profession are in the process of being set. Most of the effects on journalism imposed by new technology are shaped in the most developed societies, but these changes are equally influencing the media in less developed societies.

The Media Program of the Open Society Foundations has seen how changes and continuity affect the media in different places, redefining the way they can operate sustainably while staying true to values of pluralism and diversity, transparency and accountability, editorial independence, freedom of expression and information, public service, and high professional standards.

The **Mapping Digital Media** project, which examines these changes in-depth, aims to build bridges between researchers and policy-makers, activists, academics and standard-setters across the world.

The project assesses, in the light of these values, the global opportunities and risks that are created for media by the following developments:

- the switchover from analog broadcasting to digital broadcasting
- growth of new media platforms as sources of news
- convergence of traditional broadcasting with telecommunications.

As part of this endeavor, the Open Society Media Program has commissioned introductory papers on a range of issues, topics, policies and technologies that are important for understanding these processes. Each paper in the **Reference Series** is authored by a recognised expert, academic or experienced activist, and is written with as little jargon as the subject permits.

The reference series accompanies reports into the impact of digitization in 60 countries across the world. Produced by local researchers and partner organizations in each country, these reports examine how these changes affect the core democratic service that any media system should provide – news about political, economic and social affairs. Cumulatively, these reports will provide a much-needed resource on the democratic role of digital media.

The **Mapping Digital Media** project builds policy capacity in countries where this is less developed, encouraging stakeholders to participate and influence change. At the same time, this research creates a knowledge base, laying foundations for advocacy work, building capacity and enhancing debate.

The **Mapping Digital Media** is a project of the Open Society Media Program, in collaboration with the Open Society Information Program.

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I. Introduction

Advertising has constituted the life blood of the mass media for many decades. In recent years, the relationship of the traditional or so-called 'legacy' media with advertising has been greatly affected by online communication.

This has been, in part, because the internet has attracted a significant share of advertising money away from the offline media—particularly in the case of classified advertisements, which have found a natural home on the internet, depriving print publications of much of their ad revenue. And, in part, because when traditional media tried to replicate their advertising model online, they encountered both a huge number of competing outlets—causing a real inflation of advertising inventory—and new advertising logics, forms, and methods that do not adapt well to the traditional advertising business and have particular economic and legal implications.

The novelty of online advertising can largely be explained by three distinctive features of online communication:

- A record of online activity is routinely generated and automatically collected as part of the activity itself. The internet is the first advertising vehicle that leaves a trace of all its activities.
- Previous communication media were for the most part *unidirectional*—there was a clear distinction between senders, usually professional media organizations, and receivers, usually large diverse audiences—and their range of uses was limited. The internet, by contrast, allows for endless forms of user activity: reading, viewing, clicking, writing, uploading, playing, purchasing, etc.
- There is no predetermined link between specific ads and specific pieces of content, or between specific ads and specific users. In other words, every online request can return a different ad. Over the internet, ads and content can be managed separately and per request.

These three features go a long way to explain the evolution of online advertising over the past 15 years and some of its most recent developments. They also help to explain most of the policy issues raised by online advertising.

II. Advertising and Internet Economic Models

Considering the current state of the internet worldwide it is possible to conclude that beyond the impressive variety of content and services, and the diversity of organizational structures producing them, three general economic models drive and shape cyberspace: the "gift", "pay", and "advertising" models.[2]

Each model involves a certain economic logic, a set of practices, and policy implications.

- In the "gift" model, online users get to access content and use services that do not require compensation because the producers of the content and services do not intend to generate any business transaction.[3]
- In the "pay" model, producers require financial compensation from users in exchange for content and services. This model is often linked to issues of copyright and is particularly relevant in the cultural industries—music and book publishing, and film—which have traditionally relied on a pay model and have tried to replicate that model in the online environment.
- In the "advertising" model, paid commercial messages are associated to content and services, and users can enjoy these without any immediate or mandatory requirement to compensate the producers. However, this model assumes that users will end up paying, in the process of buying the advertised products, for what they initially receive for free.

2 Every classification involves a simplification. In this sense, what Chris Anderson describes in his book *Free: The Future of a Radical Price* (Hyperion, 2009) can be considered as a different, hybrid model that at first resembles the gift model—something is given away without any specific request for compensation—but, in the end, relies on some kind of deferred compensation from users, like the advertising model. See also Lawrence Lessig's *Remix Culture* (Penguin, 2008) for a discussion of online hybrid economies.

3 For a detailed description of peer production and its policy implications, see Yochai Benkler's *The Wealth of Networks: How Social Production Transforms Markets and Freedoms* (Yale University Press, 2006).

While it would be difficult to estimate the relative weight of each model, it is safe to say that advertising plays a fundamental role.[4] According to the U.S. chapter of the Interactive Advertising Bureau (IAB), the internet's ability to attract advertising revenue since the mid 1990s has surpassed that of previous media at similar periods of their development.[5] In fact, most of the main online destinations—search engines, social networks, etc.—rely on advertising as their main, and often only, source of revenue.

4 For an examination of the actual size of the advertising-supported internet, see the Interactive Advertising Bureau's (IAB) report *Economic Value of the Advertising-Supported Internet Ecosystem* (2009), available at http://www.iab.net/media/file/Economic-Value-Report.pdf (accessed 7 February 2011). It should be noted that this report uses a rather loose definition of advertising-supported content and services. (The IAB is a leading industry organization in the field of online advertising and produces regular reports on revenues and other relevant data.)

5 See the IAB's 2009 Internet Advertising Revenue Report, http://www.iab.net/media/file/IAB-Ad-Revenue-Full-Year-2009.pdf (accessed 7 February 2011).

III. The Origins and Evolution of Online Advertising

Cyberspace started to take its current form in the mid 1990s, due to the popularization and commercialization of the internet.[6] Before the early 1990s, the internet was for the most part a closed network with access restrictions, and commercial uses were forbidden by the Acceptable Use Policy of the U.S. National Science Foundation. In the middle of the decade, the internet was opened to commercial operations through a process of privatization that affected all levels of the net—from infrastructure to content—and advertising soon became a significant source of revenue.

The advertising industry made a concerted effort to rationalize online advertising and permeate the internet.[7] This effort included the creation of a series of ad-hoc organizations—such as the Coalition for Advertising-Supported Information and Entertainment (CASIE), the Future of Advertising Stakeholders (FAST), and the Interactive Advertising Bureau (IAB)—aimed at promoting a regulatory framework beneficial to the advertising industry, favoring a view of advertising as an essential element of online communication and businesses, and creating the necessary tools for online advertising to thrive.

These tools included:

- the development of an *online audience ratings system*, to guarantee advertisers that they were getting what they were paying for, and to allow targeted ads based on socio-demographic characteristics.
- the *standardization of different forms* of online adverts, to facilitate their creation and insertion.

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6 Most accounts of the internet assume—probably rightly—that the United States constitutes the epicenter, and thus tell its story from the point of view of its evolution from the ARPANET, the network sponsored by the U.S. Department of Defense in the late 1960s, to the current global network of networks. The focus on the United States and, to a smaller extent, other Western countries, is equally pronounced when discussing online advertising. Though this bias could be justified—by the size of the industry, leadership in innovation, impact on global users, availability of data and information, etc.—it should nonetheless be acknowledged.

7 The speech of Edwin Artzt, then CEO of the world's largest advertiser—Procter & Gamble—at the 1994 convention of the American Association of Advertising Agencies (AAAA) was indicative. He concluded with a call to arms: "Let's grab all this new technology in our teeth once again and turn it into a bonanza for advertising." See Artzt, E. (1994) "P&G's Artzt: TV Advertising in Danger; Remedy is to Embrace Technology and Return to Program Ownership," *Advertising Age*, 23 May, p. 24.

- the establishment of a *common vocabulary* for the industry, to facilitate coordination and understanding among the different actors.
- the proposal of a set of *best practices and standard procedures* for managing and evaluating online campaigns, to offer credibility and accountability in the advertising trade.

In spite of the difficulty of adapting to the online environment, with all its complexities and uncertainties, the online advertising industry is thriving. Fifteen years after the first encounter of advertising and the internet, online technology has become a fertile ground for advertising: it is estimated that global online advertising revenues will pass the US$70 billion mark in 2011.[8]

Online advertising has evolved rapidly and has generated different modes and targeting models. These could be classified as follows:

Traditional exposure model: The first form of online advertising was based on sponsorship: advertisers paid a certain—rather arbitrary—amount of money for having their banners or other ads on a particular page or site for a specified period. But online advertising could not be viable without feedback mechanisms to provide advertisers with information on who was being exposed to their ads.

This is why, starting in 1995, a series of companies and organizations began to provide online audience measurement services. These services had the same goal as their offline equivalents: to assess the size and profile of the audience of particular websites. They often used the same methodologies, with minor adaptations: surveys and audimeter-based panels.[9] The main novelty was the possibility of analyzing the records of user activity in the form of log-files and the use of tags (also known as web bugs, web beacons or clear GIFs) to facilitate this analysis.

However, all these methods for audience measurement turned out to present obvious limitations when used to replicate the advertising exposure model used with offline media, whose main goal is to measure audience size and profile in order to determine the price of advertising and facilitate the targeting of ads according to the socio-demographic characteristics of the audience.[10]

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8 See MagnaGlobal *2011 Advertising Forecast*, available at http://www.magnaglobal.com/wp-content/uploads/downloads/2010/12/2011-MAGNAGLOBAL-Advertising-Forecast-Abbreviated.pdf (accessed 7 February 2011). The success of online advertising does not mean that the same stakeholders that benefited from offline advertising continue to do so from online advertising. Mass media organizations often complain that their offline dollars turn into online cents. This is so because of the aforementioned inventory inflation, which has meant a deflation of the price of advertising, but also because the role of content providers has radically changed online. Now they are but one more intermediary in a much more complex process of audience production and advertising management.

9 Audimeter-based panels follow the model of television audience measurement: metering software is installed in the computers used by a sample of the population.

10 For a detailed examination of the logic, methods, and industry dynamics of this attempt at reproducing online the offline ratings system, see Fernando Bermejo, *The Internet Audience: Constitution & Measurement* (Peter Lang, 2007).

Language-related model: These limitations opened the door to new forms of advertising based on language-related targeting. The first attempt at developing this form of targeting online led to contextual advertising, which matches the ads to the content being consumed. While this has been common practice in offline media, the automation and flexibility of this process when carried out online allows advertising to be adjusted to ever more concrete forms of online communication—not simply a magazine feature, but any text available online. As a result, the ads that users saw depended on the very specific content they read.

At this point, around 1998, a line was crossed when the ads that users saw began to be determined not by the language they read, but by the language they wrote. In other words, the interactive possibilities of the internet began to be used to manage the advertising process. In particular, search engines started using the keywords typed in searches as a window into users' interests, desires, and needs. The paramount example of this new kind of advertising, which now drives a significant portion of online advertising expenditures, is Google's Adwords program. In this program, ads are selected in response to a specific search by a specific user according to a complex mechanism based on a global auction of keywords,[11] a cost-per-click pricing scheme, and an assessment of the quality of the ads and of the page to which they lead.

Behavioral model: Despite the extraordinary success of language-related targeting, it could not take account—or advantage—of two additional issues. First, the internet is not simply a textual medium. Even though written language plays a very significant role in online communication, the internet is increasingly a multimedia environment in which audio, video, and animation play an ever more significant role. As such, the advertising models based on language targeting cannot be easily applied to other forms of online content; as evidence, consider Google's difficulties in developing an effective advertising system for YouTube.[12]

Second, the interactivity provided by the internet is not just a matter of choosing what to read, write or search for. Online activity has many facets. And if we add to this the facts that activity can be recorded and online ads can be provided ad-hoc for every request, it is easy to understand the recent surge of online behavioral advertising. Behavioral advertising is based on the analysis of the recorded activity of online users. Tracking users and their activity, and collecting and analyzing data, can take many different forms. The most standard one is used by advertising networks which monitor and record user activity through cookies and tags in order to generate browsing profiles, that is, a record of information on the activities of web browsers on different websites across time.

If behavioral advertising is at the center of most debates on online advertising, two other developments are becoming prominent. One has to do with *location*. Since the internet is increasingly mobile, a key information item about online requests is the location from which the request was placed. This may turn out to be decisive for fueling the increase in local advertising online, especially in the context of mobile devices.

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11 Advertisers bid to have their ads shown next to the search results for specific keywords. This bid, expressed in terms of price-per-click, multiplied by the estimated chance the ad provided by the advertiser has of generating a click, largely determines the ranking of the ads.

12 It is much harder to automate the process of discerning which is the right ad to show next to a user-generated video than to do this for a search results page. Reducing the content of a video to something meaningful and useful for ad targeting purposes turns out to be rather difficult.

In fact, two major players in the mobile internet market—Google and Apple—have recently bought companies that specialize in controlling and managing mobile advertising: AdMob and Quattro Wireless, respectively. Likewise, online social networks are increasingly interested in exploiting user-location-related information; consider, for instance, Facebook's recent introduction of a location-sharing program, through which users can communicate their current location to other users—and by extension, to Facebook.

The second issue that is becoming a hot topic is *real-time targeting*: the ability of advertisers to 'purchase' individual users as targets for their ads at the moment when these users place an online request.[13]

However, the novel and constantly evolving field of online advertising not only requires the adaptation of targeting and business strategies to new communicative realities. It also involves some novel policy issues that seem to require new rules and regulations.

13 See the complaint filed at the FTC by privacy watchdogs, http://www.uspirg.org/uploads/eb/6c/eb6c038a1fb114be75ecabab05b4b90b/FTCfiling_Apr7_10.pdf (accessed 7 February 2011).

IV. Policy Issues

Online advertising raises a series of policy issues. Some of these are common to any kind of advertising, while others are much more specific to the online environment.

Among the former are those that concern the nature of the product being advertised, the characteristics of the ad itself, and the type of audience receiving it. Some categories of products and services are considered harmful in certain countries, and their ads are subject to stricter limitations and even prohibition: tobacco, alcohol, guns, prostitution, etc. There is also a concern with deceptive advertising, which misleads audiences. And there is, finally, an interest in protecting vulnerable populations, mainly children, from certain—or all—kinds of ads.

In respect of these issues, the main difference introduced by online advertising has to do with enforcement. Exerting any kind of control over the types of products advertised, the types of persuasive strategies used, and the types of audiences targeted is more difficult online. When enforcement exists at all, it is more likely to be provided by private companies—such as search engines or social networks—than by governments or other public authorities.

Other features of online advertising become more of an issue due to the new technological possibilities. In particular, there has been some focus on the use of competitors' names and trademarks in website tags and search advertising. But this has more to do with trademark law than with advertising policy.

However, the policy issue of primary importance in online advertising has to do with data collection and privacy. While the collection of information on audiences has always been part of the advertising process, the information needed to fuel the targeting mechanisms currently used in online advertising make privacy a central concern for regulation.

V. Implications for Privacy

The evolution of online advertising suggests a trend towards more intrusive, comprehensive, and individual forms of collecting data on users. This can be largely explained through the three key features mentioned above: online activities leave a trace, the range of activities allowed by the internet is unprecedented, and advertising can be managed per-request.

As a result, advertising's move from the mass media to the online environment has meant a shift from the need to devise specific data collection procedures to obtain data on media exposure from a representative sample of a wider population, to the need to simply collect and analyze the trace left by individual users through a wide range of online activities. And this shift means that the issue of privacy becomes central in any debate on the shape and policy implications of online advertising.

While the benefits generated by online advertising are obvious and tangible—on the demand side, access for free to an enormous range of content and services; on the supply side, a steady source of revenue for the most diverse businesses—these benefits are being provided at the cost of users' privacy. If these benefits and cost are to be balanced, a series of issues has to be given careful consideration. In particular, the collection of data on individual users' activities has policy implications that need to be addressed:

- **Who collects** the information, and **where** it is collected. As the collection of information on user activities plays an important role in website management, it is difficult to argue against certain forms of data collection carried out by 'first parties', meaning those websites to which a client places a request.

  However, the need to create user profiles in order to improve advertising targeting has led to an increase in data collection by 'third parties', meaning advertising networks and other intermediaries, such as web analytics and behavioral tracking companies. As a result, most user activities are being recorded by a large number of private organizations with which users have no apparent relationship and of whose existence they are not aware. Several studies have shown that many different third parties are collecting information at most commercial websites, and some of these are so extensive that they can collect information on most of the online activities of most users.[14]

14 See the study "What They Know", sponsored by the *Wall Street Journal* and covering data collection in the most visited websites, available at http://blogs.wsj.com/wtk/. See also Catherine Dwyer's (2009) study of a specific site: "Behavioral Targeting: A Case Study of Consumer Tracking on Levis.com", available at http://www.ftc.gov/os/comments/privacyroundtable/544506-00046.pdf (accessed 7 February 2011).

The final goal of these data collection practices is to obtain a comprehensive picture of individual users' online activities. While this might be difficult to obtain by collecting data at specific websites—notwithstanding some networks' determined endeavors—it turns out to be an achievable goal when data collection is conducted at a different location in the network: the internet service provider, or ISP. Since the ISP is the gateway to the wider internet for most users, collecting data at the ISP level means that every online activity is subject to scrutiny.[15]

- **From whom** data is collected. As data collection affects, in principle, every online user, certain restrictions are called for. For example, there is wide consensus that the collection of data on children's online activities should be more tightly restricted. While these concerns have shaped some legislation—such as the U.S. Children's Online Privacy Protection Act—and some self-regulatory codes of marketing practices, the implementation of such restrictions is far from comprehensive.[16]
- If there are two key issues in policy debates regarding the collection of data on online users for marketing purposes, they are **awareness** and **choice**. The question is whether users know that information about them is being collected and, if so, whether they can easily decide not to allow it. In this regard, the existence, prominence, and language of privacy policy notices have been subject to continued examination and debate. In the end, it is difficult to specify what an appropriate privacy policy notice is. The ultimate proof of appropriateness is whether users actually know about, read, and understand these policies. The other side of this issue is whether data collection should be carried out by default, with users offered the chance to opt out by explicit communication, or whether the default should work the other way, with users given the opportunity to opt in. The implementation of opt-in and opt-out systems remains a contentious issue in which businesses' and users' interests appear to collide.
- The question of **what** type of information is collected has also become central. In principle, there are two types of information whose collection is subject to stricter limitations. One type is sensitive: health, religion, etc. The other is personally identifiable (PII). However, the distinctions between sensitive and non-sensitive information, or PII and non-PII, are far from clear.[17] And with the possibility of combining data sources and files with different types of information on the same individuals, these distinctions are becoming even murkier. While it is true that in most forms of ad targeting it is not necessary to know who the users are—only what they read, write or do online—the distinction between users' virtual selves and their 'real' selves seems to be a weak criterion for determining the acceptability of certain advertising practices.

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15 The operations of companies such as NebuAd in the United States and Phorm in the UK, which reached agreements with ISPs in order to obtain large amounts of data on the activities of ISP clients, rang alarm bells with privacy watchdogs and regulators. While the activities of NebuAd in the United States were disrupted early on by public outrage and regulators' inquiries, the operations of Phorm in the UK continued for some time and have triggered a suit by the European Union against the UK government. See http://www.ispreview.co.uk/story/2010/09/30/european-commission-takes-uk-to-court-over-phorm-and-isp-internet-privacy.html (accessed 7 February 2011).

16 For an overview of the issue of children and online marketing see Anna Fielder et al., "Fair Game?: Assessing commercial activity on children's favourite websites and online environments", available at http://www.childnet-int.org/downloads/fair-game-final.pdf (accessed 7 February 2011). See also the piece on kids' privacy in the *Wall Street Journal* study on online commercial data collection, available at http://online.wsj.com/article/SB10001424052748703904304575497903523187146.html?mod=what_they_know (accessed 7 February 2011).

17 The case of AOL's release of search data marked a turning point in debates regarding personal identification and anonymization. See http://select.nytimes.com/gst/abstract.html?res=F10612FC345B0C7A8CDDA10894DE404482 (accessed 7 February 2011). For an overview of the limits of anonymization, see Paul Ohm, *Broken Promises of Privacy: Responding to the surprising failure of anonymization*, University of Colorado Law Legal Studies Research Paper No. 09-12 (2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1450006 (accessed 7 February 2011).

- **How** exactly is the information collected? While the collection of data on online users can be achieved through direct and explicit inquiry—forms, questionnaires, etc.—most is carried out through technological devices that collect information passively and automatically. The best known and most widely used of these devices is the *cookie*. Its use has become standard practice, and its technical and usage implications have been much scrutinized. But there are other devices which are less known and widely used: *tags* and *flash cookies*.[18]

- A shared concern of most stakeholders involved in the collection of data on internet users for marketing purposes is the **security of data**. There is a general concern regarding the possibility of data breaches that may cause the data collected to fall into the 'wrong' hands. In spite of this concern, it seems difficult to set any kind of standard data security procedure that could be required of data collectors.

- **How long** is data being **stored**? The issue of data retention, especially the length of that retention, has also become contentious. No principle or period is accepted by all players, beyond the general consideration that data should only be retained for as long as it is needed to fulfil legitimate business needs. And even when, after a certain period of time, the data is not retained in the form in which it was originally collected and is anonymized as a result, there is little understanding of how this process is carried out.

- Another critical issue is **what happens** with the data **after** it has been collected and stored. The different advertising models described above respond to different logics and procedures. However, they do not necessarily have to work independently. In fact, the online advertising industry has recently undergone consolidation in which most relevant companies in the online advertising space have been bought by internet powerhouses (Google, AOL, Microsoft, Yahoo!, etc). The rationale behind this consolidation was an attempt to gain ground on all types of advertising (traditional display/exposure model, language-related targeting, and behavioral advertising). As a result, some companies are now able to manage different types of advertising and obtain information on many different user activities from many different sources.[19]

  This process of combining different types of advertising targeting is greatly facilitated by the ease with which data files can be combined in the digital world. The dangers of merging different sources of data came to public attention back in 1999, when DoubleClick tried to combine its data on online activity with Abacus's database.[20] Considering the consolidation in the online advertising industry, it seems only natural that data merging would become more common and extensive. However, little knowledge is available to the general public on who carries out these data-merging activities and how they are done. A related issue appears when a company that collects data about users is bought out by another company and the data becomes an asset that switches hands; questions of awareness and consent then become very relevant again.

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18 In this regard, see Soltani et al. (2009) "Flash Cookies and Privacy", the first study to call public attention to the use of flash cookies, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1446862 (accessed 7 February 2011). See also the subsequent report by the Wall Street Journal, "What They Know", available at http://blogs.wsj.com/wtk/ (accessed 7 February 2011).

19 For an excellent review of this situation see Krishnamurthy, B. & Wills, C.E. (2009) "Privacy Diffusion on the Web: A Longitudinal Perspective", available at http://www2009.org/proceedings/pdf/p541.pdf (accessed 7 February 2011).

20 The merger of DoubleClick, an online advertising network serving ads for over 11,000 sites, with Abacus Direct, a research company with records of billions of consumer transactions, created the possibility of combining online and offline information on internet users. The data merge was cancelled due to public pressure.

VI. Conclusions

The goal of any regulation of online advertising should be to protect the fundamental rights of internet users without stifling innovation and prosperity.

Those opposing any kind of regulatory intervention claim it would have damaging effects on the online advertising industry and the internet as a whole. While some research does suggest that regulation can decrease the effectiveness of advertising,[21] other research shows that users are not willing to trade privacy for ads.[22] Also, there is evidence that while advertising has played and is likely to continue playing a very relevant role in the online provision of content and innovative services, the media industry throve throughout the twentieth century without the intensive collection of individuals' information. Furthermore, the internet of the first decade of online advertising—1995–2005—was a thriving and innovative environment, without the benefit of the most privacy-threatening versions of online advertising.

In this regard, the approaches followed in the European Union and the United States offer a clear contrast.[23] Data protection and the protection of privacy are recognized as fundamental rights of citizens in the EU. As a result, European regulations have been much more active in this area than their American counterparts.

The first major European initiative was the Data Protection Directive of 1995 (95/46/EC), which took as its seven guiding principles the ideas of notice, purpose, consent, security, disclosure, access, and accountability. In other words, citizens should know when their data is being collected, data should only be used for the purpose stated, no disclosure of the data can take place without the subject's consent, data should be stored securely, subjects should know who is collecting their data, they should have access to the data and be able to

21 See Goldfarb & Tucker's (2010) study "Privacy Regulation and Online Advertising", available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1600259 (accessed 7 February 2011).

22 See Turow et al. (2009) study "Americans Reject Targeted Advertising and Three Activities that Enable it", available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1478214 (accessed 7 February 2011).

23 The Safe Harbor Agreement signed by the EU and the United States in 2000 was an attempt at bridging these different approaches to privacy in order to allow the transatlantic flow of data. For a comparison of European and U.S. privacy policies, see Movius, L.B. and N. Krup (2009) "U.S. and EU Privacy Policy: Comparison of Regulatory Approaches," *International Journal of Communication*, 2, pp. 169–187.

correct it, and they should have a way of making data collectors accountable for following these principles. Directive 97/66/EC on the processing of personal data and the protection of privacy adapted these principles to the telecommunications sector.

However, the growing relevance of the internet led to a new directive from Brussels on e-privacy (2002/58/EC), which stresses the need to follow the principles stated in directive 95/46/EC when using cookie-like devices to collect information on users, sets limits on data retention and on the use of location-related data, and prohibits the use of spam and unsolicited email marketing. This directive was revised in November 2009 with the amendment directive 2009/138/EC, making a strong case for the need to follow the principles established in the 1995 Data Protection Directive, and specifying the need to obtain users' previous consent to process data traffic, place cookies, or send commercial email.

In the United States, the debate around the regulation of online advertising and of its privacy implications has leaned towards lighter regulation and in favor of self-regulation, while showing a constant tension among four main players:

- consumer and privacy watchdog organizations, which mostly support clear and stricter regulation.
- the Federal Trade Commission, which has kept a close eye on every new development in this field,[24] but has so far refused to regulate, and instead proposed a series of self-regulatory principles for the industry.[25]
- the advertising industry, which rejects regulation and has released, through the Network Advertising Initiative (NAI), a Self-regulatory Code of Conduct for Online Behavioral Advertising,[26] while initiating additional actions to inform users about data collection and advertising.[27]
- Congress, which has recently released proposals for a possible privacy regulation.[28]

The shape that online advertising takes in the near future will largely depend on the outcome of the struggle between proponents of government regulation on one hand, and of self-regulation on the other. Regulatory caution is advisable in a complex and constantly evolving area. However, the evolution of online advertising management—with increased data collection by a smaller number of collectors on a wider set of activities by individual users—and the track record of part of the industry—attempts at collecting data at the ISP level, surreptitious use of flash cookies, intense data collection from children, etc.—show that self-regulation has obvious shortcomings when it comes to guaranteeing online users' privacy.

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24 For a summary, see http://en.wikipedia.org/wiki/FTC_Regulation_of_Behavioral_Advertising (accessed 7 February 2011).

25 See http://www.ftc.gov/os/2009/02/P085400behavadreport.pdf (accessed 7 February 2011).

26 See http://www.networkadvertising.org/networks/NAI_Principles_2008_Draft_for_Public.pdf (accessed 7 February 2011).

27 See http://www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/pr-041410 (accessed 7 February 2011).

28 See the Boucher-Stearns discussion draft (http://www.nciss.org/legislation/BoucherStearnsprivacydiscussiondraft.pdf), the Kerry-McCain Consumer Privacy Bill of Rights Act of 2011 (http://kerry.senate.gov/imo/media/doc/Commercial%20Privacy%20Bill%20of%20Rights%20Text.pdf), and the Stearns-Matheson Consumer Privacy Protection Act of 2011 (http://stearns.house.gov/UploadedFiles/Privacy_Bill.pdf) (accessed 7 June 2011).

Glossary

Advertising inventory: The total number of times any member of the audience is exposed to an ad.

Classified ads: Small, usually text-only, advertisements for goods, services or employment, placed by individuals or businesses, traditionally in newspapers and magazines.

Cookies: Small text files sent by websites and stored in a browser in order to track subsequent activity by the same browser. First-party cookies are those provided by the website being visited. Third-party cookies are those provided through the website being visited by companies—advertising networks, analytic tools, etc.—other than the one managing the site.

Flash Cookies: Collection of data stored in users' computers by Adobe's products and that can be used to keep track of a user's preferences and activities.

Tags: Invisible identifier markers introduced in web pages in order to track how many times these pages are seen and to collect information on the computers and browsers from which they are seen.

Further Reading

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The Media Program works globally to support independent and professional media as crucial players for informing citizens and allowing for their democratic participation in debate. The program provides operational and developmental support to independent media outlets and networks around the world, proposes engaging media policies, and engages in efforts towards improving media laws and creating an enabling legal environment for good, brave and enterprising journalism to flourish. In order to promote transparency and accountability, and tackle issues of organized crime and corruption the Program also fosters quality investigative journalism.

Open Society Information Program

The Open Society Information Program works to increase public access to knowledge, facilitate civil society communication, and protect civil liberties and the freedom to communicate in the digital environment. The Program pays particular attention to the information needs of disadvantaged groups and people in less developed parts of the world. The Program also uses new tools and techniques to empower civil society groups in their various international, national, and local efforts to promote open society.

Open Society Foundations

The Open Society Foundations work to build vibrant and tolerant democracies whose governments are accountable to their citizens. Working with local communities in more than 70 countries, the Open Society Foundations support justice and human rights, freedom of expression, and access to public health and education.

For more information:

Open Society Media Program
Open Society Foundation

4th Floor Cambridge House, 100 Cambridge Grove
London, W6 0LE, United Kingdom

mappingdigitalmedia@osf-eu.org
www.mappingdigitalmedia.org
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