

Online Advertising History

Flash by name, Cookies by nature

Dean Donaldson [4177299]

1/21/2008

Phase 1: Retrospection

Unit 1: Research, Theory & Creative Change (CMP A1)

Tutor: Mike Molesworth, CEMP Learning & Teaching Fellow, Bournemouth Media School

www.deandonaldson.com

A critical exploration into the history and evidence for the development of online advertising and the rise of commercial justification of the access to and distribution of content, as well as the considerations of effects on advertising and business in general including the raising of ethical concerns.

Table of Contents

Introduction	3
Historical backdrop to the commercial models of the Internet	4
Information Services	4
CompuServe	4
America Online (AOL).....	4
Prodigy	5
The World Wide Web (WWW).....	7
The origins of e-Commerce and the rush to invest	8
NCSA Mosaic	8
Netscape Navigator.....	9
Cookies.....	9
The Banner	10
Recipe for disaster	12
Get Big Fast	13
A new breed of Commercialisation.....	15
DoubleClick	15
IAB Formats.....	17
Search Advertising	18
Pay-Per-Click (PPC).....	19
Overture.....	20
Google	20
Amazon	22
Rich Media Advertising	23
Java.....	24
Flash	24
DHTML	25
EyeBlaster	25
Beyond the banner	26
Acquisitions.....	30
Ethical considerations	31
Summary	33
Bibliography	37

Introduction

The creation of content has always needed to be balanced with the offset of any production and distribution costs. A consumer of content seeks to be entertained and informed as well as advised as to what is current and relevant in their surroundings. Someone has to pay for that content creation, and as a vehicle for delivery, brands see the intrinsic value of reaching out, stimulating, engaging with and alerting consumers as to their own cause and purposes.

Entertainment wrapped up with a commercial push of a product or service to a targeted end user can therefore be a natural fit if presented timely and appropriately – hence this natural symbioses that exists – but finding a harmonic balance is something that continues to be the challenge.

The advent of the internet has challenged the nature of communication between a brand and the consumer. This has not been isolated to what could be seen as a classic referral of internet advertising¹ per se, but has permeated the very fabric of relationship and ensuing dialogue across all forms of media and thus challenging established business marketing at its very core, including the borders of ethics and legality.²

Data equals power, and in the case of the internet, that would mean hard cash to its investors and increased ROI to its proponents. Distribution and access of content as a business model ultimately gives way to the value of the content itself and thereby seeks to remove any obstacles for the delivery of said content to the masses.³

Though there have been many significant moments to date, it was in ‘giving the web a memory’⁴ and the intrinsic wealth of data and intelligence about how to cultivate this client-consumer relationship that has really marked a turning point beyond par in any medium before. But at what price? From an advertising perspective, each technological advancement has brought with it a public outcry that has identified social and moral ethical concerns that has grown from the streets and reached the ears of industry officials and politicians alike.⁵

¹ By ‘classic’ I refer to browser-based advertising as opposed to the wider digital advertising across media devices.

² Information gleaned from *Ethics in advertising and promotion: Delivery channels*. Wikipedia. Available at: http://en.wikipedia.org/wiki/Marketing_ethics#Delivery_channels

³ One such example is AOL acquiring Time Warner, the world’s largest media company, in January 10th 2000, or another would be British Telecom launching BT Vision in December 4th 2006 and then offering free Wi-Fi access to the UK as reported in October 4th 2007.

⁴ This phrase refers to the origins of web ‘cookies’ and is attributed to Schwartz, J. *Giving the Web a Memory Costs Its Users Privacy*. New York Times. 4 September 2001. Available at: <http://query.nytimes.com/gst/fullpage.html?res=9B0DE1D61639F937A3575AC0A9679C8B63>

⁵ In June 1997 Federal Trade Commission (FTC) held a Public Workshop On Consumer Information Privacy and Peter Harter the Global Policy Counsel for Netscape was questioned concerning third party cookies. Available at <http://www.ftc.gov/bcp/privacy/wkshp97/comments2/netscape.htm>

It is this aspect of our new world order of follow-me-advertising that I will set out to explore and seek to address the statement ‘just because we can, does it mean we should?’ and identify the key moments in relation to internet advertising to date.

Historical backdrop to the commercial models of the Internet

Information Services

In the early day it was CompuServe and later AOL who brought a commercial face to networked archives of information accessed by a computer terminal. Their business model was for the user to pay for time-based access to the content they maintained and the communication and network services they offered via a dial-up number. This became the role of the Internet Service Providers (ISPs) who would become the conduit for access. One early challenge to this model was Prodigy.

CompuServe

CompuServe was the first major commercial online service in the United States. It was originally founded in 1969 in Columbus, Ohio when Harry Gard, the founder of Golden United Life Insurance Co. approached son-in-law Jeffrey Wilkins along with a fellow graduate student in electrical engineering, Dr. John R. Goltz to provide Golden United with in-house computer processing support. Wilkins and Golts together went on to develop a complementary independent computer time-sharing business, renting time on its mainframe computers during business hours. They offered a local phone number in Cleveland which connected to a timesharing host system via a leased line to Columbus. After CompuServe was spun off as a separate company in 1975, it gradually introduced its own direct dial up access network in many countries and by the mid-1980s was the largest consumer information and networking service in the world.⁶

CompuServe was incredibly popular during the early part of the 1990s, helped in part by the hourly rate falling from over \$10 to \$1.95 an hour. It had hundreds of thousands of users visiting its thousands of moderated discussion Forums and by 1995, CompuServe topped three million members and held the dominant position until the information retrieval system America Online (AOL) changed the pricing model from hourly rates to monthly subscriptions.⁷

America Online (AOL)

In the early 1980's, William von Meister set up Control Video Corporation (CVC) and developed an online service called Gameline for the Atari 2600 video game console. By paying an hourly charge, it

See Transcript from FTC Privacy Workshop '97 Hearings Transcripts for Session 2, Panel 2, Part 3, pg 144 available at <http://www.ftc.gov/bcp/privacy/wkshp97/volume2.pdf>

⁶ Information gleaned from *CompuServe: History*. Wikipedia. Available at:

<http://en.wikipedia.org/wiki/CompuServe#History>

⁷ Wikipedia, *supra* note 33

allowed subscribers to temporarily download games and keep track of high scores – after they had first bought a modem from the company and paid a one-off setup fee. CVC nearly went bankrupt in 1983 and the investor Frank Caufield, turned to friend Jim Kimsey and Steve Case to assist. By 1985, von Meister was quietly dropped and Kimsey became the Chief Executive Officer (CEO) of the newly renamed Quantum Computer Services in Vienna, Virginia USA as they launched ‘Q-Link’ a huge Bulletin Board Service (BBS) for Commodore 64 and 128 computers.⁸ After a brief flirt with Apple in 1988 developing AppleLink, Quantum decided to go it alone and they changed the service's name to America Online (AOL) in October 1989.⁹

Using a proprietary Graphical User Interface (GUI), Case positioned AOL as the consumer online service for people unfamiliar with computers, in contrast to the tech savvy CompuServe, and introduced a range of new services, such as private chat rooms to complement its online gaming. It grew steadily and in a competitive move against CompuServe and in conjunction with an aggressive marketing campaign, AOL introduced an unlimited-time, advertisement-supported price plan in 1996 in the U.S., moving from an hourly rate to a monthly flat-rate of \$19.99. Within three years, AOL's user base grew to 10 million people. This caused a significant loss of customers for CompuServe until they responded with a similar plan of its own at \$24.95 per month in late 1997. By February 1998, AOL had taken ownership of CompuServe.¹⁰

AOL was the first online service to seamlessly integrate a web browser and content and as such became a firm favourite of the dot.com investors. A radical change in commercial focus would be actualised in the minds of the investors when the shift from those who saw the merits of mere technology like dial-up access, although tempered by the ensuing nervousness around the potential harm of the Y2K millennium bug, to having full faith in content provision would be made more prominent, when in January 2000 it acquired Time Warner, the world's largest media company.

Prodigy

Prodigy in an interesting aside as is in many ways a pre-cursor to a web portal. Its vision was to break from the norm and redefine ‘information service’ by becoming a home-shopping network. In 1980, broadcaster CBS and telecommunications firm AT&T originally gauged consumer interest in a Videotex-based TV set top device that would allow consumers to shop at home and receive news, sports and weather. It became a reality in February 1984, as Trintex was founded as a joint venture between CBS (who subsequently left), computer manufacturer IBM, and retailer Sears, Roebuck and Company. They launched ‘Prodigy’ regionally in 1988 and then nationwide in September 1990.

⁸ Information gleaned from *AOL: History*. Wikipedia. Available at: <http://en.wikipedia.org/wiki/AOL#History>

⁹ Obtained from *The Industrial Era*. The History of Computing Project. Available at: <http://www.thocp.net/timeline/1989.htm>

¹⁰ Wikipedia, *supra* note 8

They managed to attract more than a million subscribers by offering bundled IBM computers with Hayes Modems whilst complement the effort with a heavy marketing campaign. Another major factor in the expansion of the service was providing subscribers' from most homes across the U.S. with a local rate number (usually free) to a newly constructed national network of POP (points-of-presence). Prodigy paid for the call between the POP and its national data centre in New York.¹¹

Offering unlimited access for the user, the business model was based on fixed, nominal monthly fees offset against a prediction in rapidly growing advertising and the profits in online shopping, as practically every 'page' had the equivalent of a banner ad on it which they charged between \$10,000 and \$20,000 to design.¹² Ironically, AOL was a keen advertising spender with them.¹³ In real terms Prodigy sported a very crude graphical user interface that affected both advertising and product display alike.

Following the likes of CompuServe and AOL, in 1993 it began charging hourly rates for its most popular feature, i.e. the message boards. Many users unappreciated the significance until the next month their bills shot up from around \$20 to three-digits. Unsurprisingly there was a mass exodus from the service. Prodigy responded to declining numbers by becoming one of the first dialup services to offer web access to its members alongside web page hosting. Their proprietary browser could not withstand competitive pressure and by 1999 they axed their access service.¹⁴ The management sought to buy the service for \$100 million from IBM and Sears, Roebuck & Company who had invested over \$1 billion during the last decade, whose one million user base was a fifth of the likes of CompuServe and AOL, the latter growing at 300,000 new subscribers a month.¹⁵

Prodigy from its outset embodied a lot of pioneering thought and attitudes that are still being drawn on today. To whom does the internet development fall; those who provide access, i.e. the delivery platform of the telecommunications companies, and therefore to make money for charging for access either pay-per-use or flat-fees; or does it fall down on the side of the content providers, i.e. those with entertaining and informative content, already poised with creative inspiration, production know how and people out on the field, all ready to develop that which people are desiring and would pay a premium for. What they demonstrated it was a collaboration of both, yet interestingly, both the telecommunications and content provider pulled out fairly early on.

Delivery platforms and content can not negate the hardware providers and those of commercial bent, i.e. the product retailers. Scalable infrastructure needed to be put in place both at a national

¹¹ Information gleaned from *Prodigy (ISP)*. Wikipedia. Available at: [http://en.wikipedia.org/wiki/Prodigy_\(ISP\)](http://en.wikipedia.org/wiki/Prodigy_(ISP))

¹² Gaffin, Adam. Prodigy: Where Is It Going? 1991. Available at: <http://internet.eserver.org/Prodigy.txt>

¹³ Wikipedia, *supra* note 8

¹⁴ Wikipedia, *supra* note 11

¹⁵ Lewis, P.H. *Sears, I.B.M. Near a Deal To Sell Prodigy*. New York Times. 8 May 1996. Available at: <http://query.nytimes.com/gst/fullpage.html?res=9B00E2DD1539F93BA35756C0A960958260>

and local level, and part of that infrastructure would be within people very homes; beyond the potential and desire, they practically would need a device in which to access this all.

The launch of this technology needed to create groundswell before anyone could see the benefits thereof, from consumers and advertisers alike. The shouldering of the key companies involved and their colossal investment should not go unnoticed, as their research into this field has given much food for thought from the outset as to the practicalities of roll-out and how far the public are willing to go and adopt change – as well as to where certain responsibilities would ultimately fall. Despite the shareholders wishes, the value of any service on offer will never be shouldered by the user and more was going to be needed to be done to attract the advertisers.

“Every time you use the service to buy a holiday gift, book an airline ticket, pay a bill, trade a stock, send flowers or buy stamps, you are helping to assure the continuation of a flat, unmetered fee, because advertisers pay a fee for each purchase and inquiry,” Prodigy itself stated.¹⁶

The pressures of content retrieval covering all aspects like affordable local access, technical hardware requirements, user software knowledge, and standardisation of accessibility were all being thrashed out in the early days by all three of these key forerunners; CompuServe, AOL and Prodigy. CompuServe had lent on access, AOL had lent towards content, Prodigy had fought a great battle in the middle ground at trying to make the digital medium pay for itself without burdening users with high access costs or licensing, reminiscent of television-style models; the moment it entertained such a notion, spelt its ultimate demise. The World Wide Web had begun to gain momentum and was about to challenge all.

The World Wide Web (WWW)

The British physicist Tim Berners-Lee was working at the Conseil European pour la Recherche Nucleaire (CERN) in Geneva, Switzerland when he wrote ‘Enquire’, a personal information manager that could handle random associations by linking database files¹⁷. When he conceived of the web in 1989 he envisioned a networked environment, which used hypertext links to connect disparate information sources, primarily for the extended particle physics community.¹⁸

Berners-Lee had the fore-sight to not place restrictions or borders on his concept. He wanted this idea to be free and open access to all. He did not seek to commercialise or patent his invention,

¹⁶ Gaffin, Adam, *supra* note 12

¹⁷ Butner, R. Out of order: Hypertext's past, present and future. 2001. *Available at:* <http://www.zdnet.com/yil/content/mag/9611/hyper9611.html>

¹⁸ Berners-Lee, Tim. Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor. 1st edition. San Fransisco: Harper, 1999.

because in his view this would limit its use. He wanted to take the internet beyond the confines of scientific academia, out of the hands of the technophiles, government and advanced hobbyists.¹⁹

To achieve this, he fundamentally saw the web as needing to be a stateless place where information would not be kept on the client or user's machine.²⁰ Though as the web took on a momentum of commercial potential, what was soon to become apparent was a way of moving from one page to the other, remembering previous actions performed on the former page and sharing that information with the next. In essence, leaving a trail of 'crumbs' that could be tracked and re-read.

Berners-Lee had made preliminary provision for this movement back and forward by the inclusion of the referer information field as part of the HTTP protocol in 1992.²¹ Prior to search engines, it was to strengthen relationships across the web by providing a website with the previous URL visited by the person with an intended purpose was to allow detection of web sites that had linked to them, with the hope that they would then add links back to the referring sites.²²

Berners-Lee vision of a stateless web is 'analogous to a vending machine. It has little regard for who you are, what product you are asking for, or how many purchases you have made. It has no memory.'²³ It would take the later developers of the web browser to figure out how to develop this memory in order to bring a commercial usefulness to mere information retrieval.

The origins of e-Commerce and the rush to invest

The Cookie technology was developed by Netscape and is a defining moment for the web and is also central to the development of the browser. Similarly advertising would run parallel from its inception as a graphical viewing device and together they would fuel a flurry of investment across Silicon Valley as they demonstrated real potential beyond mere infrastructure and access alone.

NCSA Mosaic

In December 1992, a graduate programmer from Illinois called Marc Andreessen began working at the University's National Center for Supercomputing Applications (NCSA) developing Mosaic, the

¹⁹ The History of Computing Project, *supra* note 9

²⁰ Berners-Lee, Tim. HyperText Transfer Protocol Design Issues. 1991. Available at: <http://www.w3.org/Protocols/DesignIssues.html>

²¹ Berners-Lee, Tim. Basic HTTP as defined in 1992. Available at: <http://www.w3.org/Protocols/HTTP/HTTP2.html>

²² Hallam-Baker, P. History of Referer. 2003. As quoted in research article Cookies. Available at: http://www.governingwithcode.org/case_studies/pdf/Cookies.pdf

To check a website referer, you can use the Worldwide Consortium validation service: <http://validator.w3.org/check/referer>

²³ Kesan, Jay P, and Rajiv C. Shah. *SSRN-Shaping Code. Illinois Public Law Research Paper No. 02-18*. Social Science Research Network. September 2002. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=328920

first popular graphical browser to navigate the web, alongside Eric Bina. Originally launched in beta in January 1993, a full version 1.0 was released in April 1993 for Unix's X Window System and by December 1993 there were releases for both the Apple Macintosh and Microsoft Windows.²⁴

It was significant enough for Wired Magazine to herald this as the second phase of the Internet and predict the impending doom for Prodigy, AOL and CompuServe.²⁵

Netscape Navigator

Andreessen had become disgruntled and wanted to break out of the scientific community constraints and completely re-write the browser. By March the following year, he had begun talking to Jim Clark, a middle-aged tech pioneer and notably one of the founders of Silicon Graphics, Inc. (SGI), about a potential new Internet company to capitalise on the fledgling World Wide Web. On April 4, 1994, Mosaic Communications Corporation was launched.²⁶

Andreessen was so psyched, he persuaded almost all the core developers of NCSA Mosaic, including Mosaic's co-author Eric Bina to leave NCSA to come and join him at Mosaic Communications Corporation – the company which would eventually become Netscape Communications. He also persuaded a 24 year old programmer from Kansas called Lou Montulli.²⁷

Cookies

In June 1994, Montulli was developing an e-commerce application for a customer who needed a shopping cart and therefore the need to keep track of multiple items that a user requested. Expecting a user to perform the entire shopping process from start to finish on a single page was unrealistic and the existing method of storing state information in the web address or Uniform Resource Locator (URL) was not going to be sufficient. The state data needed to be stored somewhere else other than the URL.²⁸ Up until that moment every visit to a site, every access, retrieval or click was like the first – an isolated event. A series of unrelated actions with no automatic way to record that a visitor had dropped by before.²⁹

²⁴ Living Internet. Mosaic - The First Global Web Browser. *Available at:*

http://www.livinginternet.com/w/wi_mosaic.htm

Marc Andreessen's release message on 23 January 1993, which was endorsed and forwarded by Tim Berners-Lee six days later is available at:

<http://groups.google.com/group/comp.infosystems/msg/65bf3af73709c672?dmode=source>

²⁵ Wolfe, Gary. The (Second Phase of the) Revolution Has Begun. *Wired Magazine*. October 1994. *Available at:*

<http://www.wired.com/wired/archive/2.10/mosaic.html>

²⁶ Excerpts from an Oral History Interview with Marc Andreessen, Founder and Chief Operating Officer, Netscape Communications, by David K. Allison. June 1995. *Available at:*

<http://americanhistory.si.edu/collections/comphist/ma1.html>

²⁷ Lashinsky, A. *Remembering Netscape: The Birth Of The Web*. *Fortune Magazine*. 25 July 2005. *Available at*

http://money.cnn.com/magazines/fortune/fortune_archive/2005/07/25/8266639/index.htm

²⁸ Kesan & Shah, *supra* note 23

²⁹ Schwartz, *supra* note 4

Unix programmers used the term ‘magic cookies’ to refer to a small data object passed between cooperating programs. The solution Lou Montulli proposed was to move from HTML to HTTP by sending a small data packet – a ‘cookie’ – and thus allowing the hosting site's computer to store a small text file on every visitor's hard drive that could track what the visitor did at that site. This was the most innovative feature and a radical turning point for the web and earned Montulli the title of the “Father of the Web Cookie.”³⁰

According to legal scholar Lawrence Lessig, “before cookies, the Web was essentially private. After cookies, the Web becomes a space capable of extraordinary monitoring.”³¹

“It was a turning point in the history of computing,” Schwartz wrote. “Cookies fundamentally altered the nature of surfing the Web from being a relatively anonymous activity, like wandering the streets of a large city, to the kind of environment where records of one's transactions, movements and even desires could be stored, sorted, mined and sold.”³²

On 13th October of the same year, they launched their beta Mosaic Netscape 0.9, complete with cookies and the full version 1 was launched by the end of the year, as the company took on the 'Netscape' name. They had successfully ensured commerce would be forever at the heart of future web development, especially as Netscape would soon become the dominant browser achieving 80% penetration rate.³³

One of Netscape's stated goals had been to ‘level the playing field’ among operating systems by providing a consistent web browsing experience across them; to make the web browsing interface the same on any computer. Another key feature Netscape introduced at the same time was allowing text and graphics to appear as the web page downloaded instead of waiting for the complete page to download. This enabled the average dial-up user a tolerable experience of the web³⁴ and early web designers were quick to take note.

The Banner

Ken McCarthy founded E-Media in 1993, having already been advising on new media opportunities and a marketing advisor to the pioneering BBS community.³⁵ In May of 1994, he first introduced the concept of a clickable/trackable ad at a conference in San Francisco. He believed that ‘only a direct response model—in which the return on investment of individual ads was measured—would prove

³⁰ Bayers, Chip. *The Promise of One to One (A Love Story)*. Wired Magazine. May 1998. Available at http://www.wired.com/wired/archive/6.05/one_to_one.html

³¹ Schwartz, *supra* note 4

³² Schwartz, *supra* note 4

³³ Information gleaned from *Netscape Navigator*. Wikipedia. http://en.wikipedia.org/wiki/Netscape_Navigator

³⁴ Wikipedia, *supra* note 33

³⁵ Rockey, Sharon. PROfiles, Multimedia Reporter. 1995. Available at: <http://www.kenmccarthy.com/archive/articles/profiles.html>

sustainable over the long run for online advertising'.³⁶ Despite this they were valued and sold based on the number of impressions they generated (how many times the banner was displayed) and it would be the likes of Overture and Google to prove the response model to be effective a few years later.

McCarthy mentored media buyer Rick Boyce in his transition from traditional to online advertising. Boyce was recruited by HotWired, the online forerunner of Wired Magazine, to be their director of business development when they launched in the Autumn of 1994 and he would be responsible for organizing the first, widespread effort to sell banner ads and the resulting revenue explosion leading up the dot-com crash of 2000. Together they are considered key pioneers in the movement to commercialise the World Wide Web.³⁷

On the 24th October 1994, 12 days after Mosaic Netscape 0.9 was launched, Modem Media placed the first graphical advert for the continuously forward-thinking AT&T on HotWired "Advertising didn't exist on the internet, but the internet existed," commented GM O'Connell, founder and chairman of Modem Media. "We had been working with two clients, AT&T and Coors Brewing Company, on other interactive platforms and started looking into how they could advertise online."

³⁸

Although arguably not the first advert online as Prodigy were already running adverts in the U.S. prior to 1993,³⁹ what is now deemed as a defining moment in Web history and a prophetic statement for the future of advertising, the advert measured 468 x 60 pixels and read "Have you ever clicked your mouse right here? You will." And the users did. It achieved a staggering 42% click through rate. HotWired coined the term "banner ad" and was the first company to provide click through rate reports to its customers.

David Burrows, former Head of Ad Technology, Yahoo! Europe agrees, "*someone made money out of the internet that was not an ISP,*" but was quick to qualify, "*though there is a key difference between when technology was invented and when it became a business model, i.e. a tipping point.*"⁴⁰

³⁶ Information gleaned from *Web Banner*. Wikipedia via CPA Networks. <http://www.cpanetwork.us/banner-advertisements>

³⁷ On 4 November 1994, the first conference on the commercialisation of the Internet was held, where Ken McCarthy invited Marc Andreessen and Rick Boyce. The archive footage can be seen on: <http://www.kenmccarthy.com/archive/ig1.html>

³⁸ Goddard, Charlotte. *Click here - 10 years of online advertising*. Revloution UK: Brand Republic. 1 December 2003. <http://www.brandrepublic.com/News/197212/10-YEARS-ADVERTISING-INNOVATION-Click---10-years-online-advertising/>

³⁹ "Brand advertising on Prodigy was often seen as experimental by marketers and might be funded by research and development budgets, as opposed to media budgets" as quoted from *Prodigy (ISP)*. Wikipedia. Available at: [http://en.wikipedia.org/wiki/Prodigy_\(ISP\)#Development](http://en.wikipedia.org/wiki/Prodigy_(ISP)#Development)

⁴⁰ Interview of David Burrows, Former Head of Ad Technology, Yahoo! Europe by Dean Donaldson. 18 December 2007.

HotWired may not have been the first to run the advert and technically Dale Dougherty, founder of O'Reilly's Global Network Navigator (GNN), since closed but was one of the first ever web sites and also the first commercially supported web publication, started accepting image-based paid advertising at the same time; one banner ad on the home page. *"The one that got all the news coverage was HotWired, but the GNN banners actually ran two to three weeks before HotWired,"* O'Connell said.⁴¹ In fact it may have been earlier than that, as law firm Heller, Ehrman, White and McAuliffe apparently had a clickable advert on GNN in 1993.

Both adverts are prior to the first beta launch of Netscape and therefore limited to Mosaic access. The original AT&T advert was created by Tangent Design with principal creators Joe McCambley, Craig Kanarick and Otto Timmons. Timmons wrote on Adland, *"although we had the most popular ad on Hotwired there were at least five or six other banner ads that launched at the same time and they too should get credit for being 'first'. I can remember Club Med, AT&T and ZIMA..."*⁴²

Recipe for disaster

Although Netscape incorporated cookies into its initial web browser in 1994, the industry was already raising questions regards their usage. In a utilitarian fashion, Netscape had switched the cookies feature on without notifying or asking consent of the user, or giving them any indication as to the type of information being stored. Furthermore Netscape had failed to produce any documentation surrounding cookies. In mid 1995 it became the responsibility of the de facto Internet standards body, the Internet Engineering Task Force (IETF) led by David M. Kristol, a scientist at Bell Laboratories, to ensure there was a complete technical specification on state management.⁴³

This was escalated with fears of big brother tracking by the time the public became aware of their implication. On February 12, 1996 the *Financial Times* broke the story with an article on cookies and privacy⁴⁴ which was immediately picked up the following day in the U.S. , *"Web Cookies May Be Spying on You"*.⁴⁵ Together they helped created a huge public uproar and brought privacy concerns into the limelight, which was to become a key focus on Internet security.

⁴¹ Goddard, *supra* note 38

⁴² Timmons, Otto. Responding to a post entitled 'Banner ads tenth birthday!' on Adland. 27 October 2004. Available at: <http://commercial-archive.com/node/114815>

⁴³ Hedlund, Marc. State Wars, part XI (was: Revised Charter). 1 November 1995. Available at: <http://ftp.ics.uci.edu/pub/ietf/http/hypermail/1995q4/0161.html>

⁴⁴ Jackson, T. "This Bug in Your PC is a Smart Cookie." *Financial Times*, 12 February 1996.

⁴⁵ Gomes, L. "Web 'Cookies' May be Spying on You." *San Jose Mercury News*, 13 February 1996.

The original basis of the IETF's effort was Kristol's State-Info proposal limiting the state information to a browser session, requiring all cookies to be destroyed at the close of the browser. Netscape's cookies had no such requirement and could persist for many years, in effect lasting forever.⁴⁶

Cookies were fraught with security and privacy issues; the most notorious of these problems was third party cookies. Netscape's concept was for the visiting site to remember movements in between its pages and preventing another site reading the same information, which was Montulli's early privacy measure. For example, if the New York Times placed a cookie on a computer, Amazon.com could not read or modify the New York Times cookie.⁴⁷

However, there was a loop hole that would allow third party components of a web page to place their own cookies spotted by Koen Holtman, a Dutch computer scientist and privacy advocate fought to limit the expanding abilities of cookies for fear of violating user privacy. He realised that companies could, by agreement, place cookies across a network of related sites, and that those cookies could be used to track users. In December 1995 he issued a warning to the IETF group, "Someone is bound to try this trick, and it will, when discovered, generate a lot of bad publicity for the whole Web." He went on to say that web users *"can't really live with cookies because of user-tracking issues, but also can't live without them because that would lose them some important functionality or reliability."*⁴⁸

Though both Netscape and Microsoft in later browser versions gave users an element of control over cookie usage, Holtman's words turned out to be prophetic. Companies were already being set up to exploit this potential loophole and become the backbone of Internet advertising, leading to a new breed of business.

Get Big Fast

Netscape floated on August 9, 1995 and their Initial Public Offering (IPO), the first sale of stock by a private company to the public, was offered at \$14 per share. A last minute decision saw this double to \$28 per share and by the first day of trading the value reached \$75 – which was nearly a record for a stock's first-day gain. Netscape's revenues would go on to double every subsequent quarter.⁴⁹

This did not escape Microsoft's notice and released version 1.0 of Internet Explorer as a part of the Windows 95 Plus Pack add-on the same month. They too would come to be challenged over the cookie fiasco. As Netscape's revenues reached \$100 million in 1996, Microsoft began waging the browser wars at full throttle and threw manpower and resource at it. By 1998 Netscape saw its

⁴⁶ Kristol, David M. Proposed HTTP State-Info Mechanism. 25 August 1995. Available at: <http://tools.ietf.org/html/draft-kristol-http-state-info-00>

⁴⁷ Schwartz, *supra* note 4

⁴⁸ Schwartz, *supra* note 4

⁴⁹ Information gleaned from *Netscape*. Wikipedia. <http://en.wikipedia.org/wiki/Netscape>

dominance fall to 60% market share and with it reported an \$88 million dollar loss. By November AOL had acquired Netscape for \$4.2 billion and was eager to fight back against Microsoft and loses its dependence upon Internet Explorer.⁵⁰

Netscape's IPO was the start of the dot-com boom that would span the next five years, fuelled partly by the media who helped promote a widespread belief in a 'Get Big Fast' business strategy that ended up seeing \$2bn per week flowing into Silicon Valley by 1998 through venture capital firms such as Morgan Stanley and Merrill Lynch. The industry was whipped into frenzy and many internet firms were finding themselves rolling in cash based purely on an idea, before they had made any sales or obtained any customers. Investors were taking huge risks in uncharted territory, driven just to secure market share on a potential promise. There was even an exodus of high caliber MBA professionals from traditional firms to Silicon Valley, enticed by stock options and exploding IPOs, right up until the crash in March 2000.⁵¹

AOL had been the first online service to seamlessly integrate a web browser and content, and as such had become a firm favourite of the dot-com investors. A radical change in commercial focus would be forever actualised in the minds of the investors when the shift from those who saw the merits of mere technology like dial-up access, to having full faith in its convergence with content provision. Although there was a natural temperance towards technology in general growing with an ensuing nervousness around the potential harm of the Y2K millennium bug, which eventually passed by relatively painlessly.⁵²

AOL heralded the birth of new millennia of digital content provision when in January 2000 it acquired Time Warner, the world's largest media company for \$147 billion, making it the largest corporate acquisition on record. This was a significant moment for underpinning the importance of the Internet and to see it move from mere information service to multimedia entertainment environment. Exciting times promised for AOL's 22 million user base, the largest Internet audience in the world, as well as provide a confidence of reach for potential advertisers.⁵³ The dot.com crash would prove to be a mere shake out of the wheat and the chaff of strategic digital business thinking, inspired in part by cookies and part by clicks.

⁵⁰ Sheff, David. Crank It Up. Wired Magazine. August 2000. Available at: <http://www.wired.com/wired/archive/8.08/loudcloud.html?pg=5>

⁵¹ Allis, Ryan P. Zero to One Million. McGraw-Hill Professional. New York. 2007. Excerpt 'The Cause of the Dotcom Crash' can be seen at: <http://www.zeromillion.com/econ/dot-com-crash.html>

⁵² BBC News. Y2K bug fails to bite. 1 January 2000. Available at: <http://news.bbc.co.uk/1/hi/sci/tech/585013.stm>

⁵³ Martin, Mitchell. \$147 Billion Purchase Underscores Internet Power : AOL to Buy Time Warner In Biggest Corporate Deal. International Herald Tribune. 11 January 2000. Available at: <http://www.iht.com/articles/2000/01/11/aol.2.t.php>

A new breed of Commercialisation

Whilst the focus for many during the boom period was on infrastructure and front end of content production, some key advertising-based technologies were being developed and appropriated behind the scenes. Internet marketing had pushed new frontiers for advertisers and had played its part in contributing to the dot-com boom, with some corporations existing solely on advertising revenue. Before long they would define the commercial aspects of the Internet in its entirety and provide a means of a saviour for the dot-com crash of 2000. It would also become a tête à tête between two rival schools of thought; display advertising and search advertising. The former would look at intruding and immersing the user, the latter would emphasise contextually relevant, unobtrusive ads intended to help, rather than inundate, users.

The marketing definitions of branding and direct response would also be thrown into the arena.

DoubleClick

Although the web's early audience had seriously objected to advertising, it did not deter one entrepreneur, Kevin O'Connor, who already had a successful software firm bringing in \$35 million a year. He had sold this business to DCA in 1992 and was looking for his next challenge and during 1995 had been looking at Internet security. He had been watching Netscape and also noticed web advertising, but realised in order for it to take off, traditional advertisers would need to outsource the whole technical business of delivering ads to Web sites. They would also be interested in who saw them.

In late 1995, in his basement in Alpharetta, Georgia, along with chief technology officer Dwight Merriman, set up Internet Advertising Network (IAN). They eventually moved the company to New York City to be closer to media companies and advertising agencies of Madison Avenue and renamed it DoubleClick.⁵⁴

They recruited Wenda Harris Millard as executive vice president and her respect within the media industry, along with her contacts and knowledge brought a credibility that ensured DoubleClick were displaying ads across thousands of sites before too long.⁵⁵ DoubleClick's marketing said it "allows marketers to deliver the right message, to the right person, at the right time."⁵⁶

Initially representing websites to sell advertising space to marketers, DoubleClick launched DART in 1997, aimed at advertisers and publishers and focusing on online ad serving and management

⁵⁴ Biography.com. Kevin O'Connor Biography. A&E Television Networks. 2000. Available at: <http://www.biography.com/search/article.do?id=9542213>

⁵⁵ Biography.com, *supra* note 54

⁵⁶ Schwartz, *supra* note 4

technology and reporting their performance. In 1998, DoubleClick had the third largest audience reach on the Internet behind AOL and Yahoo,⁵⁷ and went public on Nasdaq with the stock's price doubling within a month of its IPO and they were valued at \$1.3 billion.⁵⁸ Growing to over 2,400 employees in 25 countries, throughout 2000/2001 following the dot-com crash, the company downsized to about 1,200 employees, divested its media sales business and in the process became very profitable.⁵⁹

Cookies were the key technology behind their online advertising network. They used this innovation to recognise a visitor wherever they visited across their network and allowed them to rotate the ads the user sees from site to site. It was totally unique and unlike any other media. It offered a completely compelling way of measuring movement online on behalf of the advertisers.⁶⁰

Reuters recently defined Cookies as 'a widely-used consumer tracking technology that Web sites rely on to customise what users see and advertisers use to target ads.'⁶¹ Burrows says it even more succinctly, "*Without cookies there would be no internet advertising,*" and elaborates, "*There would be no way of knowing unique users to determine reach and frequency – you would only be able to calculate clicks.*"⁶²

Privacy advocates feared that third-party cookies could be used to build a detailed profile of a Web user's habits. This came to a head in 1999 when DoubleClick acquired Abacus Direct for \$1.7 billion and became a matter of concern for the Federal Trade Commission.⁶³ Abacus was known to maintain an intimate database of the purchasing habits of 88 million offline catalogue shoppers. DoubleClick planned to merge this with its own online data, to obtain an unparalleled detailed level of consumers' habits for millions of people and then leverage this data 'to provide laser-targeted advertising to its many advertisers'.⁶⁴ There was a fierce public backlash that forced an inquiry into the company's practices, which was shown to be illegal and ultimately saw DoubleClick abandon the

⁵⁷ PR Newswire. DoubleClick Network Ranks #3 Behind AOL and Yahoo -Media Metrix Adds Internet Networks to Standard Reports. 30 June 1998. Available at:

<http://pqasb.pqarchiver.com/prnewswire/access/30837743.html>

⁵⁸ Biography.com, *supra* note 54

⁵⁹ Mariano, Gwendolyn, Ad grab: Net firm buys DoubleClick unit. ZDNet. 2002. Available at:

<http://news.zdnet.co.uk/itmanagement/0,1000000308,2118308,00.htm>

⁶⁰ Kesan & Shah, *supra* note 23

⁶¹ Reuters. Google Limits Data Retention in Compromise with EU. December 2007. Available at:

<http://www.cnbc.com/id/19180753/>

⁶² Burrows, *supra* note 40

⁶³ 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>

⁶⁴ 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/>

plan, pay a \$500,000 fine, and agree to clarify to consumers its data-collection practices within its privacy policy – actual wrongdoing was never admitted.⁶⁵

“Companies are learning from the missteps of the past year, and are obligated to bake privacy into the infrastructure of their new products lest they face the wrath of the critics,” said DoubleClick's chief privacy officer, Jules Polonetsky.⁶⁶

IAB Formats

As display advertising began to take hold, many websites desperate to jump on the commercial bandwagon decided to allow areas of their pages room for advertising, at the very least as a way of paying for their existence but with the ultimate hope of gaining profit. Often overly cluttered with a variety of shapes and sizes, the assumption was more adverts per page would equal more revenue.

Developing bespoke creative pieces to be used as advertising per website were fine in theory for the major players, but scalability, i.e. create once, re-use everywhere, and put pressure to remove the free-for-all mentality of web designers when considering the inclusion of spaces for advertising. There also needed to be some kind of uniformity of measurement to compare results across websites.

In 1995, Danny Meadows-Klue became the brand manager of the UK's first online newspaper, Telegraph.co.uk, and consistently won awards.⁶⁷ In 1998, Meadows-Klue co-founded the Internet Advertising Bureau (IAB) Europe, over shadowing the original 1996 concept of a worldwide network of trade associations. The concept was to focus on the government and protecting the freedom to advertise, prior to underpinning new ad formats, leading to information-sharing and research.⁶⁸ Industry think tanks and government task forces to grow the digital market relied on their directorship, leading the UK government to recognise Klue-Meadows as one of the 100 founders of Britain's digital industry.⁶⁹

“What we set out to do was make the market easier to trade in, simplifying complexity and removing barriers to trade,” Meadows-Klue comments. *“Sometimes this meant developing and promoting new formats like the skyscraper, sometimes the medium needed protecting from itself like when we had to run campaigns to reduce the volume of pop-ups or get clearer ‘close’ buttons in rich media. There have been dozens of standards initiatives, most of which*

⁶⁵ Olsen, Stefanie. DoubleClick nearing privacy settlements. CNet News. 29 March 2002. Available at: <http://www.news.com/2100-1023-871654.html>

⁶⁶ Schwartz, *supra* note 4

⁶⁷ Information taken from Extended biography: Danny Meadows-Klue. Available at: <http://www.digitalstrategyconsulting.com/biog/>

⁶⁸ Information taken from Welcome to IAB Europe. 2007. Available at: <http://www.iabeurope.ws/documents/Introducing%20IAB%20Europe.pdf>

⁶⁹ *Supra* note 67

are now what every agency and media owner does so routinely it's not even though of as being a standard; just how to do things well."⁷⁰

In February 2001, the IAB tackled the issue of over 250 ad sizes being used as advertising formats and pushed for an adoption of seven formats, suggesting one of the reasons behind the 200% drop in response rates.⁷¹ The challenge was immense and was revised the following year to be the 'Universal Ad Package' identifying six advert sizes, including the Banner and the Skyscraper, but pushing for adoption of four key sizes as standard. The aim was to make life easier for media planners and thus boost ad spend.⁷²

"We went jargon-crazy and did everything we could do to confuse the hell out of advertisers," Tim Brown, MD of Real Media UK says. *"We need to push towards talking the same language as advertisers in other media. Forget impressions or click-throughs, we need to talk about reach and frequency. However, we shouldn't play down the benefits and differences of this medium."*⁷³

Early advertising activity had been heavily based around branded sites rather than advertising as such. Revenues had been dropping following the dot-com crash and objectives of marketers shifted from mere brand association with key sites who had been happy to offer something unique, to now look for tangible results with a simplicity of roll-out with methods akin to other media. This rationalisation from the IAB was a key turning point for the development of online advertising, especially for display in particular, and this thought process would need to be continually revisited as new formats came to bear.

Search Advertising

Web designers had mostly come from traditional print backgrounds, and so approached web sites like a digital version of a brochure or magazine; a cover page (often heavily animated), a navigation or content area, then template pages of content. The beauty was that navigation could appear on every page making it easier to find content on any give site. The problem of locating the site was still an issue. With companies feeling warming to the idea of a brochure online to reach the masses, and with national advertising out of the reach of most businesses, especially for niche players who felt constrained by their local vicinity for advertising purposes or mere trade press at best, the internet was promising lead generation and high ROI for little outlay.

⁷⁰ Interview of Danny Meadows-Klue, co-founder and former President of IAB Europe, by Dean Donaldson. 30 December 2007.

⁷¹ Olsen, Stefanie. Group issues standards for bigger Web ads. Cnet News. 26 February 2001. Available at: <http://news.zdnet.co.uk/itmanagement/0,1000000308,2084650,00.htm>

⁷² Morrissey, Brian. IAB Rolls Out 'Universal Ad Package' The ClickZ Network, 11 December 2002. Available at: <http://www.clickz.com/showPage.html?page=1555401>

⁷³ Goddard, *supra* note 38

Display advertising and reliance upon banners was still in its infancy, and at worst deemed as expensive and immeasurable for the masses, unfamiliar with its nuances. Originally the need to get the word out involved cataloguing your site on some kind of web directory, broken down into sections like an online Yellow Pages, though a better concept was that of a search engine that was more interested in matching key words of content and sorting them into some kind of relevance. The latter promised a better user experience for most as would give you access to content from multiple directions looking for anyone discussing as well as selling a particular product anywhere in the world, as opposed to trawling categorised content of local suppliers.

Web designers needed to craft multiple pages specific to a search engine in order to generate 'organic listings' – natural results due to keyword analysis – which was timely to develop, set up and propagate and continually fraught with guess work. Questions regarding why develop specific content per search engine, when developing for a single search engine that was rising head and shoulders above all the others to deliver up to 80% of the traffic, i.e. Google, may suffice.⁷⁴

Pay-Per-Click (PPC)

Furthering the investment into the online arena, and riding through the dot-com crash, was what was to become the most profitable and influential area of Web advertising; Pay-Per-Click (PPC). It was way of developing a commercial response-based model alongside content classification as the web became indexed.

The concept was cost-effective in the fact for a fixed sum and in a matter of minutes you could be receiving traffic to your site. It answered measurability of online advertising, giving advertisers chance to make calculated budgets, and see ROI for their outlay – for many this was toe-in-the-water for this new medium. Being able to fully manage monthly expenditure as well as lead generation, it became scalable and gave an entry point for businesses of all sizes, and afforded small businesses to take on the large corporates with minimum investment. This in turn allowed a rise of home-grown e-commerce business to rise from their garages and take on the high street retailers. It fuelled a dramatic shift to online advertising taking revenue away from traditional press and classified advertising.⁷⁵

⁷⁴ This is an ongoing question that has continually perplexed search marketers. Though there has always been a fluctuation in prominence of results, it is fair to say Google has always been the key leader. Blodget, Henry. Future of Search Market: Google to 80%, Crumbs for YHOO. Silicon Valley Insider. 11 December 2007. Available at:

<http://www.alleyinsider.com/2007/12/google-going-to-7080-search-share-crumbs-for-yhoo.html>

Some interesting breakdown analysis can be seen on:

<http://sexyhood.blogspot.com/2007/01/search-engine-anaylsis-google-80-yahoo.html>

⁷⁵ In order to give online a boost, there was even an attempt to re-print all classified advertising online.

Noack, David. Theft of Newspaper Classified Advertising rises. 20 November 1998. Available at:

<http://www.allbusiness.com/services/business-services-miscellaneous-business/4680837-1.html>

Overture

In 1997, whilst most portals were trying to become destinations in and of themselves, Idealab from Los Angeles, tried to encourage Web sites to pay for more prominent placement in the search results and launched Goto.com. It pioneered the advertising model known as 'paid search' or 'pay-per-click'. The concept was rather than rank results based on placement of certain keywords within web pages, it would rank the results based on how much sites were willing to pay for them and allow these 'key words' to be continually bid in an open auction. Bill Gross, president of Idealab, described the key difference in their unique approach compared to other media owners advertising models, "They make money when you stay – I make money when you leave."⁷⁶

By June 1998 it became a fully fledged Search Engine, having signed a deal with Inktomi to use their results. By June the following year, it had a launched a toolset to allow advertisers to control their real time bidding and then went public. By 2001 it had rebranded as Overture and teamed up with Yahoo, who began to feature the paid listings on Yahoo search results. What Overture pioneered, with their syndication program was a simple and cost effective way for internet advertising to connect to content and take root across a plethora of search engines who were vying for a prominent position. Ultimately prominent search leaders would arise as people sought a single entry point to finding information, and the global battle became between MSN, Yahoo and Google. In a counter-measure against Google, on 7 October, 2003, Yahoo completed the purchase of Overture for \$2.2 billion.⁷⁷

Google

Larry Page and Sergey Brin met as two graduate computer science students met at Stanford University in 1995. They began working on a system of analyzing the 'back links' pointing to a given website. Their new search technology, BackRub, began to generate interest. Strapped for cash to invest in the storage devices, and with their beta search engine delivering 10,000 search results a day, they had managed to obtain \$1million in angel investment and in September 1998, Google Inc. of Menlo Park, California became a reality.⁷⁸ By February 1999, they were delivering 500,000 queries a day and needed to relocate to Palo Alto and by 7 June they had secured \$25 million from the two leading venture capital firms in Silicon Valley.⁷⁹

⁷⁶ Flynn, Laurie J. With Goto.com's Search Engine, the Highest Bidder Shall Be Ranked First . New York Times. 16 March 1998. Available at:

<http://query.nytimes.com/gst/fullpage.html?res=9B0CE2DF1539F935A25750C0A96E958260>

⁷⁷ Geddd, Brad. GoTo to Overture to YSM - Timeline. 21 September 2005. Available at:

<http://www.ewhisper.net/blog/goto-to-overture-to-ysm-timeline/>

⁷⁸ Information gleaned from *Google Milestones*. 2007. Available at:

<http://www.google.com/corporate/history.html>

⁷⁹ Google Press. Google Receives \$25 Million in Equity Funding. 7 June 1999. Available at:

<http://www.google.com/press/pressrel/pressrelease1.html>

In 2000, Google.com was available in ten language versions and in June, as it introduced a billion-page index and after a string of awards, Google officially became the world's largest search engine – never before had so much of the web's content been made available in a searchable format.⁸⁰

Google's strength and dominance was not limited to its organic listings. Despite the syndication program of Overture, Google's momentum ensured that if time and money was an issue, marketing efforts should begin with Google and then filtered out accordingly. They needed to affect the paid listing market. The real crescendo in 2000 was the launch of AdWords. The 'sponsored links', quick-loading text-based ads that appeared at the top of search results pages that boasted four-times higher click through rates than the industry average for traditional banner advertising that would soon become the largest performance-based search advertising program. With an advertiser login to manage their campaigns optimum performance complete with a simple payment processing system, it gave nervous advertisers a confidence to control budgets.⁸¹

Although Google had their own syndication program to propagate their search results as well as an ability to 'white label' their search technology to incorporate onto other websites requiring searchable functions, it was when they brought out 'AdSense', a content targeted advertising program, in 2003, they reached a tipping point and forever cemented the effectiveness of online advertising. They bought the technology from Applied Semantics for \$102 million and it was a key strategic move, as they had been Overture's key advertising partner.⁸²

Burrows explains; *"Adwords was about monetising generated page views. Adsense was more about contextual text-based ads – putting ads on any web page, anywhere – and thus developing an advertising network across the entire web. This was the 'Long Tail' monetisation of search."*⁸³ Google had succeeded in turning the freedom of the web into a commercial playground, and fulfilled the vision of the earliest Internet commercial pioneers.⁸⁴

Search had forced web designers to re-think content layout. They allowed people to jump beyond the homepage, and see content as non-linear but inter-connected from multiple points. Rather than merely promoting a website URL or address via other branding methods, it allowed web users to search for content or products and access them directly, irrespective of which company or organisation was behind it. This also challenged the notion of the effectiveness of brand-building online.

⁸⁰ Google Milestones, *supra* note 78

⁸¹ Google Press. Google's Targeted Keyword Ad Program Shows Strong Momentum with Advertisers. 16 August 2000. Available at: <http://www.google.com/press/pressrel/pressrelease31.html>

⁸² Olsen, Stefanie Google snaps up Applied Semantics. 23 April 2003. CNet News. Available at: <http://www.news.com/2100-1032-998114.html>

⁸³ Burrows, *supra* note 40

⁸⁴ *Supra* note 37

As bidding for category key words like 'insurance' were growing costly, moving from the 10p bidding start position to £30 plus, by specifying what kind of insurance on less competitive phrases, e.g. 'pet dog insurance' ensured a more targeted traffic would come thorough at less initial cost per lead and result in a higher chance of conversion. There was even talk about 'search as branding' as opposed to response, as a way of justifying these high placement values, or the very least the ads that never got clicked on.⁸⁵ Amazon would take a different approach as they soon realise the impact of this 'deep linking'.

Amazon

Amazon revolutionised advertng and business for the 21st century, challenged the very core of both in trying to establish themselves as a brand and in turn the promotion of the brands of others they were representing in trying to generate revenue. Amazon started in 1995, but it took them six years to make any profit. Despite turning over \$1.6 billion by end of 1999, it was to take until January 2002, before Amazon was finally to report its first profit, surprising critics and fans alike, by disclosing a Q4 2001 profit of \$5 million.⁸⁶

They had learned a very hard lesson in how to build an online brand. Ultimately they broke apart the notion of advertising as a one-way communication, whose purpose is to inform potential customers about products and services and how to obtain them, and instead instigated conversation. Amazon embraced the consumer and let them discuss amongst themselves. They are in effect one of the original Web 2.0 social networks.

Amazon was selling products and one of the pioneers for e-commerce. Having tried to build their brand on and offline, what they realised was people did not start searching for products after typing in a brand's URL. They looked at how search engines were helping products to take prominence over a brand. Ensuring a top position for 'Sony DVP-345 DVD player' to come up first on search listings, allowed the web user to click and find out more information about this product – and this would need be become a integral part of site development. The Amazon brand developed due to the effectiveness of the site as opposed to costly TV advertisements.

Amazon's founder Jeff Bezos explains: "more and more money will go into making a great customer experience, and less will go into shouting about the service... I'm not saying that advertising is going away. But the balance is shifting. If today the successful recipe is to put 70 percent of your energy

⁸⁵ Both the NPD Group in 2001 and the IAB in 2004 conducted surveys into the effectiveness of search as branding, demonstrating that people read ads quickly and therefore retain more. Bruemmer, Paul J. *Branding with Search Marketing*. Sempo. 2007. Available at: http://www.sempo.org/learning_center/articles/branding

⁸⁶ Cook, John & Frey, Christine. How Amazon.com survived, thrived and turned a profit. *SeattlePi.com*. 28 January 2004. Available at: http://seattlepi.nwsource.com/business/158315_amazon28.html

into shouting about your service and 30 percent into making it great, over the next 20 years I think that's going to invert.”⁸⁷

What Amazon has proved is that users are not transient, they don't always go via a homepage, but they do respond to certain influencers. Beyond word of mouth marketing of a great service there are practical concerns that are built into their platform built around the user experience, as well as the personalisation at all levels of the process offered by cookies.

- Reviews: What do others say? Star ratings and comments
- Recommendations: What would I like? Remembering choices and offering suggestions
- Options: What are my alternatives? Displaying similar items
- Incentives: Are there any special offers? Perfect partners and accessories
- Hesitance: Can I think about it and come back later? Wish lists and feeds
- Simplicity: Can I just press one button to order? One-Click ordering

Instead of sales man preaching how great something is, they have turned business into a two-way conversation and not been afraid to let people say ‘this product is bad, it needs to be fixed,’ even if this will challenge the brand advertising their wares, such is the nature of social-network advertising. Yet instead of jeopardising their business, the result has been they have made tangible conversions and are now one of the few commercial success stories that rode out the dot-com crash to become a household brand name.

Rich Media Advertising

From a commercial point of view, product relevance on search engines took over branding via banners, and response became the key sales pitch of the Internet Marketer. Paying only for lead generation, measured by a ‘click’ was something that banners could not adequately deliver due to variety of creative ideas and natural implications for execution.

However, with clicks becoming a prominent form of justification of money to come out of other media spends and into online, something was needed to increase the click through rate from websites that were not search engines. Websites were carrying lots of different ad sizes believing the more adverts, the higher revenue potential. The reality was the page was cluttered and adverts were being lost under an overbearing visual representation on screen and therefore response rates were low. The designers were working hard to make each banner more appealing with a higher

⁸⁷ Anderson, Chris. The Zen of Jeff Bezos. Wired Magazine. January 2005. Available at: <http://www.wired.com/wired/archive/13.01/bezos.html>

chance of delivering a “click through”. From a visual viewpoint, something needed to attract the user’s eye and then deliver a jump-point for further exploration.⁸⁸

Ad content was reliant upon the small graphics formats that could be served quickly as a page loaded and standards that had been adopted by the Internet; JPEG’s which were great for photo-realism and GIF’s that could possibly have a rolling animation sequence, but in essence the creative was restricted and ‘flat’. There was a need to find a format that better engaged with a user on a website, even intrusively if necessarily, as a way of grabbing a user’s attention and thus driving more traffic to an external advertiser’s website. There was even a backlash and distrust growing, as designers tried to simulate windows systems messages trying to fool users into click on adverts and thereby deliver higher response rates, equating a click to a conversion and justify online advertising. Another aspect of backlash was the perceived time of rendering a web page, and one answer was to install an ‘ad blocker’ to speed up the web page. Some in industry felt that faster connection speeds would be the solution; others felt restrictions on size and better regulation. Though useful insights, John Nardone, media director with Modem Media nailed the heart of the matter, *“Advertising becomes less annoying when it is perceived as useful to you.”*⁸⁹

Already exciting new technologies being developed would eventually inspire innovation of a few cutting-edge online advertisers to seek to break out of this mindset and deliver intelligent and tangible results.

Java

Sun Microsystems developed a technology known as Java which delivered small, executable programs that could be played within web browsers called ‘applets’. By 1996 it became the language of choice for early developers wishing to create multimedia content online. It was the first technology to fundamentally change the face of internet advertising as early Java interactive ad banners let users enter email addresses or data and delivered basic animation.

James Booth, founder and former managing director of UK digital ad technology company Tangozebra states, *“often cumbersome, the ads excited many and set up the mindset for when Macromedia’s Flash appeared.”*⁹⁰

Flash

⁸⁸ From a paper presented at the 52nd annual conference of the International Communication Association (ICA), Seoul, Korea.

Lee, S. Y. , & Sundar, S. S. Psychological effects of frequency and clutter in Web advertising. July, 2002. Media Effects Research Laboratory. Available at: <http://www.psu.edu/dept/medialab/research/webclutter.html>

⁸⁹ Weaver, Jane. Are banner ads' banner days over? ZDNet.10 March 1999. Available at: http://news.zdnet.com/2100-9595_22-513964.html

⁹⁰ Goddard, supra note

In the summer of 1995, Jonathan Gay was working on a product called SmartSketch at SISGRAPH and was exploring the idea of animation. Having heard of the Internet, he began exploring Java as a way of delivering animated content over the Internet but was appalled at the slow speeds. When Netscape launched a plug-in API for their browser in Autumn 1995, there became a way to extend the web browser beyond Java. Changing its name to reflect the animation qualities, FutureSplash Animator launched in May 1996. It was to bring a TV / Gaming multimedia experience without the need to download complicated plug-ins and Java installs – seamless and small – small enough to come down over dial-up phone lines.⁹¹

By August, Disney had seen the potential and begun using the product to animate content for its Disney Daily Blast. Microsoft too had inspirations to create the ‘most TV-like experience on the Internet’. By December, Software Company Macromedia had acquired the technology and shortened its name to Flash, and version 1.0 was launched. Flash soon stole Java's crown as the internet ad language of choice. By 2001 Flash Player had become possibly “the most widely distributed piece of software on the Internet – ahead of Internet Explorer, Netscape Navigator, and Real Player.”⁹²

DHTML

In 2000 the HTML language, the code used for creating web pages, had developed into DHTML – revealing the ‘dynamic’ nature of the code. In a way to embrace animation, it sought to find a way of moving content around a webpage with a web browser and so with it the advent of ‘layers’ that allowed content to appear on top of each other within a web browser. This was yet another step in opening up possibilities.⁹³

Keen eyes (or ears) were quick to spot the advertising potential. It started whilst shopping in a supermarket for Gal Triffon.

EyeBlaster

In September of 1999, Gal Trifon had formed a company called Ilissos along with Ofer Zadikario, Nir Ben Zvi and Amir Hardoof in Israel, an area known for its keen technological developments. They developed a product called ‘PEP – the Personal Expression Platform.’ By 2000, after Triffon had a brainwave after listening to an in store announcement whilst shopping, they began toying with the idea of a similar style advert for online. They began trial of a new ad technology that would become known as a floating advert or an overlay. The Web site iVillage.com that year carried a creative piece

⁹¹ Gay, Jonathon, *The History of Flash*. 2007. Adobe Systems Inc. Available at: http://www.adobe.com/macromedia/events/john_gay/page04.html

⁹² Gay, *supra* note 91

⁹³ Goddard, *supra* note 38

of Santa and his reindeers floating over the page to promote Christmas gifts that could be purchased through the site.⁹⁴

It was to take until the following year to perfect the format into a scalable platform of delivery for this new out-of-banner creative, and in January 2001 the company changed its name to Eyeblaster. By May the format had its official launch. A campaign in the US for the release of the film Moulin Rouge was to be the first rich media campaign which ran. The technology utilised both Flash and DHTML which enabled content to pass over the screen and come to rest in a banner or a button. It launched a new era in display advertising as ad content broke out of the defined restrictions of the banner space. 'Eyeblaster did for the Internet what the 30- and 60-second ad did for television: It basically invented the standard.'⁹⁵

Beyond the banner

Suzanne Brisendine, Director of Rich Interactive Marketing Programs at Intel Corporation, was the first to coin the term 'rich media' to describe a broad range of digital interactive media that exhibited motion, and took advantage of varying technologies and implementations to enhance sensory features such as video, audio and animation and felt the need to help realise the potential of the company's chipsets to drive this new form of advertising.⁹⁶ It worked, by 2006 the rich media industry was worth \$1.5 billion and predicted to be about 43.5 billion by 2010.⁹⁷

Formats become companies, which used the description of their format becoming branding potential to ease adoption. Like the kinetic DoubleClick before them, the verbs describing the formats that were being developed would become the trading names of the key players. Eyeblaster produced ads that exploded in front of the eyes and the content a user was reading; PointRoll technology allowed a user's mouse to touch an ad banner, which in turn would expand; EyeWonder lets advertiser's stream video commercials onto a Web page; and Unicast creates ads that allow users to navigate within them without leaving a Web site.⁹⁸

In the early years, people wanting to use a format would could to ask for it by the company name, for example an overlay, an advert appearing over content, would be known as an 'EyeBlaster' in the same vein as Vacuum cleaners were known as Hoovers. UniCast , take from the way content is streamed individually upon request between one computer (server) and another (a local machine) as

⁹⁴ Segal, David. Annoying floating ads are this guy's fault. 19 June 2006. The Washington Post. Available at: http://seattletimes.nwsourc.com/html/business/technology/2003070370_btnetads19.html

⁹⁵ Segal, *supra* note 94

⁹⁶ McCloskey, Bill. The Three Graces of Rich Media. Clickz Network. 13 September 2000. Available at: <http://www.clickz.com/showPage.html?page=829091>

⁹⁷ Segal, *supra* note 94

⁹⁸ Hu, Jim. Yahoo ads set to get busier. CNet News. 15 July 2002. Available at: http://www.news.com/2100-1023-943865.html?tag=cd_mh

opposed to a timed broadcast that people need to tune into, had already been running a variation of the pop-up advert known as a 'superstitial' advert back as early as 1999. By then they had already received \$15 million of funding for the adverts that loaded in between pages as users browsed the web.⁹⁹

As 2002 dawned and Eyeblaster's revenues reached \$5 million and they expanded into EMEA and Asia, Joe Apprendi, executive vice president of Eyeblaster Inc., said of intrusive ads "*they're the wave of the future*" as 30% of the Internet's top 100 Web sites use intrusive ads according to research by Cyveillance.¹⁰⁰ Although Eyeblaster may have been the first to market, they were not exclusive in Rich Media terms by any means as other companies worked equally hard from 1999 onwards to develop technologies that make it impossible to avoid Web advertisements and further help refine this niche area of the industry. The turning point would come on 15 July 2002, when the leading portal Yahoo would adopt four key rich media formats of the leading players simultaneous in the US, by September both AOL and MSN would follow suit.¹⁰¹

By 2003, all companies began to 'borrow' each other's formats, and in some cases refine and merge them together, such as an overlay to expandable ad format. Coupled with the standards brought to bear by the IAB, the industry would begin to have a key arsenal at its disposal that collectively would split the display advertising market into two segments, standard inventory and rich media inventory. Guestimates as to the size of percentage of Rich Media used within display advertising across a media schedule in terms of volumes of bookings hover around 7%, though this may vary across industry sectors. Entertainment and automotive, for example, may use a proportionately higher volume of rich advertising to cover the video aspects of their marketing. Volume percentages should not be confused with spends.¹⁰²

Prices for rich media have always been at a premium. When standard display advertising was selling for pennies, rich media was being sold for pounds. Originally this was justified due to their invasiveness, and the potential damage to a media property or portal for carrying such advertisements, due to potential user backlash, as well as the innovation and support for building these highly creative formats from the technology companies themselves. Both would be justified by the higher response rates. Clicks were the obvious adoption point-of-measurement, as this was fast becoming the industry norm in justifying media spend away from other media channels; you could

⁹⁹ PR Newswire. Unicast Receives Second Round of Financial Backing With \$8 Million In New Investments. PR Newswire 13 July 1999. Available at: <http://pqasb.pqarchiver.com/prnewswire/access/43116022.html?dids=43116022:43116022&FMT=ABS&FMTS=ABS>

¹⁰⁰ LaFrance, Siona. Caught in the Web. 1 September 2002. The Times-Picayune. Available at: http://www.nola.com/printer/printer.ssf?livingstory/webtricks_09.html

¹⁰¹ Hu, *supra* note 98

¹⁰² Goddard, *supra* note 38

tell what the viewer was doing more accurately. Rich media would deliver 5% click-through rate as opposed to the 1% average of standard display ads. Both would fall significantly.¹⁰³

Reach and frequency were equally important, how many people had seen a creative and how many times had they been exposed to it. Together they would reveal at what point they delivered results, i.e. after how many adverts shown would become the optimum point of generating a response. Formats would each produce a different response matrix, and so media buying for rich media would become a carefully selected process of looking at formats per industry sector and how many impressions would be needed to obtain a favourable response, often by looking for similar creative styles. No other medium can offer this level of detailed analysis, and so the demand for reporting would become even more paramount in the display advertising field.¹⁰⁴

One of the areas of concern would be discrepancies. From the point of time a page is called with a web browser, and the request of the advert has been called from the relevant providing technology company, to the point of displaying the final advert on screen would have an invariable lag of time, seen most prominent over dial up connections. This discrepancy could vary as much as 10% between the media owner requesting an advert from one of the rich media ad servers and final delivery. Agencies therefore would look to the rich media provider's results to pay for actual deliveries. As people have adopted broadband connections, in many cases this discrepancy figure would become less, with the IAB pushing for a lower level of accepted discrepancy between media owners and ad technology companies, due to cost of media inventory being lost and the commercial impact it was having.¹⁰⁵

Rich media is both intrusive and immersive, one to capture the user's eye of content, the other to hold their attention and deliver a creative message. The concept of branding online would therefore become a reality and challenge online advertising as a purely response based medium. Taking two stereotypical views of two of the company's original offerings, it was easier to look at how this shift occurred.

It could be argued that Eyeblander leaned towards intrusive, PointRoll leaned towards immersive. The former would use highly impacting creative's to jump out of the screen and provoke a response, where as the latter would utilise an area of the screen near the website navigation system to capture user's mouse pass-through to activate a trigger, resulting in a expanding creative response. All advertising by its very nature has an element of intrusiveness and in the terms of interactivity

¹⁰³ Wilson, Colin. Rich Media is Growing Faster and Faster. 30 October 2003. iMedia Connection. Available at: <http://www.imediaconnection.com/content/2139.asp>

¹⁰⁴ Goddard, *supra* note 38

¹⁰⁵ Picard, Eric. The State of Ad Serving. 7 June 2004. Clickz Network. Available at: <http://www.clickz.com/showPage.html?page=3363181>

offered by the rich media formats, both would offer an element of immersiveness for allowing the user to remain on page and engage with a creative piece, such as a game. This interactivity would provide a middle ground of justification for new metrics, looking at 'interaction rates', though due to varying creative's executions, confusion as to definition of this as a single metric and therefore a 'benchmark' continues to exist.¹⁰⁶

Considering the accepted inherent branding qualities of video, looking at EyeWonder's video-based solution would almost certainly lean heavily towards delivering branding online, for example, where as the micro site capabilities of UniCast's inclusion of things like data-capture would bring response to a new level online beyond a mere click offered by standard display and search. Together this shift has given rise to a new media term, 'Brand Response' which demonstrates how a marketing lifecycles of raising awareness to delivering a final conversion within an advert without the need for a user to click through or away from the content they are consuming, and most noticeable within the automotive sector.¹⁰⁷ Brand Response happens both seamlessly and more speedily, as well as more accurately predicted by measuring behaviours and re-targeting accordingly, such is becoming the norm with the rise of such digital media formats. No other medium can offer this level of behind-the-scenes information and is as a result maturing to a point of challenging the dispersion of spend across all media channels.

The journey online from response to branding is all most a parallel to the reading of a magazine backwards. In the back of a press publication you have classified ads with a call-to-action of picking up the phone, but towards the front there are the glossy pictures of a sexy brand, surrounding content and generating desire. Online offers a way of immersing yourself within those pictures to a virtual touch-and-feel that goes deep into a consumers psyche by engaging more of the senses and therefore triggers a remembrance at the point of purchase as brand recall. Online brand effectiveness is traditionally measured through surveys such as those offered by Dynamic Logic.¹⁰⁸

Originally online advertising was seen as practically an afterthought by the masses and despite dot-com boom, was still only a tiny percentage of any overall media spend, and/or time by anyone other than seasoned digital innovators who passionately believed and developed the media infrastructure and seek to explain and justify to willing and risk-taking clients. Search offered a starting point, Standard display helped justify a commonality of measurement across a media network, but it is rich media that is re-defining how and what advertising can become, and as click-throughs and costs

¹⁰⁶ Hays, Scott. OgilvyOne's Jonathan Adams. 23 December 2002. iMedia Connection. Available at: <http://www.imediaconnection.com/content/1265.asp>

¹⁰⁷ Brand Republic. Craik Jones 1991-2001: Driving Brand Response. 16 February 2001. Brand Republic. Available at: <http://www.brandrepublic.com/News/38648/>

¹⁰⁸ Information discussed in: IAB Rich Media Roadshow. 6. Measuring Brand Effectiveness with Dynamic Logic. 2007. Available at: http://www.iabuk.net/richmediaroadshow/media/pdfs/6_Measuringbrand.pdf

continue to fall, expectations of interactive advertising that delivers tangible conversions as a way of results will become the norm.

The rise of broadband saw video coming to a point in 2005 where rich media advertising providers saw 40% of their advertising carrying video assets,¹⁰⁹ but delivering a level of measurability that a broadcast medium with no return path can never deliver due to the technical restrictions of a one-way delivery mechanism such as TV could never do. The rise of PreRoll and InStream video advertising, or inserting video advert into a stream of video content, is now attacking TV budgets due to that measurability and personalisation of content selection by the users, and in turn forcing the TV companies to look at new methods of distributing their content, such as BBC's iPlayer.¹¹⁰

Challenging cost-per-click as suitable response based vehicle for measurement and turning their attention to branding – new measurements like time spent engaging with creative, brand recall, interaction or response within creative that could all be measured without a need for a user to click through. In the future this will negate the need for a micro site, at least downplaying its importance even if not ready to drop altogether – something being seen with the complementary rise of RSS and desktop widgets and delivering content to the user as opposed to a user to the content.¹¹¹

Rich media has helped re-define advertising, affording a new level of interactive engagement between a brand and their consumer, but as innovative as these technologies have been, they are how Burrows describes as “evolution not revolution. In essence it is still advertising against content. The level of interactivity, product placement backed by accurate targeting has not yet reached its tipping point for all that potential can be achieved in terms of a new style of advertising.”¹¹²

Acquisitions

2007 has seen huge investment into the advertising industry, led by MSN, Google and AOL amounting to \$10 billion. There has been a flurry of acquisitions and no apparent indication of slowdown.¹¹³ One of the key factors has been the notion of ‘Behavioural advertising’ as user profiling, understanding the relationship between a response to particular advert in context of its surroundings and how this can be used to influence the movement through the purchasing life cycle

¹⁰⁹ Information gleaned from: IAB Rich Media Roadshow. 5. Best practice Rich Media advertising from Eyeblaster. 2007. Available at: http://www.iabuk.net/richmediaroadshow/media/pdfs/5_Eyeblaster.pdf

¹¹⁰ Mandese, Joe. Ad Execs See TV Budgets Moving Into Online Video. MediaPost. 14 November 2006. Available at: http://publications.mediapost.com/index.cfm?fuseaction=Articles.showArticle&art_aid=51103

¹¹¹ From Eyeblaster presentation delivered in Bonita Springs, Florida.

Arnstein, Yoav. Rich Media Interaction and Engagement Rates. 6 February 2007. Available at: <http://www.imediaconnection.com/summits/coverage/13530.asp>

¹¹² Burrows, *supra* note 40

¹¹³ 2007 acquisitions discussed in “The 2007 Shake-Out”. AlwaysOn Magazine. 02 January 2008. Available at: <http://alwayson.goingon.com/permalink/post/22766>

as the user moves to consumes various digitally enabled media. This has been made possible by the progression of use of cookies.¹¹⁴

There have been rumours we are heading towards a dot-com crash seen in 2000, due to the huge figures being bandied around, but with historic trading values and current revenue as hard cash as opposed to mere speculation, the concept speculation as seen in early days of the Internet development. Over the last ten years there are solid business plans in operation ensuring more realistic projections, and complemented with an adoption of technology as it has permeated into the home and business, affected the nature of entertainment and media consumption brought to bear by advancements such as higher processor speeds, broadband penetration and wireless adoption.

“The key difference with the late 1990s is that companies now have a model of how to make money from the internet - and that model is based on advertising.”¹¹⁵

Search and display has finally combined, with most players seeing the potential of cross-selling and serving content – and the relationship that would need to exist between them, such as see an ad, perform a search, see another targeted relevant ad, search for specific information, then convert, perhaps even within another advert including data capture. The next stage of potential that has captures the imagination of media buyers is becoming a perceived reality and affecting the way the industry gears itself up for it, shown by leading global media agencies such as Starcom Mediavest and Isobar global pulling digital and television media buying teams into the same rooms as they realise cross-media strategy needs to be thought of from the outset, as opposed to seeing online as an afterthought. Internet advertising has come of age.¹¹⁶

This also reveals how this relationship between search and display will break out into other media channels, such as mobile and TV to complement web, and the relationship between them to serve dynamic advertising. This relies upon both behavioural advertising and rich media adoption at an agency ad server level that can follow a user irrespective of the site they visit, as opposed to doing this at a publisher ad server level that would restrict tracking capabilities merely to their own publisher network and hence the flurry of investment into the acquisitions of key advertising technologies.¹¹⁷

Ethical considerations

¹¹⁴ Blodget, Henry. AOL Buys Tacoda for \$275 Million. Silicon Alley Insider. 24 July 2007. Available at: <http://www.alleyinsider.com/2007/07/aol-to-buy-taco.html>

¹¹⁵ Schifferes, Steve. Has the dotcom boom returned? 10 October 2006. BBC News. Available at: <http://news.bbc.co.uk/2/hi/business/6036337.stm>

¹¹⁶ Authors own insights

¹¹⁷ Jesdanun, Anick. Behavioral Ad Targeting Comes of Age. CRM Daily. 3 December 2007. Available at: http://www.crm-daily.com/news/Behavioral-Ad-Targeting-Comes-of-Age/story.xhtml?story_id=0320003QG7FK

Google's acquisition of DoubleClick in 2007 has sparked the same fear and fury over DoubleClick's previous Abacus merger which has again sparked privacy fears of 'big brother' tracking. The dilemma exists as anonymity is sought by users, greater tracking is sought by advertisers keen to reduce advertising wastage and improve ROI. It has reached the levels of the FTC for investigation.¹¹⁸

David Pugh-Jones, Creative Strategist EMEA for Microsoft Digital Advertising Solutions feels there is a gross over reaction to privacy fears. *"Privacy is not something new or to be feared – 50 years ago people lived in houses with paper walls and the neighbours all knew what was going on. Your business was everyone else's gossip around the village. Look at Facebook, for example, it's just a modern equivalent."*¹¹⁹

Though this comment has some merit due to the shifts in social thinking and people fearing the unknown, the virtual walls purported by online advertising have now moved beyond your local home or even those in your local community, that you may previously have had an element of control over who you know, to a world of prying eyes of people you may never come into contact with, or people you may wish to divulge this information. People place locks on their doors and draw their curtains for a reason.

It also brings with it a sense of Utilitarianism – where the end justifies means – and very often the general business ethics of steamrolling against user wishes. As long as it is deemed the greatest good for the greatest number of people, and from a business point of view, that ultimately means the owners and stakeholders seem to have a higher value of worth than the consumers themselves.¹²⁰ Under this view, only those activities that increase profitability and shareholder value should be encouraged. Any reward to a user, perceived or real, is justified through less advertising clutter and more relevance to their needs, whilst down playing any negative implications of tracking technologies.

The problem here is that there is no sense of ultimate logic or scientific study to prove it is right from any higher viewpoint. There is no ultimate definition of 'good' or a yardstick of which to define it against, i.e. one man's pleasure may be another man's poison and vice versa, and as Immanuel Kant states that there is nothing "...which can be regarded as good without qualification, except a good

¹¹⁸ Halm, K.C., London, R., Hossain, R., Shelby, A. Report on the FTC's Conference on "Ehavioral Advertising". Davis Wright Tremaine. 18 December 2007. Available at: <http://www.privsecblog.com/archives/personal-privacy-report-on-the-ftcs-conference-on-ehavioral-advertising.html>

¹¹⁹ Interview of David Pugh-Jones, Creative Strategist EMEA, Microsoft Digital Advertising Solutions by Dean Donaldson. 18 December 2007.

¹²⁰ Friedman, Milton. "The Social Responsibility of Business is to Increase Its Profits". The New York Times Magazine. 13 September 1970. Available at: <http://www-rohan.sdsu.edu/faculty/dunnweb/rprnts.friedman.html>

will.”¹²¹ Therefore the mere utilitarian profitability at any cost needs to be counterbalanced with a deontological viewpoint – where there is a sense of duty, concerned with rights of the individual. After all privacy is a basic human right, whether that is the public's “right to know” or an individual's “right to privacy”, which is a basic premise of balance behind media ethics.¹²²

Marketers may by suggestions offer consumers a Guinness hat to wear whilst drinking Guinness on St Patrick’s Day. They may even pay for such a hat or a tee-shirt of their preferred brand. But the balance here is in the fact that they are ‘choosing’ or at least in their minds. But at a higher level, ethical questions surround is this ultimately choice or coercion i.e. using force or intimidation to obtain compliance?

If we go back far enough, the idea of sorting humans and automating this process, specifically identifying key trends was the sole origin of the computer. The Hollerith Tabulating machine (the forerunner to IBM computers) was designed purely for this purpose. The Internet was merely a development and a linking together of many of these machines to share common data. What happens as a result of being able to not only catalogue and classify content but to find a way of commercialising the content and tracking individuals for that purpose? Ethical considerations are brought to bear when you consider that Nazis used this technology to categorise Jews in the Second World War.¹²³ Armed with the power of this new technology, what safe guards are in place against another bid of any such group to establish a new world order attracted by the promise of immense power?

Summary

Looking back historically the shift of balance of power in online commerce from pure connectivity, to access of content to that content matched against targeted advertising. The pattern has been distinctively innovation, then a period of settlement (sometimes merging) and standardisation followed by a further burst of innovation. Each has brought with it business and social implications for change, from the way we access and consume and then respond to both content and advertising and how this will play out moving forward into what is now possible with the crossover of other media and/or new methods of consumer interplay (search/social networking/IPTV, etc).

What has stayed consistent is that advertising sits against content, and despite innovative formats to date, the focus predominantly is about how to drive advertising effectiveness and create an

¹²¹ Kant, Immanuel; translated by James W. Ellington [1785] (1993). *Grounding for the Metaphysics of Morals* 3rd ed.. Hackett. Indianapolis. p7

¹²² France, Elizabeth. The Right to Know. *The Guardian*. 12 September 2002. *Available at:* <http://www.guardian.co.uk/bigbrother/privacy/blackmarket/story/0,,794431,00.html>

¹²³ Black, Edwin. *IBM and the Holocaust*. Crown Publishing Group. New York. 2002.

immediate response, and mostly that has been from a technological ‘data’ view point as opposed to a ‘user experience’ viewpoint. When the two combine such as in the case of Amazon, the results can be phenomenal but as they themselves proved, much still needs to be done in terms of correctly identifying the relationship between advertiser and consumer and finding a balance of how this will result in new ways of reach. Push too far and the detrimental effects of Prodigy will be replicated and throw brands into a tailspin they may never recover from. Ultimately marketers may need to learn to let go of the reigns of branding control.¹²⁴

Digital advertising over these last fifteen years has ensured that business models and nature of advertising has forever changed. No longer can advertisers preach but rather they need to discuss. Feedback will need to lead to product improvements and a way of drawing end user into the beta testing life cycle. Advertisers will need to listen and draw users into the development process at a much earlier stage as opposed to see them merely as an end recipient who unintelligently says ‘ok then’ when presented with a final solution; something predicted back in 1994 was that ‘ads would become a medium of collaboration between potential buyer and potential seller’.¹²⁵

Cookies were one of the key technologies behind online advertising – affording a unique way of measuring movement online on behalf of the advertisers, and quite unlike any other media. The ability to learn and suggest in order for better targeting was always something in the back of minds of advertising technology innovators, but not necessarily in the minds of those who developed cookies from the outset. But any move towards obvious targeting will naturally raise alarm bells by privacy activists citing a big-brother surveillance society – there exists a need to strike a balance of users wanting to receive relevant content and not wanting obvious advertising will become key – else behavioural advertising will be thwarted by the ethical implications it raises.¹²⁶

Digital advertising was always around data equalling power with a promise of unparalleled data collection and a hint of domination over other media, but in the early days, the rush to market affecting build, development and investment, meant in some cases significant questions around

¹²⁴ Authors own thoughts but discussed in more detail on ‘What is Open Source Marketing?’ at: http://www.collaboratemarketing.com/open_source_marketing/

¹²⁵ Wired article from 1994 quoted that among the “new rules of engagement governing business competition” will be “initiating, maintaining, and improving dialogs with individual consumers, abandoning the old-fashioned advertising monologs of mass media.”

Supra note

Schrage, Michael. Is Advertising Dead? February 1994. Wired Magazine. Available at: <http://www.wired.com/wired/archive/2.02/advertising.html>

¹²⁶ Halm, K. C. *et al.* supra note 118

solid business models were left unanswered. That is no longer the case as online advertising last year became more than a \$20 billion industry.¹²⁷

Online has ensured a radical re-think of advertising in general and is effecting how the media world buys and analyses, predicts and measures, though not before a severe pruning and levelling off took place. Now it is fast becoming an established media business which is challenging the very core of the nature of advertising across all media, redefining the very relationship between the media owner and their advertiser in terms of 'allowing' what can and cannot be accepted. It has shown what is possible in terms of user understanding and how that in turn can be reused to further optimise future campaigns and bring a laser-accurate targeting of consumers from the advertisers perspective, providing a two-way conversation is cultivated between them both.

Multimedia, adding interactivity to audio visual content is still challenging the relationship between brand and response. It has been suggested that viral marketing was a key point at which marketers understand what worked online,¹²⁸ but rich media is still yet to see its realisation of immersing a user within a branded environment within content to effect the emotions that may be picked up at a point of purchase later, as opposed to seeking a means of triggering an immediate knee-jerk reaction that in many cases can be misinterpreted.

Web 2.0 has seen investments into ad technology that now ask will bubble 2.0 follow? If any confidence can be seen in terms of figures, internet advertising revenue, according to a joint study between the IAB and PricewaterhouseCoopers is steadily and solidly increasing.¹²⁹ There was a huge hike in revenue during the dot-com boom, post-1995 reaching a peak in Q4 2000. Once the effects of the crash had ricocheted around, the industry went into a slight decline until in bottomed out in 2002. Since then it has been growing steadily until expected Q4 2007 revenue will equal the entire 2002 annual revenue.

1996: \$267 million

2000: \$8.2 billion

2002: \$6.01 billion

2005: \$12 billion

2007: \$20 billion

The relationship breakdown:

¹²⁷ Nitke, Marla. Internet Advertising Revenues in Q3 '07 Surpass \$5.2 Billion, Setting New High 12 November 2007. Available at:

http://www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/64544

Actual results can be downloaded from: http://www.iab.net/insights_research/1357

¹²⁸ Goddard, *supra* note 38

¹²⁹ Nitke, *supra* note 127

Display (inc. sponsorship)– 32% (*Rich Media* – 7%)

Search (inc. lead generation) – 48%

Classified – 20%

Email – 2%

Search is 57% of breakdown in the UK, with Display 21%.¹³⁰

Google has become the most valuable property on the internet. Selling \$10 billion worth of advertising a year advertising around its searches, which currently equates to half of the online advertising spend (it makes annual profits of \$2.4 billion).¹³¹ The potential power it wields, and the potential power of data it has access to moving forward naturally raise very grave concerns to the one-sixth of the world's population who are currently online, but this just shows the power of the advancement of Internet advertising since its inception.

¹³⁰ UK results obtained from www.iabuk.net/media/images/Onlineadspendfactsheet_H12007_1898.pdf

¹³¹ Schifferes, *supra* note 115

Bibliography

- A&E Television Networks. 2000.** Kevin O'Connor Biography. *Biography.com*. [Online] 2000. [Cited: 14 December 2007.] <http://www.biography.com/search/article.do?id=9542213>.
- Allis, Ryan P. 2007.** *Zero to One Million*. New York : McGraw-Hill, 2007.
- Allison, David K. 1995.** Excerpts from an Oral History Interview with Marc Andreessen. *National Museum of American History, Smithsonian Institution*. [Online] June 1995. [Cited: 27 December 2007.] <http://americanhistory.si.edu/collections/comphist/ma1.html>.
- AlwaysOn Magazine. 2008.** The 2007 Shake-Out. *AlwaysOn Magazine*. [Online] 2 January 2008. [Cited: 3 January 2008.] <http://alwayson.goingon.com/permalink/post/22766>.
- Anderson, Chris. 2005.** The Zen of Jeff Bezos . *Wired Magazine*. [Online] January 2005. [Cited: 4 January 2008.] <http://www.wired.com/wired/archive/13.01/bezos.html>.
- Arnstein, Yoav. 2007.** Rich Media Interaction and Engagement Rates. *iMedia Connection*. [Online] 6 February 2007. [Cited: 23 December 2007.] <http://www.imediaconnection.com/summits/coverage/13530.asp>.
- Bayers, Chip. 1998.** The Promise of One to One (A Love Story). *Wired Magazine*. [Online] May 1998. [Cited: 27 December 2007.] http://www.wired.com/wired/archive/6.05/one_to_one.html.
- BBC News. 2000.** Y2K bug fails to bite. *BBC Science/Nature*. [Online] 1 January 2000. [Cited: 2 January 2008.] <http://news.bbc.co.uk/1/hi/sci/tech/585013.stm>.
- Berners-Lee, Tim. 1992.** Basic HTTP as defined in 1992. *World Wide Web Consortium*. [Online] 1992. [Cited: 27 December 2007.] <http://www.w3.org/Protocols/HTTP/HTTP2.html>.
- . **1991.** HyperText Transfer Protocol Design Issues. *World Wide Web Consortium*. [Online] 1991. [Cited: 27 December 2007.] <http://www.w3.org/Protocols/DesignIssues.html>.
- . **1999.** *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor*. 1st edition. San Fransisco : Harper, 1999.
- Black, Edwin. 2002.** *IBM and the Holocaust*. New York : Crown Publishing Group, 2002.
- Blodget, Henry. 2007.** AOL Buys Tacoda for \$275 Million. *Silicon Alley Insider*. [Online] 24 July 2007. [Cited: 24 November 2007.] <http://www.alleyinsider.com/2007/07/aol-to-buy-taco.html>.

—. 2007. Future of Search Market: Google to 80%, Crumbs for YHOO. *Silicon Valley Insider*. [Online] 11 December 2007. [Cited: 12 December 2007.] <http://www.alleyinsider.com/2007/12/google-going-to-7080-search-share-crumbs-for-yhoo.html>.

Brand Republic. 2001. Craik Jones 1991-2001: Driving Brand Response. *Brand Republic*. [Online] 16 February 2001. [Cited: 3 January 2008.] <http://www.brandrepublic.com/News/38648/>.

Bruemmer, Paul J. 2007. Branding With Search Marketing. *Sempro*. [Online] 2007. [Cited: 2 January 2008.] http://www.sempro.org/learning_center/articles/branding.

BT Media Centre. 2006. BT Vision - passing you the control . *BT*. [Online] 4 December 2006. [Cited: 29 December 2007.] <http://www.btplc.com/News/Articles/Showarticle.cfm?ArticleID=aefe3bbc-65cd-4bf0-9e63-7d6bb6aee1c6>.

Burrows, David. 2007. *Head of Ad Technology, Yahoo! Europe*. [interv.] Dean Donaldson. 18 December 2007.

Butner, R. 2001. Out of order: Hypertext's past, present and future. [Online] 2001. [Cited: 20 December 2007.] <http://www.zdnet.com/yil/content/mag/9611/hyper9611.html>.

Cook, John & Frey, Christine. 2004. How Amazon.com survived, thrived and turned a profit. *SeattlePi.com*. [Online] 28 January 2004. [Cited: 3 January 2008.] http://seattlepi.nwsource.com/business/158315_amazon28.html.

Flynn, Laurie J. 1998. With Goto.com's Search Engine, the Highest Bidder Shall Be Ranked First . *New York Times*. [Online] 16 March 1998. [Cited: 2 January 2008.] <http://query.nytimes.com/gst/fullpage.html?res=9B0CE2DF1539F935A25750C0A96E958260>.

France, Elizabeth. 2002. The Right to Know. *The Guardian*. [Online] 12 September 2002. [Cited: 14 December 2007.] <http://www.guardian.co.uk/bigbrother/privacy/blackmarket/story/0,,794431,00.html>.

Friedman, Milton. 1970. The Social Responsibility of Business is to Increase Its Profits. *The New York Times Magazine*. [Online] 13 September 1970. [Cited: 3 January 2008.] <http://www-rohan.sdsu.edu/faculty/dunnweb/rprnts.friedman.html>.

Gaffin, Adam. 1991. Prodigy: Where Is It Going? *Iowa State University EServer*. [Online] 1991. <http://internet.eserver.org/Prodigy.txt>.

Gay, Jonathon. 2007. The History of Flash. *Adobe Systems Inc*. [Online] 2007. [Cited: 17 December 2007.] http://www.adobe.com/macromedia/events/john_gay/page04.html.

Gedd, Brad. 2005. GoTo to Overture to YSM - Timeline. *eWhisper*. [Online] 21 September 2005. [Cited: 2 January 2008.] <http://www.ewhisper.net/blog/goto-to-overture-to-ysm-timeline/>.

Goddard, Charlotte. 2003. Click here - 10 years of online advertising. *Revloution UK: Brand Republic*. [Online] 1 December 2003. [Cited: 4 December 2007.] <http://www.brandrepublic.com/News/197212/10-YEARS-ADVERTISING-INNOVATION-Click---10-years-online-advertising/>.

Gomes, L. 1996. Web 'Cookies' May be Spying on You. *San Jose Mecrury News*. 13 February 1996.

Google. 2007. Google Milestones. *Google Corporate History*. [Online] 2007. <http://www.google.com/corporate/history.html>.

—. **1999.** Google Receives \$25 Million in Equity Funding. *Google Press Center*. [Online] 7 June 1999. [Cited: 7 December 2007.] <http://www.google.com/press/pressrel/pressrelease1.html>.

Google Press. 2000. Google's Targeted Keyword Ad Program Shows Strong Momentum with Advertisers . *Google Press Center*. [Online] 16 August 2000. [Cited: 7 December 2007.] <http://www.google.com/press/pressrel/pressrelease31.html>.

Hallam-Baker, Dr Phillip. 2003. History of Referer. *Governing with Code*. [Online] 2003. [Cited: 23 December 2007.] www.governingwithcode.org/case_studies/pdf/Cookies.pdf.

Halm, K.C., London, R., Hossain, R., Shelby, A. 2007. Report on the FTC's Conference on "Ehavioral Advertising". *Davis Wright Tremaine*. [Online] 18 December 2007. [Cited: 19 Decemeber 2007.] <http://www.privsecblog.com/archives/personal-privacy-report-on-the-ftcs-conference-on-ehavioral-advertising.html>.

Hays, Scott. 2002. OgilvyOne's Jonathan Adams. *iMedia Connection*. [Online] 23. . 23 December 2002. . Available at: December 2002. [Cited: 3 January 2008.] <http://www.imediaconnection.com/content/1265.asp>.

Hedlund, Marc. 1995. State Wars, part XI (was: Revised Charter). *HTTP-WG Mailing List Archive*. [Online] 1 November 1995. [Cited: 21 December 2007.] <http://ftp.ics.uci.edu/pub/ietf/http/hypermail/1995q4/0161.html>.

Hu, Jim. 2002. Yahoo ads set to get busier. *CNet News.com*. [Online] 15 July 2002. [Cited: 14 November 2007.] http://www.news.com/2100-1023-943865.html?tag=cd_mh.

IAB . 2007. IAB Rich Media Roadshow. *IAB UK*. [Online] 2007. <http://www.iabuk.net/richmediaroadshow/resources.htm>.

- IAB Europe. 2007.** Welcome to IAB Europe. *IAB Europe*. [Online] September 2007. [Cited: 28 December 2007.] <http://www.iabeurope.ws/documents/Introducing%20IAB%20Europe.pdf>.
- Jackson, T. 1996.** This Bug in Your PC is a Smart Cookie. *Financial Times*. 12 February 1996.
- Jesdanun, Anick. 2007.** Behavioral Ad Targeting Comes of Age. *CRM Daily*. [Online] 3 December 2007. [Cited: 5 December 2007.] http://www.crm-daily.com/news/Behavioral-Ad-Targeting-Comes-of-Age/story.xhtml?story_id=0320003QG7FK.
- Johnson, Tom. 2000.** That's AOL folks... . *CNN Money*. [Online] 10 January 2000. [Cited: 29 December 2007.] http://money.cnn.com/2000/01/10/deals/aol_warner/.
- Kant, Immanuel. 1993.** *Grounding for the Metaphysics of Morals [1785]*. [trans.] James W. Ellington. 3rd Edition. Indianapolis : Hackett Publishing Co, Inc, 1993. p. 7.
- Kesan, Jay P and Shah, Rajiv C. 2002.** SSRN-Shaping Code. Illinois Public Law Research Paper No. 02-18. *Social Science Research Network*. [Online] September 2002. [Cited: 27 December 2007.] http://papers.ssrn.com/sol3/papers.cfm?abstract_id=328920.
- Kristol, David M. 1995.** Proposed HTTP State-Info Mechanism. *IETF Tools*. [Online] 25 August 1995. [Cited: 23 December 2007.] <http://tools.ietf.org/html/draft-kristol-http-state-info-00>.
- LaFrance, Siona. 2002.** Caught in the Web. *The Times-Picayune*. [Online] 1 September 2002 2002. [Cited: 2 January 2008.] http://www.nola.com/printer/printer.ssf?/livingstory/webtricks_09.html.
- Lashinsky, A. 2005.** Remembering Netscape: The Birth Of The Web. *Fortune Magazine*. [Online] 25 July 2005. [Cited: 27 December 2007.] http://money.cnn.com/magazines/fortune/fortune_archive/2005/07/25/8266639/index.htm.
- Lee, S. Y. , & Sundar, S. S. 2002.** Psychological effects of frequency and clutter in Web advertising . *Media Effects Research Laboratory*. [Online] July 2002. [Cited: 4 January 2008.] <http://www.psu.edu/dept/medialab/research/webclutter.html>.
- Lewis, Peter H. 1996.** Sears, I.B.M. Near a Deal To Sell Prodigy. *New York Times*. [Online] 8 May 1996. [Cited: 27 December 2007.] <http://query.nytimes.com/gst/fullpage.html?res=9B00E2DD1539F93BA35756C0A960958260>.
- Living Internet.** Mosaic - The First Global Web Browser . [Online] http://www.livinginternet.com/w/wi_mosaic.htm.
- Macavinta, Courtney. 1999.** DoubleClick, Abacus merge in \$1.7 billion deal. *CNet News.com*. [Online] 24 November 1999. [Cited: 7 December 2007.] <http://www.news.com/2100-1023-233526.html>.

Mandese, Joe. 2006. Ad Execs See TV Budgets Moving Into Online Video. *MediaPost Publications*. [Online] 14 November 2006. [Cited: 3 January 2008.]

http://publications.mediapost.com/index.cfm?fuseaction=Articles.showArticle&art_aid=51103.

Mariano, Gwendolyn. 2002. Ad grab: Net firm buys DoubleClick unit. *ZDNet.com*. [Online] 2 July 2002. [Cited: 19 December 2007.]

<http://news.zdnet.co.uk/itmanagement/0,1000000308,2118308,00.htm>.

Martin, Mitchell. 2000. \$147 Billion Purchase Underscores Internet Power: AOL to Buy Time Warner In Biggest Corporate Deal. *International Herald Tribune*. [Online] 11 January 2000. [Cited: 2 January 2008.] <http://www.ihf.com/articles/2000/01/11/aol.2.t.php>.

McCloskey, Bill. 2000. The Three Graces of Rich Media. *Clickz Network*. [Online] 13 September 2000. [Cited: 17 December 2007.] <http://www.clickz.com/showPage.html?page=829091>.

Meadows-Klue, Danny. 2007. Extended biography: Danny Meadows-Klue. *Digital Strategy Consulting*. [Online] 2007. [Cited: 3 January 2008.] <http://www.digitalstrategyconsulting.com/biog/>.

Morrissey, Brian. 2002. IAB Rolls Out 'Universal Ad Package'. *The ClickZ Network*. [Online] 11 December 2002. [Cited: 14 December 2007.]

<http://www.clickz.com/showPage.html?page=1555401>.

Muncaster, Phil. 2007. BT backs free Wi-Fi access. *IT Week*. [Online] 4 October 2007. [Cited: 29 December 2007.] <http://www.itweek.co.uk/itweek/news/2200485/bt-backs-free-wi-access>.

Nitke, Marla. 2007. Internet Advertising Revenues in Q3 '07 Surpass \$5.2 Billion, Setting New High. *IAB*. [Online] 12 November 2007. [Cited: 4 January 2008.]

http://www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/64544.

Noack, David. 1998. Theft of Newspaper Classified Advertising rises. *All Business*. [Online] 20 November 1998. [Cited: 14 December 2007.] <http://www.allbusiness.com/services/business-services-miscellaneous-business/4680837-1.html>.

Olsen, Stefanie. 2002. DoubleClick nearing privacy settlements. *CNet News*. [Online] 29 March 2002. [Cited: 14 December 2007.] <http://www.news.com/2100-1023-871654.html>.

—. **2003.** Google snaps up Applied Semantics. *CNet News*. [Online] 23 April 2003. [Cited: 19 December 2007.] <http://www.news.com/2100-1032-998114.html>.

—. **2001.** Group issues standards for bigger Web ads. *Cnet News*. [Online] 26 February 2001. [Cited: 21 December 2007.] <http://news.zdnet.co.uk/itmanagement/0,1000000308,2084650,00.htm>.

Pasternack, Dave. 2007. Google and DoubleClick: Risky business? *DM News*. [Online] 3 April 2007. <http://www.dmnews.com/Google-and-DoubleClick-Risky-business/article/95312/>.

Picard, Eric. 2004. The State of Ad Serving. *Clickz Network*. [Online] 7 June 2004. [Cited: 2 January 2008.] <http://www.clickz.com/showPage.html?page=3363181>.

PR Newswire. 1998. DoubleClick Network Ranks #3 Behind AOL and Yahoo -Media Metrix Adds Internet Networks to Standard Reports. *PR Newswire*. [Online] 30 June 1998. [Cited: 14 December 2007.] <http://pqasb.pqarchiver.com/prnewswire/access/30837743.html?dids=30837743:30837743&FMT=ABS&FMTS=ABS>.

—. **1999.** Unicast Receives Second Round of Financial Backing With \$8 Million In New Investments. *PR Newswire*. [Online] 13 July 1999. [Cited: 5 January 2008.] <http://pqasb.pqarchiver.com/prnewswire/access/43116022.html?dids=43116022:43116022&FMT=ABS&FMTS=ABS>.

Pugh-Jones, David. 2007. *Creative Strategist, EMEA, Microsoft Digital Advertising Solutions*. [interv.] Dean Donaldson. 18 December 2007.

Reuters. 2007. Google Limits Data Retention in Compromise with EU. . *CNBC*. [Online] 12 June 2007. [Cited: 28 December 2007.] <http://www.cnn.com/id/19180753/>.

Rockey, Sharon. 1995. PROfiles. *Multimedia Reporter*. [Online] February 1995. [Cited: 16 December 2007.] <http://www.kenmccarthy.com/archive/articles/profiles.html>.

Schifferes, Steve. 2006. Has the dotcom boom returned? *BBC News*. [Online] 10 October 2006. [Cited: 23 December 2007.] <http://news.bbc.co.uk/2/hi/business/6036337.stm>.

Schrage, Michael. 1994,. Is Advertising Dead? *Wired Magazine*. [Online] February 1994,. [Cited: 27 December 2007.] <http://www.wired.com/wired/archive/2.02/advertising.html>.

Schwartz, J. 2001. Giving the Web a Memory Costs Its Users Privacy. *New York Times*. [Online] 4 September 2001. [Cited: 27 December 2007.] <http://query.nytimes.com/gst/fullpage.html?res=9B0DE1D61639F937A3575AC0A9679C8B63>.

Segal, David. 2006. Annoying floating ads are this guy's fault. *The Washington Post*. [Online] 19 June 2006. http://seattletimes.nwsourc.com/html/businesstechnology/2003070370_btnetads19.html.

Sheff, David. 2000. Crank It Up. *Wired Magazine*. [Online] August 2000.

<http://www.wired.com/wired/archive/8.08/loudcloud.html?pg=5>.

Timmons, Otto. 2004. Banner ads tenth birthday! *Adland*. [Online] 27 October 2004. [Cited: 4 December 2007.] <http://commercial-archive.com/node/114815>.

Various. AOL. *Wikipedia*. [Online] <http://en.wikipedia.org/wiki/AOL#History>.

—. CompuServe: History. *Wikipedia*. [Online] <http://en.wikipedia.org/wiki/CompuServe#History>.

—. Marketing Ethics. *Wikipedia*. [Online] http://en.wikipedia.org/wiki/Marketing_ethics#Delivery_channels.

—. Netscape. *Wikipedia*. [Online] <http://en.wikipedia.org/wiki/Netscape>.

—. Netscape Navigator. *Wikipedia*. [Online] http://en.wikipedia.org/wiki/Netscape_Navigator.

—. Prodigy (ISP). *Wikipedia*. [Online] [http://en.wikipedia.org/wiki/Prodigy_\(ISP\)](http://en.wikipedia.org/wiki/Prodigy_(ISP)).

Weaver, Jane. 1999. Are banner ads' banner days over? *ZDNet*. [Online] 10 March 1999. [Cited: 4 January 2008.] http://news.zdnet.com/2100-9595_22-513964.html.

Wilson, Colin. 2003. Rich Media is Growing Faster and Faster. *iMedia Connection*. [Online] 30 October 2003. [Cited: 31 December 2007.] <http://www.imediaconnection.com/content/2139.asp>.

Wolfe, Gary. 1994. The (Second Phase of the) Revolution Has Begun. *Wired Magazine*. [Online] October 1994. <http://www.wired.com/wired/archive/2.10/mosaic.html>.