

A history of UK companies on the web

Marta Musso, University of Cambridge

Overview

The internet has rapidly and dramatically changed the way in which companies operate, sell and communicate. With the internet even the smallest and most localised business has a potential global reach, and the development of online payment has redefined the selling market in most sectors. Boundaries and borders are being radically re-discussed. However, the fast and dispersed nature of the world wide web makes it particularly difficult to make estimates of the size and growth of a country's economy online.

My research aimed at analysing the impact of the diffusion of the internet on UK companies in the mid to late 1990s. In 2010, the United Kingdom enjoyed the world's largest e-commerce market per capita and the second largest online advertising market;¹ but how did companies react to the arrival of the internet as a tool for everyday life? Using the UK Web Archive as the main source, I investigated a series of questions related to the creation of online space on the part of British companies; in particular, I focused on the 1996-1999 period, a period during which the internet was starting to spread as an everyday life tool, but was not as common and as pervasive as it would become in the following decade.

Through this analysis, I tried to answer the following questions: which were the first companies to 'evolve' to meet the digital world? How many UK-based companies launched their websites in the 1990s, and for which reasons? Which business sectors were the most proactive? I also focused on the creation of digital 'addresses' by UK businesses, from the choice of internet service providers to decisions regarding the domain. In particular, I focused on the choice between the .com domain as opposed to the more 'national' and 'local' .co.uk.

Finally, when possible, I ran a comparison between the archived website (or webpage) in the 1990s and the company's live website today, to see the evolution of the structure and type of content provided. In this last part of the research dedicated to live archives I gathered data on the relations between live websites and social networks.

All in all this research hopes to provide a first reconstruction of the history of the online presence of economic agents in the UK and also to provide a set of data and a methodological framework for further research on the relations between the internet and a country's economic system.

¹ The Boston Consulting Group, *The connected kingdom – how the internet is transforming the U.K. economy*. BCG Report, 2010.

Sources and methodology

To answer the aforementioned questions I used a combination of online archival sources and a more traditional approach. The core of the research was based on the UK Web Archive, which I consulted through the web engines devised by the British Library in collaboration with the Big UK Domain Data for the Arts and Humanities project (AADDA and Shine Version 1.0). A combination of the filters made available through the Shine interface and keyword research was used. In addition, the research has been based on live internet sources, mostly live companies' websites and social networks. The UK Web Archive allowed me to research both single companies' websites, with a selection of 300 companies, and directories listing companies' websites or webpages from the period under consideration. When the domain for a specific website fell outside the scope of the UK Web Archive I analysed it through the Wayback Machine at the Internet Archive (<http://archive.org/web/>). However, the Wayback Machine has a considerable limitation in only allowing research through specific domains.

In order to gain information on the registration of the domain and the registrars used by the companies, I used the WHOIS protocol (<http://who.is/>) to gather information on when a web address was registered and through which registrar (that is, the entity that manages the reservation of the domain names).

I also sent a questionnaire to a selection of 182 companies and 18 business archives in order to collect first-hand memories of the reasons why companies decided to open their websites. When possible, I targeted the marketing division of the company. Without direct contacts within the companies, the response has been very poor (seven answers on 200 dispatches). However, thanks to the diversified nature of the companies that answered (from BP to micro-companies) it was still useful to have a glimpse of the reasoning behind the decision for a company to go online.

Finally, the reconstruction of the debate on the usage of the internet at the time through business newspapers, notably the *Financial Times*, allowed me to have a general idea of the perception of the internet and the expectations of this new tool on the part of the British business world in the mid-1990s.

As I will outline in the next section, the methodology used for this research changed along with the different information that the archived sources and the research filters provided. For this reason I felt it would be more useful not to separate the methodology from the results of my research, but to present how I collected the data together with the conclusions I inferred from the data as I ventured into the internet as a historical source.

The internet and the web in the 1990s

On 28 December, 1996, the *Financial Times* wrote:

Personal computer users without a modem connection to the Internet are likely to feel increasingly isolated over the next 12 months as the rush to get online gathers pace. The Internet has been transformed over the past two years from an academic and computer hobbyist's plaything into a new communications and distribution medium, an online shopping mall and a huge virtual library packed with useful – and useless – information ...²

The *Financial Times* was acknowledging the ongoing shift in the beneficiaries of the internet from academia and computer hobbyists to the general audience. In effect, the internet was being described by a leading business newspaper as a communication and distribution medium, and as a shopping mall. A few days earlier, another article warned that if entrepreneurs did not get online, they could soon lose their business. However, it was not suggested that companies should necessarily be opening 'a big Web site'; using email more effectively could be an equally good strategy.³

Opening a website required the services of professionals. Abracadabra, a website design and hosting company based in Birmingham, charged £250 (around £450 today)⁴ a year for a five-page website. The price included five full HTML pages in colour, storage on a commercial World-Wide-Web server for one year, indexing on the major internet directories, copies of the website on floppy disk to be accessed offline and the emailing of promotional flyers to specialist internet newsgroups that announced the opening of the new website. The price did not include the creation of animations (£150 each), special graphics and logos (£50 each), and the online research for a hypertext 'links' page (from £25 per hour). Extra pages cost £50 each. Weekly email promotion of the site started at £75 per year.⁵

According to the World Bank, in 1996 there were around 2.3 million internet users (defined as people with access to the world wide web) in the UK; this corresponded to 4.1% of the population. The UK ranked 19th in the list of internet users by country,

² Barber, Lionel; Clark, Bruce; Cookson, Clive; Corzine, Robert; Dawkins, William; *et al.*, *Financial Times* [London (UK)] 28 Dec 1996: 09. Accessed through: Cambridge University Library website <https://global.factiva.com/ha/default.aspx#./!/?&_suid=142359373446409079159650146318> [accessed 3 November 2014].

³ Baxter, Andrew, *Financial Times* [London (UK)] 11 Dec 1996: 09. Accessed through: Cambridge University Library website <<http://search.proquest.com/docview/248317715?accountid=9851>> [accessed 3 November 2014].

⁴ This is money, 2015. Price and inflator calculator. [online] Available at: <<http://www.thisismoney.co.uk/money/bills/article-1633409/Historic-inflation-calculator-value-money-changed-1900.html>> [accessed 15 February 2015].

⁵ Abracadabra Internet Publishing, <<http://web.archive.org/web/19961222185552/http://www.netlink.co.uk/users/abracad/prices.html>> [Internet Archive, site captured 22 Dec. 1996].

after parts of Northern Europe, North America and Japan.⁶ However, forecasts predicted that home connection would rise more than tenfold in the following ten years around Europe.⁷ Lycos, an American search engine and web portal founded in 1994, had indexed approximately 1 million URLs (unique web addresses) by 1996. Commercial websites were growing faster than any others.⁸

As the UK Web Archive preserves websites with a .uk domain and the research focused on UK-based companies, I tried to gather data on the general dimension of the internet in the 1996-1999 period, and the distribution percentage of .com (the most common top-level domain for commercial websites) and .uk domains. The Internet Archive preserves the statistics provided by the Internet Service Provider Network Wizards on Internet Hosts, calculated according to their distribution by domain. In July 1996, the company had calculated the existence of 12.8 million hosts. .com was the most used top-level domain, with 3.3 million (29% missed domains), followed by .edu and .net; .uk was in fourth place, with roughly half a million .uk domains (14% of missed domains).⁹ By July 1999 the number of hosts had risen to 43 million, of which 1.4 million were from the .uk domain.

	ALL HOSTS	.COM	.UK
1996 ¹⁰	12,880,699 (23%)	3,323,647 (29%)	579,492 (14%)
1997 ¹¹	19,540,325 (25%)	4,501,039 (29%)	878,215 (24%)
1998 ¹² (missed hosts percentages not	29,669,611	8,201,511	987,733

⁶The World Bank, 2015. Internet users (per 100 people). [online] Available at: <http://data.worldbank.org/indicator/IT.NET.USER.P2?order=wbapi_data_value_1996+wbapi_data_value&sort=desc&page=3> [accessed 15 February 2015].

⁷ Denton, Nick, *Financial Times* [London (UK)] 17 Dec 1996: 09. Accessed through: Cambridge University Library website

<<http://search.proquest.com/docview/248294593?accountid=9851>> [accessed 3 November 2014]. By 2006 68.8% of UK population had access to the internet. The World Bank, 2015.

Internet users (per 100 people). [online] Available at:

<http://data.worldbank.org/indicator/IT.NET.USER.P2?order=wbapi_data_value_1996+wbapi_data_value&sort=desc&page=3> [accessed 15 February 2015].

⁸ Advanced Internet Services, Internet Statistics, <<http://www.u-net.com/bureau/net/stats.htm>> [Internet Archive, site captured 19 Dec. 1996].

⁹ Network Wizards, Host Distribution by Top-Level Domain Name, <<http://web.archive.org/web/19961112173839/http://nw.com/zone/WWW/dist-bynum.html>> [Internet Archive, site captured 12 Nov. 1996].

¹⁰ Network Wizards, Host Distribution by Top-Level Domain Name, <<http://web.archive.org/web/19961112173839/http://nw.com/zone/WWW/dist-bynum.html>> [Internet Archive, site captured 12 Nov. 1996]; 10 Dec. 1997; 19 Apr. 1998].

¹¹ Network Wizards, Host Distribution by Top-Level Domain Name, <<http://web.archive.org/web/19971210230107/http://www.nw.com/zone/WWW/dist-bynum.html>> [Internet Archive, site captured 10 Dec. 1997].

¹² Network Wizards, Host Distribution by Top-Level Domain Name, <<http://web.archive.org/web/19980419090517/http://nw.com/zone/WWW/dist-bynum.html>> [Internet Archive, site captured 19 Apr. 1998].

given)			
1999 ¹³ (missed hosts percentages not given)	43,229,694	1,2140,747	1,423,804

Among these 1.4 million .uk domains, how many were British companies' websites? And how many were among the .com and other top-level domains (.net, .org. etc)? According to Companies House, the United Kingdom's registrar of companies, there were 1.03 million active registered companies in the fiscal year 1995-1996 in Great Britain (Northern Ireland joined the register in 2009-2010); 1.09 million in 1996-1997, 1.18 in 1997-1998, and 1.28 million in the 1998-1999 year.¹⁴ However, the number of companies that had already invested in the creation of an online presence must have been much smaller. In particular, I wanted to focus on companies whose business was not necessarily based on the internet (such as internet service providers, web-design specialised companies). However, I wanted to look at how other businesses reacted to the spread of online communication and the world wide web in particular.

Companies' websites

As the UK Web Archive holds the top-level .uk domains only, one of the questions to keep in mind was the likelihood of British companies choosing a .uk domain over the fast-spreading .com domain. At first, I started with a list of British companies active in the 1990s and I looked at whether they had already opened a website in the 1996-1999 period, trying to sample between large, small and medium enterprises. I decided to gather the following information:

- Name of the company
- Acquisition: changes in name compared to the present
- Web address in the period 1996-1999
- New live address (if different)
- Domain
- New domain (if different)
- Business sector
- Physical headquarters
- International offices (when operative in other countries)
- Contact email (to send the questionnaire)
- Size (expressed in number of employees: fewer than 10 people – micro; between 11 and 50 people – small; between 51 and 250 people – medium;

¹³ Network Wizards, Host Distribution by Top-Level Domain Name, <<http://web.archive.org/web/19991128024710/http://nw.com/zone/WWW/dist-bynum.html>> [Internet Archive, site captured 28 Nov. 1999]

¹⁴ Companies House, *Historical Data 1939 to Date*.

between 251 and 1000 people – large; more than 1000 employees: very large)

- Listed on the London Stock Exchange (from the 1999 LSE list)
- Year company established
- Year domain registered (from who.is)
- Registrar (from who.is)
- Registrar's country
- Website description: brief outline of the content and organisation of the website
- Year website opened (when certain – otherwise between a year range)
- Number of crawls
- Date of the first crawl
- Date of the last crawl
- Live website
- Differences between live and archived website
- On live websites, link to social networks

Unless otherwise stated, all information has been gathered from the archived or live version of the websites.

This table allowed me to collect data of three different types. First of all, on the evolution of company's website: when they were open compared to the establishment of the company itself, their content, the difference between the archived and live versions, their relation to social networks. The changes in addresses and in title also allowed partial reconstruction of the history of the company, through mergers, evolution, or disappearance from the web. Second, the data allowed collection of information on the online space as built by the companies in relation to their physical headquarters, through the choice of domains, of content, and of registrar (in particular, whether they preferred a local UK registrar or a foreign one). In the third instance, the data allow the study of the presence of the single company's website on the UK Web Archive (or Internet Archive): the number of crawls in which the site appears and for which date range.

Initially, I looked at the first 30 British companies listed on the London Stock Exchange in 1999, the oldest period available online.¹⁵ I also checked the companies with a business archive,¹⁶ which in the great majority of cases were also on the London Stock Exchange, with the exception of Bank of England and Opta Sportdata.

With a current sample of a further 250 companies randomly selected thanks to web directories and keyword research on the AADDA and SHINE Version 1.0 web engines

¹⁵ London Stock Exchange, 2015. Reference and historical data. [online] Available at: <<http://www.londonstockexchange.com/products-and-services/reference-data/reference-data.htm>> [accessed 10 July 2014].

¹⁶ The National Archives, 2009. *Corporate Memory. A guide to managing business archives*. [pdf]. Available through: The National Archives website <<http://www.nationalarchives.gov.uk/documents/information-management/corporate-memory.pdf>> [Accessed 10 May 2014]

(see next section), one can draw some first conclusions on a small but varied sample of UK companies' websites. There is an imbalance in the number of .uk websites in the data, because of the collection policy of the UK Web Archive. However, of the 288 websites analysed, almost half had a .com domain, against 94 with .co.uk and 46 .plc.co.uk. The changes in address and the more recent website addresses show an overall tendency to switch to a .com domain and to simplify the address altogether (.net rather than .net.uk or .uk in place of .plc.uk). As for the registrars, half of the websites were created through a British website, around 70 with an American one and the rest from Canada or Germany. When analysing the larger companies, there is a slight preference towards US registrars. Apart from SmithKline Beecham, which merged in 1998 with Glaxo Wellcome, all companies quoted on the London Stock Exchange registered their websites between 1989 (BP and Shell) and 2004 (Opta Sports). However, the peak of registration was before or during 1996, with the rest of registrations occurring in 1997 or 1998 at the latest.¹⁷ With some exceptions, only the older and larger companies analysed registered their websites before 1996, usually between 1994 and 1995. The rapid increase in registration, as testified by the previously reported data on hosts, occurred between 1996 and 1997. Finally the questionnaire, though it only provided seven answers from 200 companies contacted, provided a few interesting statements on the different reasons for opening a website. For example Barter's Books Ltd., a second-hand retail store, had already opened its website in 1995 as 'a natural area for antiquarian bookshops, which now had a worldwide potential market (appendix documents). By contrast, the multinational oil company BP acquired the domain bp.com as early as 1989 in order to make sure no one else could use it. However, the website in its modern form was only standardised in 2001-2002 to put a stop to the proliferation of uncontrolled BP webpages on the part of local subsidiaries or offices and to coordinate online communication strategies.

Directories and lists

Despite giving a snapshot of web space through time, these data were too scattered and partial to be meaningful. Smaller companies were harder to identify by name and the research would be too partial if conducted on the premise of analysing single websites. Furthermore, the time required to work on the information provided by single websites did not allow me to acquire a large enough sample within the scope of this project.

The possibility of running research using keywords was fundamental to gathering some quantitative data on companies' websites for the time range 1996-1999. All of the companies' websites analysed included one or more of the words: 'COMPANY', 'ENTERPRISE', 'BUSINESS' and 'CUSTOMER'. I took into account all .uk domains that were not clearly commercial, excluding .gov.uk, .police.uk, .nhs.uk etc., but

¹⁷ It is impossible to reconstruct the precise moment in which the website was launched online, but apart from a few cases pertaining to mergers and acquisitions, the first crawl of all websites in the Internet Archive is dated no later than a few months after the domain registration indicated by who.is.

considering all the others. From 1996 to 1999 for example, searches for the word 'COMPANY' gave me the following results:

1996	co.uk	73
	org.uk	11
	net.uk	2
	ltd.uk	1
1997	co.uk	50
	org.uk	49
	net.uk	8
	ltd.uk	6
	icnet.uk	2
1998	co.uk	51
	org.uk	51
	net.uk	10
	ltd.uk	17
	icnet.uk	2
	plc.uk	6
1999	co.uk	51
	org.uk	51
	net.uk	20
	ltd.uk	41
	icnet.uk	2
	plc.uk	10

A sample search through this crawl showed that most of the websites were companies' websites, which made it a useful tool. Unfortunately though, the quantity of domains crawled showed an overall diminution in 1998 and 1999 compared to 1996 and 1997. This could be due to the fact that the crawls diminished, but it also shows that this method was useful because it highlighted companies' websites, but it was also very partial, leaving aside many others. Furthermore, apart from the obvious names (such as amazon.co.uk), it was impossible to determine whether a company was based in Britain or simply the British branch of a foreign company that chose the .uk domain for the local website (though the division of websites in local domains does not seem to be a common practice for this period. In fact, apart from yahoo.co.uk and amazon.co.uk I did not find any other examples).

This method, however, allowed me to find the most precious resource for my research. A keyword search for "company" and "online shopping" returned websites that were not companies' websites but were mostly directories, lists of UK companies' websites that claimed to be more or less complete. This passage from the *Financial Times* article mentioned earlier was enlightening:

For the moment, e-mail and the electronic chat rooms of the commercial online services such as CompuServe and AOL remain the main reasons why

consumers are buying modems and going online. However, powerful search engines such as Yahoo! and AltaVista allow the ordinary PC user to find information on the World Wide Web on anything from an apple pie recipe to scientific data about the climate of the south Pacific. The case for buying a modem will become even more compelling in 1997. Banks are preparing online services that will enable consumers to conduct much of their banking business from their home PCs. Consumer companies such as Virgin are preparing to launch Internet services with value-added features such as homework help for schoolchildren and teachers' notes. Other companies are already 'broadcasting' news over the Internet¹⁸

I realised I had to think of an internet without Google and with much less sophisticated search engines; of the world wide web as a network in which human-made networks linking to each other's content were fundamental. In fact, advertising a website on directories was part of the paid service offered by the web design company Abracadabra mentioned above.

Instead of looking for companies' websites, I started to look for directories on UK business, through keyword searches such as "UK COMPANIES DIRECTORY" "LIST OF UK COMPANIES" "LIST+UK+COMPANIES".

The directories found through the search engines were extremely diverse. For example ABPI (the Association of British Pharmaceutical Industry) gave a list of 94 members in 1996. Of these, only 14 companies had a website, and only two companies were actually British.¹⁹ 'Ability', a charity for the rights of disabled people, put online a list of 1,178 companies that could be suitable for disabled people to work for.²⁰ Different companies, such as consultancy firms or internet service providers, had an extensive list of clients.²¹ The most important and cited directory at the time seemed to be The UK directory, a list of 8,600 URLs divided by category, among which was 'Business'.²² However, the largest directory found came from Waternet, a company specialising in delivering water supplies to offices. In 1999, they published a list of 15,834 URLs which they claimed to be a complete list of UK companies' websites with a .co.uk address²³. Unfortunately, most of these links

¹⁸ Barber, Lionel; Clark, Bruce; Cookson, Clive; Corzine, Robert; Dawkins, William; *et al.*, *Financial Times* [London (UK)] 28 Dec 1996: 09. Accessed through: Cambridge University Library website <https://global.factiva.com/ha/default.aspx#!?&_suid=142359373446409079159650146318> [accessed 3 November 2014].

¹⁹ABPI, List of member companies 1995-1996, <<http://web.archive.org/web/19961023052832/http://www.abpi.org.uk/abpimem.htm>> [Internet Archive, site captured 23 Oct. 1996]

²⁰ Ability, ENTREPRENEURS, <<http://web.archive.org/web/19961023170530/http://www.ability.org.uk:80/enterepr.html>> [Internet Archive, site captured 23 Oct. 1996]

²¹ See for example Yacc.co.uk with the British Index or Oxford Community Internet PLC.

²² UK directory, <<http://web.archive.org/web/19961219105803/http://www.ukdirectory.com/>> [Internet Archive, site captured 19 Dec. 1996]

²³ Waternet, UK Companies on the web, <<http://web.archive.org/web/19990219194117/http://www.water.net.uk:80/ukcompanies/>> [Internet Archive, site captured 19 Feb. 1999]

were not crawled and therefore it is impossible to check their accuracy. Furthermore, without the surviving website it is sometimes impossible to separate links to a website proper and links to information about a company provided by third parties. Other potentially interesting directories, such as that of Communicata Media for a list of electronic companies were unfortunately not crawled at all.²⁴ However, this system is nonetheless useful to gain an idea of how many websites belonging to companies could be found online in the second part of the 1990s.

It is interesting to note that by the year 2000 most of these directories had been cancelled or were not updated anymore; sophisticated and automated search engines such as Google had by then changed the way in which people found information on the internet. The directories still looked like telephone books or encyclopedias: one letter per page, in rigorous alphabetical order, to be consulted like any other guide, but in HTML rather than on paper. Many of these directories were meant to provide a more general guide to how to use the internet. For example, computer consultant Delia Venables, while providing a list of solicitors and barristers online, suggested how a lawyer should use the internet, from checking the news on *The Times* when s/he woke up to having a look at the UK Parliamentary Site and the BBC Weather page.²⁵

Companies online and the creation of a commercial space

As the *Financial Times* article quoted at the beginning of this report explains well, the internet developed as a commercial space especially thanks to the development of the world wide web. Among the suggestions on how to use the internet provided by the aforementioned directories, the most interesting were the ones reflecting on how companies should exploit the web for their business. At the beginning of the development of the internet as a commercial space, the arrival of advertising caused some protest. It is now acceptable to have most of the services provided on the world wide web free in exchange for advertising. However, at the time the internet was perceived more like a phone call. In fact, not only was being connected online paid for like any other phone call, but before the development of the web the internet was mostly about chats, newsletters, discussion groups, and most of all emails: private or semi-private means of communication.

This is a quotation from a guide to online marketing by an internet service provider:

[The Internet] can become potentially most things to most men – a bit like the motor car. We all value its convenience but probably all are a bit dismayed at

²⁴ Companies on the Web,
<<http://web.archive.org/web/19970226212843/http://alpha.sru.org.uk/lookover/electronics/company.html>> [Internet Archive, site captured 26 Feb. 1997]

²⁵ Delia Venables, Around the World in 80 Minutes. A New Tour of the World Wide Web for Lawyers,
<<http://web.archive.org/web/19981206165553/http://www.venables.co.uk/legal/tour.htm>> [Internet Archive, site captured 6 Dec. 1998]

the environmental damage it has done. With the Internet one of the most potent potential causes of divergence of interest is the use of the Internet for advertising ... The Web is also the first frontier on the Internet that has actually embraced marketing. Until recently, marketing your services on the Internet was a major taboo. Anyone caught advertising their services through the Internet would have been 'flamed.' Flamed means you would receive thousands of nasty E-mail messages from disgusted Internet users. This would probably jam your system or even lock up your E-mail box. But now, not only is marketing accepted on the Web, but it is also making the Web the fastest growing portion of the Internet.²⁶

With the development of the internet, commercial emails sent around like flyers were going to become obsolete. The world wide web could provide terrific opportunities for companies, especially smaller businesses, who could count on a 'virtual headquarters' as elegant and visible as any large multinational; and those offices could stay open 24 hours a day to provide information to potential customers. The web flattened the costs of communication, completely cutting the costs of traditional mailing and printing methods. It also allowed for direct sales of products, and last but not least, it allowed competitive tracking, giving opportunities even to the smallest businesses to gather information on what their competitors were doing on a local as well as international level.²⁷

However, in order to advertise a company's online presence and enjoy the democratisation of the virtual space, companies needed to adopt a new approach to advertisement. If flyers in mailing lists were compared to environmental damage, the only way to make one's website visible on the internet was to attract viewers, creating a space where customers and consumers would want to go back. The best way of doing it, suggested the selling guide, was by providing information and entertainment, possibly with a multimedia approach. In fact, many of these websites provided services like the time, the weather, newsfeeds, stories, and various information only loosely related to their business (for example, health advice on pharmaceutical websites). To an extent, although to a lesser degree now that advertising has developed on social networks and online media, companies' websites still provide some of these services. Interactivity was, and is, another key resource: online forms, market research, surveys and promotional competitions were already present on these websites.

Naturally, it was also fundamental to link the website to the directories available so that it would be accessible from other websites. It is interesting to note that this was a more democratic listing than search engines or sponsored links (though many of

²⁶ Selling on the Internet,
<<http://web.archive.org/web/19980523214839/http://www.u-net.com/ukcom/sell/selling.htm>> [Internet Archive, site captured 23 May 1998]

²⁷ Selling on the Internet,
<<http://web.archive.org/web/19980523214839/http://www.u-net.com/ukcom/sell/selling.htm>> [Internet Archive, site captured 23 May 1998]

these directories asked for money in order to be included in the list); it was an approach based on peer-to-peer links.

Apart from advertising, the second main reason to go online was to be able to open what was to become the largest shopping mall in the world. Today Britain has embraced the commercial internet and in 2010 it was the largest per capita ecommerce market in the world;²⁸ however, at first online sales struggled to take off. 'Shopping over the Internet has failed to take off' – wrote the *Financial Times* in December 1996 – 'partly because of doubts about the security of credit card information ... Research, business, chat and entertainment are far more popular uses of the network'.²⁹ However in three years, by October 1999, the situation had radically changed. The *Financial Times* reported that shoppers had spent £2 billion in the previous twelve months, a tenfold increase compared to 1998.³⁰ The UK directory for secure online stores listed 178 stores in February 1999³¹ and 252 in May,³² ranging from auctions to travel sites to games. In the websites I analysed there is a slight prevalence of bookstores. The identikit of the perfect UK buyer was as follows: 'if you have a product or service whose typical buyer could be described as upper income, educated, and between the ages of 25 and 35, you should seriously consider marketing your business on the World Wide Web'. However, from the sample websites the oldest companies to launch internet sales seemed to be Tesco and Sainsbury, in 1997, through an online form to fill in and then pay on delivery.³³ The UK branches of Amazon (www.amazon.co.uk) and Ebay (www.ebay.co.uk) also arrived fairly early, in 1998. It would be beyond the scope of this research to run an in-depth analysis of the relations between UK enterprises and the two largest online shopping centres (both US companies); however, it is interesting to notice that amazon.co.uk was established through the acquisition of Bookpages (www.bookpages.co.uk), one of the largest online bookstores in the United Kingdom.³⁴

²⁸ The Boston Consulting Group, *The connected kingdom – how the internet is*.

²⁹ Denton, Nick, *Financial Times* [London (UK)] 13 Dec 1996: 09. Accessed through: Cambridge University Library website
<<http://search.proquest.com/docview/248333844?accountid=9851>> [accessed 3 November 2014].

³⁰ Price, Christopher, *Financial Times* [London (UK)] 02 Oct 1999: 03. Accessed through: Cambridge University Library website
<<http://search.proquest.com/docview/248886545?accountid=9851>> [accessed 3 November 2014].

³¹ Welcome to the UK's fastest growing directory of SECURE online stores,
<<http://web.archive.org/web/19990202161526/http://www.internetics.co.uk/shop/>>
[Internet Archive, site captured 2 Feb. 1999]

³² Welcome to the UK's fastest growing directory of SECURE online stores,
<<http://web.archive.org/web/19990508182154/http://www.internetics.co.uk/shop/>>
[Internet Archive, site captured 8 May 1999]

³³ Hollinger, Peggy, *Financial Times* [London (UK)] 28 Dec 1996. Accessed through: Cambridge University Library website
<<http://search.proquest.com/docview/248305200?accountid=9851>> [accessed 3 November 2014]

³⁴ This is money, 2015. Price and inflator calculator. [online] Available at: <<http://phx.corporate-ir.net/phoenix.zhtml?c=97664&p=irol-newsArticle&ID=233853&highlight=>>> [accessed 1 December 2014].

As a final note, all websites, whether or not they had an online store, were organised by mimicking physical commercial spaces. The homepage corresponded to an entrance door, often accompanied by animation and sounds, followed by a menu that asked, like a virtual clerk, how it could be useful. Apart from that, websites tended to have very basic layout of text (which is very long text by today's standards) and images, just like any other brochure.

Conclusion

Attempting to define web space, especially in the past, is a very difficult task. In fact, studies on the size and composition of the internet allow for a large margin of error. The UK Web Archive allowed me to gather a good first set of information on the quality of companies' websites, their relations to directories and the rest of the internet and the world wide web. It also allowed me to gather a first set of information on the quantity of these website, although for the scope of the project it had to be necessarily constrained.

Most importantly, the analysis of the arrival of companies' websites allows the study of the more general evolution of the internet, with the diffusion of the web and the shift from a private means of communication, almost an extension of the telephone and the fax, to a public space, a virtual reality in which everyone could have access to every space and which quickly filled up with malls and windows to showcase a company's products or activities. In parallel to the commercialisation of web space, the world wide web also became more and more a space of work rather than leisure. In fact, the space built by companies was not just for advertising or selling, but for showcasing their work and their strategy. While much more work will be required to have a more general idea of companies' online space and its evolution, this research provides a first set of data and reflections and a methodological framework in which this kind of study may operate.