

INTERNET COMMUNICATIONS

Dr David Gauntlett and Dr Drew Whitworth

This module aims to provide students with an introduction to the ways in which the internet is changing the field of communications. The course will focus in particular on the World Wide Web and the ways it is used by individuals and organisations to reach people, disseminate information, share interests, advertise products or promote causes: to *communicate*, in other words. To give you a proper engagement with Web culture, and to provide you with valuable practical skills, you will also learn how to design and make your own website, and put it on the World Wide Web.

There are 18 lectures, two seminars, and weekly practical sessions. This module guide explains the teaching and the assessment, plus reading, software, long words, and more.

See the module website for resources and links: www.newmediastudies.com/module
Web-building guide at: www.leeds.ac.uk/acom/html

— THE LECTURE SERIES —

There are eight lectures on web culture (A1–A8) and ten lectures on web building (B1–B10).

MONDAYS, 2.00–3.00, in LT15: Mostly <i>WEB CULTURE</i>	
28 Jan	A1. Introduction to module & the Web
4 Feb	A3. Money & the Web; Who runs the Web?
11 Feb	A4. Virtual communities & personal sites
18 Feb	A5. Web cultures, & self-identity
25 Feb	A6. Activism on the Web
4 Mar	A7. Good sites, bad sites
11 Mar	A8. Web controversies; The future.
18 Mar	B7. Frames.
22 Apr	B9. Other tricks.

THURSDAYS, 12.00–1.00, in LT12: Mostly <i>WEB BUILDING</i>	
31 Jan	A2. Who uses it?; Some uses of the Web
8 Feb	B1. Introduction to Web building
15 Feb	B2. What is HTML?
22 Feb	B3. Text, colours, and formatting.
1 Mar	B4. Links. Turning pages into a Web site.
8 Mar	B5. Images.
14 Mar	B6. Tables and page layout.
21 Mar	B8. Uploading your website.
25 Apr	B10. Design tips. Coursework review.

The module is assessed by submission of a written review of a website, or related websites, by 22 March 2002 (33%), and your own website, plus an accompanying text, by 13 May 2002 (67%).

YOUR QUESTIONS ANSWERED

What is this module about?

See the statement on the front sheet.

On completion of the module, you should be able to:

- (1). critically assess the usefulness, value and design of websites, making judgements informed by knowledge of what is possible on the World Wide Web, and common standards of good practice.
- (2). produce a website to a reasonable basic standard.
- (3). demonstrate knowledge of internet practices, standards, laws and technologies.

How is it taught?

To complete the module you should attend the 18 lectures (two per week for nine weeks) and two seminars (one at the start of teaching, and one near the end). There will also be a practical session in the multimedia room each week, with assistance available.

Am I expected to know all about the internet already?

No. This is a 'for beginners' module. If you are confused about anything, ask us.

What happens in the lectures and seminars?

The lectures give you lots of essential information. This isn't a course where you can 'catch up' by getting a book from the library – it's all too new and changing; and the skills are best learned by watching live demonstrations. The seminars are so that David can meet you and we can discuss your experiences of the internet, and some of the issues. They're essential too.

THE LECTURES:

— In the '**A**' lectures (mostly Mondays – see front page), **David Gauntlett** will discuss the social impact of the internet and Web culture. We will also consider the purpose and quality of several websites, and design issues, all of which will be significant when you come to create your own site.

— In the '**B**' lectures (mostly Thursdays – see front page), **Drew Whitworth** will guide you through the nuts-and-bolts of how to create your own website.

THE SEMINARS: With **David Gauntlett**. The first seminar, at the start of the course, discusses your previous experiences with the internet, and your ideas for it. The second seminar, towards the end of teaching, concerns your experience of building a website within this module.

ATTENDANCE IS ESSENTIAL (except, as usual, in exceptional cases such as illness or compelling personal reasons, in which case please inform the relevant tutor).

THE JOY OF E-MAIL

Send questions, concerns and comments about the module to David Gauntlett —
david@theory.org.uk.

HTML / WEBSITE QUESTIONS

Send questions about the web-building project to Drew Whitworth —
drew@comp.leeds.ac.uk.

What happens in the practical sessions?

The practical sessions, in the ICS multimedia room [or it may be a cluster], give you the opportunity to explore and study the Web, and work on your own website, at a time when the *Internet Communications* advisor **Ross Horsley** is around to help you. You can help each other, too, of course. You can work in the ICS multimedia room at other times (subject to availability), of course, but the timetabled practical sessions are times when the room is reserved for you and you can get help and advice – so do attend them. The room is booked for Tuesday, Wednesday and Thursday, 9.00–11.00am, each week, for exclusive use of students taking this module. You have to sign up for *one* of these sessions, and attend it each week.

Don't know what to do in the computer room? — See the COMPUTER ROOM TASKS box on page 8.

When are your office hours?

David Gauntlett's office hours are Monday 3.10–4.30pm, and Thursday 4.00–5.00pm. (His office is in the ICS Undergraduate Centre). These office hours are when you can drop in to talk about your work or anything else.

Drew Whitworth's office hours are Mondays 11.00–12.00. (His office is EC Stoner 7.10h - go down Staircase 1 off Red Route to Level 7 (the ground floor) then through the door which says "No Exit" — 7.10h is down there).

[Module information continues on next page→]

Some useful websites to get you started

See the module website for links:
www.newmediastudies.com/module

Yahoo! www.yahoo.com

The most popular and comprehensive Web directory.

The World Wide Web Consortium:
www.w3.org

Lots of useful basic (and advanced) information about the World Wide Web, with Tim Berners-Lee's interesting Frequently Asked Questions page at www.w3.org/People/Berners-Lee/FAQ.html.

Wired News: www.wired.com/news

Daily articles about internet developments, regulations, and innovations, with an excellent searchable archive where you can find an article on anything Web-related.

A Brief History of the Internet and Related Networks:

www.isoc.org/internet/history/cerf.html

Short history of the internet by Vint Cerf.

Resource Center for Cyberculture Studies:
www.com.washington.edu/rccs

Lots of 'cyberculture' resources.

Web Pages That Suck:

www.webpagesthatsuck.com

The good but smug Web design guide.

BBC Online: www.bbc.co.uk

The BBC's impressively full, well-built public service site.

gURL: www.gurl.com

Cool women-oriented fun website.

Spark: www.spark-online.com

Lovingly designed online pop culture magazine.

World Wide Arts Resources: <http://wwar.com>

Gateway to arts information and culture on the Internet including artists, galleries, art history, and education.

NME: www.nme.com

The NME's very comprehensive site - good on proper pop stars as well as 'indie' misérables!

Smash Hits: www.smashhits.net

The colourful alternative.

Am I Hot or Not?: www.hotornot.com

Online phenomenon where you rate people for attractiveness. Simple and oddly addictive.

The Internet Movie Database: www.imdb.com

Huge site where everyday moviegoers review movies. The site also contains a wealth of factual information.

Electronic Frontiers Foundation: <http://eff.org>

Site of the best-known cyberspace civil liberties organisation.

McSpotlight: www.mcspotlight.org

Well-known site which was established to provide information about London's famous McLibel trial, but grew to be a huge international anti-corporate resource centre.

Uboot: www.uboot.com

Text message and chat community - send texts for free! Flirt pointlessly with strangers!

SneakerNation: <http://sneaker-nation.com>

Obsessed with footwear.

And from our own correspondents...

New Media Studies:
www.newmediastudies.com

The website for the study of new media, with articles, reviews, web design and marketing guides, web arts, and more.

Theory.org.uk: www.theory.org.uk

Media, gender and identity resources.

International Film: www.internationalfilm.org

Site about the world of international film 'directed' by our own Graham Roberts.

ASSESSMENT

How is the module assessed?

You will be assessed on two separate components. Make sure you study these details:

- (1). A written review of a website, or related websites (1,500 words), to be submitted by 12.30pm on Friday 22 March 2002.**
— This component is worth 33 per cent of your overall module mark.

You could review one website in depth, or up to four different but related websites in comparison with each other. For example, you might comparatively discuss the websites of the BBC, ITV, Channel Four and Sky. Or the websites of three different bookshops, universities, or pop stars. Or a comparative discussion of Britney Spears fan sites, or *Star Wars* fan sites, or whatever. The reviews of websites should not focus on *what a website is about*, but rather should discuss *how it goes about doing what it does*, whether it is successful, and ways in which it could be improved.

- (2). A website of at least five pages, containing at least one graphic design/logo and at least 1000 words of text. This should be accompanied by a short written account of the website's design and purpose (500 words). Printouts of every page of your website, and this account, should be submitted by 12.30pm on Monday 13 May 2002.**
— This component (the website and the short written piece together) is worth 67 per cent of your overall module mark.

IMPORTANT NOTES:

Your own website will be assessed in accordance with the ICS marking criteria for practical training courses. Therefore, highest marks will be awarded to websites which exhibit the following features:

- Well designed, well organised, and user-friendly pages;
- Good command of relevant technical terminologies (in your accompanying text);
- Full (and creative) command of conventions and formats;
- Excellent grasp of web production techniques;
- Capacity for adopting original approaches to web formats;
- High production values, professionally packaged.

The website can be *about* anything you like (but should have one coherent theme). If you're stuck for ideas, consider making a site about a hobby or interest, a political cause or campaign, or a favourite band or movie director. The content of your site doesn't need to be 'academic'. Your mission is to create a good, interesting, well-designed site which Web users would find valuable.

Your site can be created 'locally' at first – i.e. saved on your personal disk space only – but at some point between when you start making it and May 13th, you should upload it to a place where anyone can access it on the Web. You'll be told how to do this in lectures. You will therefore be able to maintain and update your site *after* this module has finished, if you want to.

"At least five pages" means there must be five or more HTML files (webpages). The text must be your own work, not just your favourite Westlife lyrics. The "at least 1,000 words" can be spread across all your pages – you don't have to include a 1,000 word essay on one page.

The account of the website's design and purpose should show an awareness of how your website has a place within broader discussions about web cultures.

Is the *presentation* of my assessed work important?

Presentation is extremely important. Carefully note these essential instructions:

- It is strongly recommended that you produce your written work on a word processor. It is professional and smart, and an invaluable skill to have for the rest of your time at university, and beyond. However, *very neat and legible* handwritten work is also allowed for part (1) of the assessment, and for the written account in part (2). Messy and/or illegible handwritten work is the worst of all worlds, and will not be accepted.
- Pictures and illustrations will enhance the appeal of your work (as would diagrams showing how you planned your website for part (2) of the assessment).
- Your written work must contain *references* listing every book, article or website consulted. The free handout 'ESSAY-WRITING: THE ESSENTIAL GUIDE' explains how to do references, and offers lots of other writing tips. It is available from the ICS Undergraduate Enquiries office, or from the ICS website (→ Information → Study skills).
- If you use internet references in essays, you must give a full reference for each one, just as you have to for books, articles and other texts. Give the author, title, internet address (URL), and date visited. If you can't identify an individual author, use the name of the organisation, e.g. 'The Onion (1999), "Aliens Demand More Positive Portrayal in the Media", http://www.theonion.com/onion3524/aliens_portrayl_media.html, accessed: 24.1.02.'
- Keep a copy of all work submitted, because assessed work is not returned to you, and you might want to look back at it in the future, and/or the one copy you handed in may be destroyed by bugs from an alternative dimension, or something. So keep copies of everything.

How do I hand in my assessed work?

The assessed work must be placed in David Gauntlett's essay box (the 'posting cabinets' with letter-box slots, not the staff pigeonholes) in the ICS undergraduate centre by the deadlines specified above. You must complete the standard 'Declaration of Academic Integrity' form available in the centre, certifying that your work is not plagiarised, and attach it to the front of your essay before posting it.

Why do you want a *printout* of my website?

The University has to keep a paper record and archive of all of your assessed work. So it's essential for that reason. (A related point is that your work has to be completed by a certain deadline, which for marking purposes is the final product. So we have to have a fixed thing to mark, not a website which you can change every day, before and after the deadline).

Nevertheless your actual website will be visited during the marking process – we don't just look at the printouts.

READING

Is there a good book to buy for this course?

For a general introduction to the Web, including some basic material on how webpages are put together, and lots of other useful information, there is *The Internet: The Rough Guide* by Angus J. Kennedy (Rough Guides, 2001 edition: £6). This year it has an owl on the front. Last year it was monkeys. It must all mean something.

If you want a simple guide to creating your own web page, there is the appropriately titled *A Simple Guide to Creating Your Own Web Page* by Michel Dreyfus (Prentice Hall, 2000, £7.99), which tells you all about using HTML (the basic language which webpages are arranged with) to create your own site.

If you want a book with a range of information and discussion about Web culture, there is **Web.Studies** (2000), edited by your very own David Gauntlett, which has 24 different chapters about all aspects of internet life, and some pictures! (Arnold, £14.99). Information about it, and the first chapter, are available on the Web at www.newmediastudies.com/book. Here's the blurb from the back cover:

The World Wide Web has transformed the media landscape. This exciting, engaging and accessible book, written by scholars from the USA, Europe and Australia, explores the ways in which people, organisations and companies are using the Web to assert themselves in the world, and build communities of communication. This is the first book to offer students a comprehensive and coherent introduction to the new Web-based media culture.

Beginning with an introduction to the Web and how it works, followed by the theories and methods of cyberculture studies, *Web.Studies* moves on to consider everyday Web life, art and culture, Web business, and global Web communities, politics and protest. Topics covered range from personal and fan websites, cyber-sexualities, webcams and Web-based art and entertainment, to global capitalism and the fight for Web domination, cybercrime, and internet propaganda. Uniquely, the book combines studies of the Web's artistic and creative possibilities with political, economic and international perspectives. Each chapter includes suggestions for ways in which students can use the Web to further their own research; there are also illustrations, lists of useful websites, a glossary, and a bibliography.

David Bell's *An Introduction to Cybercultures* (Routledge, 2001) offers some more philosophical discussions of the meanings of cyberspace.

If you are really into Web design, *Web Pages That Suck* by Vincent Flanders & Michael Willis (Sybex, 1998) is good, but it costs £30, so you will probably prefer to look at the library copies and the website (www.webpagesthatsuck.com).

Warning: don't just buy any old book, as there are a lot of dodgy cash-ins in this area. For example, there's one called *Teach Yourself The Internet for Students*, by Chris Wright (1999), which you might think has a promising title. But it's a bit of a waste of paper.

You'll find some reviews of internet-related books, including introductory ones, at www.newmediastudies.com (→ reviews → books).



And in the library?

Here's some other useful books which we got the library to buy multiple copies of:

- Flanders, Vincent & Willis, Michael (1998), *Web Pages That Suck: Learn good design by looking at bad design*, Sybex, California. — Good web design book. (Library has two copies on Counter Collection (B2179, B2184), two copies on Student Loan, one Reference copy, and another one).
- Bell, David (2001), *An Introduction to Cybercultures*, Routledge, London. — A thoughtful introduction to 'cybercultures', though quite broad and philosophical. (Five copies in library).
- Berners-Lee, Tim (1999), *Weaving the Web: The Past, Present and Future of the World Wide Web*, Orion, London. — Good book on the ethos, history, and future of the Web, by its inventor. (Four copies in library).
- Schwartz, Evan I. (1999), *Digital Darwinism: Seven Breakthrough Business Strategies for Surviving in the Cutthroat Web Economy*, Penguin, London. — Web economics. The title tells you what it's like. (Four copies in library).
- Dyson, Esther (1998), *Release 2.1: A Design for Living in the Digital Age*, Penguin, London. — Good introduction to the internet in society and business. (Four copies in library).
- Liberty, eds (1999), *Liberating Cyberspace: Civil Liberties, Human Rights and the Internet*, Pluto Press, London. — Contains a good range of punchy chapters on social concerns about the internet. Its remit is actually broader than the title suggests. Good. (Four copies in library + three in Law library).
- Tapscott, Don (1998), *Growing Up Digital: The Rise of the Net Generation*, McGraw Hill, New York. — Cheerful book about the 'Net generation'. (Four copies in library).
- Jordan, Tim (1999), *Cyberpower: The Culture and Politics of Cyberspace and the Internet*, Routledge, London. — Not bad, but seems mired in the mid-1990s. (Five copies in library).

The library, of course, has many other more-or-less relevant books.

What about magazines?

As with books, avoid the ones called *So You're An Idiot Who Just Bought A Computer!* which have an irrelevant picture of Kelly Brook on the cover. The good internet magazines in the UK are the cunningly-titled *Internet Magazine*, and *.Net*. They both provide news and reviews about the world of the internet, as well as practical advice for novice web builders.

What about websites?

Good point. The Web, unsurprisingly, has advice and news and features on everything under the sun, including lots on the Web itself, and website development. Start at this module's website, www.newmediastudies.com/module, or see the list of useful websites on page three of this guide, or just go to www.yahoo.co.uk and see where you find yourself.

Do I need to buy a computer? I haven't got a computer. Aieeeee!

Calm down. You don't need to buy a computer. The multimedia room is full of them, and the University has several other clusters where you can surf and study on the Web too.

Will we be using fancy, expensive and complicated software?

On the whole, no. The greatest web-making skill — a skill which will impress employers, and which will not date very quickly — is to know HTML, the 'hypertext mark-up language' that websites are made with. This is just text, and can be produced using that most basic of programs, *Notepad*, which has come with Windows since its earliest incarnations.

You will also use a graphics package such as *Photoshop* or *Paint Shop Pro*, to make logos and headings – or even beautiful artworks – for your web pages. This is relatively straightforward too, and you can learn to use it by messing about and seeing what happens. You might just use it for writing titles for your pages in fancy fonts, so don't get worried about having to use a graphics package.

USING THE WEB

What's a *good* way to search the Web?

The best search engine at the moment (January 2002) is *Google* (www.google.com), and the best directory of websites remains *Yahoo* (www.yahoo.com). Remember the limitations of search engines, and use them accordingly. They do not have an exactly up-to-date catalogue of every bit of information on the web. For example, for details of a recent news story, don't ask a search engine, but go to a news site with an archive (such as www.bbc.co.uk/news or www.guardian.co.uk) and use its own internal search facility.

What can the Institute offer?

From my own web page (www.leeds.ac.uk/ics/david) you can access various things including this course guide – so you know where you can go when you lose this copy – and my websites of resources. The one which should be valuable to you is *New Media Studies* (www.newmediastudies.com) – the website for the study of new media – which includes articles, web design and marketing guides, reviews, a guide to valuable sites *about* the internet, art-related material, some debates, links to web statistics, and more.

COMPUTER ROOM TASKS

If you're in a computer room, and you are not in a position to start playing with HTML and web-building yet, try one of these handy tasks:

1. Search for websites about a topic, artist or activity that interests you. Note the differences between results from a search engine compiled automatically (such as AltaVista) and from a directory compiled by humans (such as Yahoo!).
2. Look at the design and usability of various sites. Which sites are easy or difficult to find your way around? Why is that?
3. How do you know whether you can *trust* a particular website? Can you find out who made it?
4. Browse around some of the sites listed on page 3. What makes them good (or bad)?
5. Begin looking for sites which you might review for the assessment due on 22nd March.

GLOSSARY

I'll try to avoid unnecessary jargon in this course. Always shout at me if you hear me using it. However, some technical terms are necessary. Happily, this handy glossary should help you come to terms with the funny nouns, verbs and even people of the wired world.

This glossary is by David Gauntlett and David Silver, and is taken from *Web.Studies: Rewiring media studies for the digital age* (see www.newmediastudies.com/webbook.htm).

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Acrobat, Adobe – Software which runs on different platforms (computers with divergent operating systems), allowing documents to be viewed exactly as originally intended, complete with layout and graphics. Used on the Web by people who insist on having total control over document formatting, or who can't be bothered to convert the documents into Web pages, which would often be preferable. The Acrobat viewer is free; Adobe makes its money by charging for the software which converts documents into Acrobat files.

ADSL – Asymmetrical Digital Subscriber Line, an extremely fast way of sending data down standard copper phone lines.

Andreessen, Marc (1972-) – Whilst a student at the National Center for Supercomputing Applications (NCSA) at the University of Illinois, Andreessen produced, with staff member Eric Bina, the first Web browser with a graphical point-and-click interface (like Apple and Windows operating systems), called *Mosaic*. This popular early browser, first distributed free over the internet in February 1993, really kick-started interest in the Web. In 1994, Andreessen and Jim Clark launched Netscape Communications Corporation, and Netscape dominated the browser market for around four years, although Microsoft later succeeded in its late-starting bid to seize power in this area.

AOL – The leading commercial online service that serves as an entry point to the internet for over twenty million users. (A merger in January 2000 saw the company become AOL Time Warner). As a result of its user-friendly interface and wall-to-wall marketing, AOL attracts countless network newcomers which, in turn, attracts widespread hostility from internet old-timers towards 'AOL Newbies.'

ARPANET – An experimental computer network created by the United States military during the cold war. Established in 1969 by the Advanced Research Projects Administration (ARPA) to support military research and nuclear-attack proof communication, ARPANET stands as the original ancestor of the internet.

Attachment – A file (such as a document, spreadsheet, or graphic) sent 'attached' to an e-mail message.

Banner advert – Long, thin advert appearing on a Web page. ('Banner ads' may also refer to on-line adverts generally, regardless of their shape). Many sites make some money by selling banner advert space. Banner ads are often animated, and considered annoying by many. Some ads even include little games in a bid to get the user to click through to the advertiser's website.

BBS – Short for bulletin board system, a BBS is an open computer system which members can dial into (via a phone) in order to send email, join discussion groups, and download files.

Berners-Lee, Tim (1955-) – Invented the World Wide Web during 1990-91, whilst working at CERN, the European Particle Physics Laboratory in Geneva. In 1994 he later established the World Wide Web Consortium (W3C) to oversee the Web's development and recommend universal standards. His book, *Weaving the Web* (1999), gives a valuable account of the development of the Web, and his original ideas and intentions for it.

Bookmark – A routine perfected by Netscape Navigator which allows Web surfers to save a URL to a site or page that he or she has already visited, and revisit the site at a later point in time. In Microsoft's Internet Explorer browser, they are called 'Favorites'.

Browser – Software for viewing and travelling around the Web, such as Netscape Navigator and Microsoft's Internet Explorer.

Bug – Computerese for a software error or programming glitch which causes the computer to malfunction or crash. Bugs are always around, seldom liked, and never entirely eliminated.

Cache – A small, fast area of computer memory used to hold recently accessed data. Most often applied to Web browsers' cache, memory spaces used to hold recently visited Web sites.

Cascading Style Sheets (CSS) – An extension to HTML which allow styles (colour, font style, and font size, for example) to be specified for certain elements of a hypertext document. CSS are especially useful when preparing many, slightly different html pages.

CD-Rom – a compact disc used with a computer (as opposed to a stereo) which holds large amounts of digital information. Until recently, CD-Roms stored information which users could only access. Today, with the proper software and hardware, users can access and alter the information.

CGI – Common Gateway Interface (CGI) scripts are computer programs which are placed on Web servers, and allow Web pages to process data entered by the user.

Chat – A form of online communication which allows users to have conversations in real-time. When participating in a chat discussion, users' messages instantaneously appear on another user's computer monitor or, while in a chat room, on the screens of multiple users.

Compression – Files can be compressed (in various ways) so that they can be downloaded more quickly. For example, 'red dot, red dot, red dot, red dot, red dot, red dot, red dot, red dot,' is the standard long-winded way in which a computer would describe a graphic which, when displayed, looks like a red line. But it could just say '9 red dots'. That's compression.

Cookie – A bit of information, such as a reference number, saved on a Web user's hard disk drive by a website, so that the site can 'remember' information about that particular user. These cookies are saved in one cookies file, which is a simple text file which cannot, in itself, do any harm. Cookies only enable websites to recall information which the user has given to them; they do not send information like your name or e-mail address to a website of their own accord.

Cybercafe – A cafe offering internet access. They range, like all cafes, from the very stylish to the very smelly. At the moment, cybercafes look like cafes with a load of computers on the tables. In the future, we are told, internet access will be offered by things like coffee cups anyway, which will save a lot of space.

Cyberpunk – A subgenre of science fiction inspired largely by William Gibson's 1982 novel *Neuromancer* and characterized by futuristic computer network-based societies. Recently, the term cyberpunk has been (incorrectly) co-opted to refer to any cultural phenomenon involving digital technology and black leather.

Cybersex – Often called 'tinysex' or 'one handed surfing,' cybersex refers to sexual activity or arousal which takes place within computer-mediated environments such as MUDs, chatrooms, and email.

Cyberspace – A more mainstream and literary term for internet, cyberspace refers to the conceptual space where computer networking hardware, network software, and users converge. The term was originally coined by William Gibson in his 1982 novel *Neuromancer*.

Cybersquatting – The practice of buying domain names with the intention of selling them on, subsequently, to companies that are willing to pay lots of money to have them. In the mid-1990s, enterprising people would buy up ".com" domain names which just happened to be those of well-known companies, knowing that soon the companies would be willing to spend a lot of money buying rights to their brand's domain. Others just bought names like "toothpaste.com" knowing that someone would be bound to want to pay lots of money for them soon. Some legal precedents have now made the purchase of domain names which are the same as existing well-known trademarks illegal (in some countries).

Default – The original arrangement of something – the 'factory setting'.

Digital – A description of data which is stored or transmitted as a sequence of discrete symbols from a finite set, most commonly as binary data (zeroes and ones) represented by electronic or electromagnetic signals. The less precise form of data that preceded digital was analogue. CD-Roms are to digital as vinyl records are to analogue.

Digital camera – Digital cameras take photographs like normal cameras but save them in digital form (as JPEG or GIF files, for example), thereby allowing fast and easy transfer to the Web.

Digital versatile disc or digital video disc (DVD) – A high-density compact disc used for storing large amounts of data, especially high-resolution audio-visual material. Currently, DVDs provide over seven times the storage capacity of CD-Roms and are often used to store and trade pirated versions of films and television shows. Commercial DVD releases of movies contain a host of bonus features, such as interviews and 'making of' films, except for those designed towards the end of the week, when the makers can't be bothered.

Domain – The location of a website, ending in a suffix such as '.com' (for commercial sites), '.org' (non-profit organisations), '.edu' (education), '.gov' (government), '.net' (internet-related), or regionally-specific variants such as '.co.uk' (UK company), '.ac.uk' (UK higher education), '.gouv.fr' (French government). A domain may contain several websites at different addresses within it; it's the very broadest description of where a site resides. (Geocities.com, for example, gives a home to millions of sites). A domain name doesn't *necessarily* lead to a website, as they can be bought and then not used, or used only for e-mail. (See also: Cybersquatting).

Domain Name Server (DNS) – A server on the internet which matches domain names to IP addresses, telling computers where to look for requested pages or files.

Dreamweaver – Popular and effective webpage-making and website-managing software, produced by Macromedia. Takes a WYSIWYG approach (see below) but is particularly appreciated by website authors because it doesn't mess up your HTML. (Other programs are more arrogant and sometimes rewrite the code – often in a way that the user does not appreciate).

E-commerce – Electronic commerce: money-making business on the internet.

E-mail – Messages sent via the internet from one user to another. As new internet applications come and go, E-mail remains the most simple and most cherished use of the Net.

FAQ – See Frequently Asked Questions.

File – a collection of information (a graphic, a software program, an email, for example) recognised and treated as a single unit by a computer.

Flame – An abusive e-mail, usually sent to someone who has made an ignorant, offensive or commercial contribution to an e-mail or newsgroup discussion.

Flash – Vector-based graphics and animation format (see 'Vector based graphics' below) developed by Macromedia, popular on the Web because it can deliver attractive websites – with interactive graphics and sound – with small file sizes.

Freeware – Software distributed for free, with no restrictions, over the internet (or by other means).

Frequently Asked Questions (FAQ) – Common form of web page which provides answers to questions frequently sent to the website.

FTP – Short for file-transfer protocol, FTP refers to 1) a method of transferring one or more files from one computer to another on a network or phone line, and 2) an application program which moves files across the internet using the file-transfer protocol.

Gates, Bill (1955-) – Chief Executive of Microsoft from 1975 to January 2000, when he became Chairman and Chief Software Architect (Steve Ballmer is the new Chief Executive). Extremely rich, obviously. Not popular amongst internet people, who often feel that Microsoft have tried to turn the universal internet into Microsoft Internet (TM).

GIF – A graphics file common on the Web, which uses a palette with a limited number of colours to keep its file size down.

Gopher – A menu-driven program developed at the University of Minnesota which helps users explore, locate, and retrieve information on the internet. Gopher organizes all information via a series of hierarchical menus. Actually, lots and lots of menus. Happily, the World Wide Web has basically replaced it.

Hacking – Gaining access to supposedly secure computer systems without the consent of the system's owners.

Hard copy – The printout, on paper, of data (such as a website).

Hard disk – Often referred to as a hard drive, a hard disk is a magnetic disk mounted permanently in a computer's central processing unit, or CPU. Hard disks are used to store data, primarily permanent operating applications and temporary files.

Hits – Often taken to mean the number of visitors to a webpage or site: people say 'My site received one million hits last month' and assume this means one million people visited the site. But it doesn't. The number of hits is the number of requests for files made to the web server. An average web page is made up of one HTML file and several graphics files (containing logos, pictures, buttons, bars and so on). So loading one web page might notch up ten hits, for example. And then the same visitor might look at other pages, easily generating 50 or 100 hits. So 'one million hits' would never mean one million visitors; it would more likely represent, say, 50,000 visitors, although the percentage of actual visitors (compared to number of hits) will vary from site to site. (Note: To confuse matters further, sometimes people say they had '1,000 hits' when they actually know that they had 1,000 visitors, but they think that 'hits' is a more trendy word for that, which it isn't).

HTML – Hypertext Markup Language, simple computer language which most Web pages are written in, devised by Tim Berners-Lee. An HTML Web page is basically a text document with added HTML tags; these tags, in <angular brackets>, tell the browser how to arrange and format the text, where to add graphics, where links are, and so on.

HTTP – Hypertext Transfer Protocol, devised by Tim Berners-Lee as a fast, universal protocol for passing files around the internet, particularly suited to the hypertext system on the Web.

Hyperlink – On a Web page, a hyperlink (or simply 'link') is text or a graphic which the user clicks on in order to proceed or move to a related page.

Hypertext – Text which includes links or shortcuts to other documents, allowing the reader to easily jump from one text to related texts, and consequentially from one idea to another, in a multi-linear, non-sequential manner. Originally coined by Ted Nelson in 1965, hypertext serves as the organizational foundation for the World Wide Web.

Internet – A worldwide network of networks which connects computers around the world. First incarnated as the ARPANET in 1969, the internet has transformed from an internal military network, to an academic research net, to the current communication and commercial internet of today. It supports services such as email, the World Wide Web, file transfer, and Internet Relay Chat. The internet is commonly referred to as 'the Net', 'cyberspace,' and 'the information superhighway.' It's also what all the commotion is about.

Internet Explorer – Web browser, produced by Microsoft from 1996, and given away free (and bundled or 'integrated' with Windows) in order to compete with Netscape Navigator. Despite being shunned by those opposed to Microsoft's dominance of the software market, IE had become the most-used browser by 1998.

Internet Service Provider – Company or organisation providing access to the internet. When a home internet user goes on-line, their computer phones their ISP (via a modem), which provides a gateway to the internet.

Intranet – A network used for internal communications within an organisation.

ISDN – Short for Integrated Services Digital Network, ISDN is a set of communications standards offered by telephone carriers which provides users with extremely fast internet connections. ISDN allows a single wire or optical fibre to carry voice, digital network services, and video, and is believed by many to be the network which will ultimately replace the telephone system.

ISP – See Internet Service Provider.

Java – A programming language created by Sun Microsystems, and featured on many Web sites. As a platform independent language, Java programs can be run on any computer, either as a free-standing application or as an applet placed on a Web page. While Java has served to increase Web interactivity and expand multimedia, it is scorned by others for increasing download time and fostering a more commercially-focused World Wide Web.

JPEG – A compressed graphics file common on the Web, which can contain up to 16 million colours and so is used for 'photographic' type images.

Linux – A platform independent operating system created by Linus Torvalds and friends starting about 1990. Unlike other operating systems such as Windows 98, Linux can be downloaded and distributed for free. For that reason, many consider Linux to be the most worthy threat to Microsoft's computing hegemony. Assembled collaboratively by literally thousands of users, Linux is often referred to as the world's greatest hacker project in history.

Listservs – Often (technically incorrectly) called mailing lists, listservs refer to 1) the software which makes possible automated mailing list distribution systems and 2) the online communities which arise from such lists. Listservs can be either moderated or unmoderated and differ from mailing lists by their automated means of subscribing and unsubscribing.

Microsoft – Founded in 1975 by Bill Gates and Paul Allen, Microsoft is the world's largest supplier of operating systems and other software for personal computers. Some of their software products include MS-DOS, Microsoft Windows, Windows NT, and, most recently, Microsoft Internet Explorer. Due to their heavy-handedly aggressive marketing tactics, many Netheads actively and enthusiastically hate Microsoft.

Modem – A device which enables a computer to send and receive information over a telephone line.

MOO – A type of MUD, MOO is short for Multi-User Domain, Object-Oriented and differ from MUDs by allowing users to interact with programmable objects. In keeping with MUDs, these objects are usually dungeons, dragons, and whips.

Mosaic – Popular early Web browser. See Andreessen, above, who co-wrote it.

MP3 – Popular format of audio files which provide good quality digital sound but take up (relatively) few kilobytes. MP3s are therefore popular on the internet, because you can download good-quality music quite quickly.

MUD – Short for Multi-User Domain or Multi-User Dungeon, MUDs are online role-playing environments. MUDs occur in text mode – similar to a chat room – where players assume a spectrum of identities and explore a range of environments, often based on fantasy fiction or sexual situations.

Netscape – see Andreessen, above, who founded this company.

Netscape Communicator – Suite of software including Navigator (web browser), Messenger (e-mail program), and Composer (for producing web pages), plus other features.

Netscape Navigator – Web browser, launched in 1994 by Marc Andreessen (see above), who had written the first popular browser, Mosaic.

New media – Term which embraces all of the 'new' forms of electronic media – newer than TV and radio, that is – such as multimedia CD-ROMs, the internet, and video games. Sometimes it is taken to mean 'the Web' although it is really a broader term.

Newbie – Someone new to the internet. Newbies are sometimes sneered at by established internet users, such as long-standing members of e-mail discussion lists (listservs) who tend to be annoyed when a 'newbie' joins and starts posting 'ignorant' questions.

Newsgroups – A public online space where messages are posted for public consumption and response. The most available distribution of newsgroups is USENET, which contains thousands of newsgroups devoted to all kinds of (diverse and perverse) topics. Often referred to as the original public sphere of cyberspace, newsgroups are currently overrun by spam.

Plug-in – An extra bit of software which has to be added to a browser before a certain type of file can be viewed. For example, Flash animations cannot be seen unless one has the Flash plug-in. Recent browsers come with a number of the most common plug-ins pre-installed.

Portal – A website which aspires to be your primary point of contact with the Web, usually offering a bundle of news, search facilities, free e-mail, chat areas, and other gimmicks. Examples include Yahoo, Netscape Netcenter, BBC, Handbag, and many more.

Program – Used as a noun to describe a series of instructions which tell a computer what to do or as a verb to describe the act of creating or revising a program.

QuickTime – Refers to both a standard and an application used by Apple computers for integrating full-motion video and digitized sound into programs and Web sites.

RealAudio – A browser plug-in used for playing real-time audio over the Web. On a standard slowish modem connection, RealAudio can sound a bit like a radio underwater.

RealVideo – A browser plug-in for playing real-time video over the Web. On a standard slowish modem connection, RealVideo can look like a jerky, blocky computer game from the land that time forgot.

Scanner – Machine which scans an image, such as a photograph or newspaper article, and turns it into a file which can be displayed and manipulated on a computer.

Search engine – Search facility based on a database of as much of the Web's content as possible, compiled by electronic 'spiders' or 'robots' which roam around the internet cataloguing content. (Therefore search engines are different to directories, such as Yahoo, which are more selective and are compiled by humans). Examples include AltaVista, Google, and Excite.

Server – A computer or set of computers that provides client stations with access to files and printers as shared resources to a computer network. The most common servers are Web servers which send out Web pages, mail servers which deliver email, list servers which administer mailing lists, and FTP servers which hold FTP sites and deliver files to users who request them.

Shareware – Software which is usually free initially, but may ask you to register the product and pay its creator after a certain trial period, or which might ask you to make a voluntary payment if you like the software and use it regularly. Shareware is often distributed over the internet.

Shockwave – A more complex, programmable variation of Flash (see above) which can be used to produce interactive games, multimedia presentations, or other applications, which run from websites. Macromedia's Director software is needed to produce Shockwave content.

Site – See Website.

Spam – Junk e-mail, sent to several people at once. Any e-mail that is not written for your personal attention can be seen as spam. E-mail advertising or promoting something is spam; chain letters and virus hoaxes are also regarded as spam by most sane people.

Style sheet – Often referred to as a template, a style sheet is a file or form which defines the layout of a document. Most commonly found in Web site production, word processing, and desktop publishing, style sheets are useful in that they give designers the ability to use the same style sheet for many documents.

Surfing – Popular term for wandering around the Web, like ‘channel surfing’ television, and therefore a regrettable term since it positions the web user as rather passive.

Torvalds, Linus (1970-) – Created the first version of Linux, a one-time experimental version of the UNIX operating system whilst a student at Helsinki University. A hero among Netheads and the antithesis to Bill Gates, Torvalds worked with thousands of programmers to alter, tweak, and perfect Linux and to keep it free of charge.

Unix – The operating system upon which the Internet was developed. UNIX was developed in the late 1960s/early 1970s as a joint venture between General Electric, AT&T Bell Laboratories, and M.I.T. Later, UNIX grew with support from the University of California, Berkeley and other universities. There are several free versions of UNIX, including Linux and FreeBSD. Among many, knowledge of Unix is the bar which separates technical Netheads from newbies.

URL – Uniform Resource Locator: the address beginning “http://” (see ‘Hypertext Transfer Protocol’ above), which can point to a file on a web server anywhere in the world. Some people call this URI, for Universal Resource Indicator (suggesting that the same address will always point to the same file in the same place), as preferred by Tim Berners-Lee, but most people ignore that.

Usenet – Originally implemented in 1979-80 by Steve Bellovin, Jim Ellis, Tom Truscott, and Steve Daniel at Duke University, Usenet continues to be the largest worldwide collection of newsgroups. While not part of the Internet, Usenet can be reached through most Internet service providers and provide over ten thousand public forums on practically every topic under the sun. Really. The names of newsgroups are comprised of a string of words separated by dots, such as ‘rec.sport.sumo’ or ‘alt.barney.dinosaur.die.die.die.’

Vector-based graphics – A graphics or animation system which can deliver complex or large graphics but small file sizes, by describing the shape and position of elements, rather than describing them pixel-by-pixel (as conventional graphics formats do). Vector-based graphics can be scaled up or down but always retain a smooth appearance, because instead of explaining the layout of square pixels, the format is saying, for example, ‘draw a curve from the centre of the shape to the top-left corner’.

Virtual – A commonly used adjective which refers to anything remotely related the internet. Online discussions become virtual communities; online environments become virtual realities; and a dodgy email describing what one user would do to another in which way and how often becomes virtual sex.

Web – The World Wide Web. According to its inventor, Tim Berners-Lee, Web should be written with a capital ‘W’ when used as abbreviation of World Wide Web.

Webmaster – Grandiose (and arguably sexist) term meaning the person responsible for creating or maintaining a website.

Webpage – One page of the Web. Usually an “.htm” or “.html” file, which then may call for various graphics or multimedia files to complete its appearance on a user’s screen. Normally a webpage is part of a *website*.

Website – A group of related web pages, produced by one person, group or organisation, which are closely interlinked. For example www.newmediastudies.com is a *website* containing many *webpages* about new media.

Webzine – Written, edited, and designed by individuals, collectives, or corporations, webzines are zines which exist on the Web. Some are electronic versions of existing print magazines, but the ‘true’ webzine exists solely in cyberspace. Webzines originated as online public spheres for disgruntled, sarcastic teens and were products of love, unregulated ego, and/or a serious need to get a life. Recently, however, the term webzine has also become synonymous with the online version of a traditional, corporate magazine.

WELL, the – Short for the Whole Earth Electronic Link, the WELL is a commercial online community which was established in 1985 to serve San Francisco’s Bay Area. Currently international in scope, the WELL is perhaps the most well known virtual community in the world, a result no doubt of its devoted subscribers and of Howard Rheingold’s seminal work *The Virtual Community*.

Wired (magazine) – Originally established in 1993 by Louis Rossetto to cover impending digital culture, *Wired* has become a mainstream mouthpiece for the new digital economy, with an occasional libertarian nod towards the more social and political ramifications of the Information Age. Glossy, full of ads, and overflowing with self-importance, *Wired* represents all the unfulfilled promises of cyberspace.

World Wide Web (WWW) – A global web of interconnected pages which (ideally) can be read by any computer with a Web browser and internet connection. More technically and specifically, the WWW is the global web of interlinked files which can be located using the HTTP protocol.

WYSIWYG – An abbreviation for What You See Is What You Get, and pronounced ‘wizywig’. In Web terms, WYSIWYG programs allow website designers to design webpages on screen. The software displays what the page will actually look like when viewed in a browser – as opposed to showing a screenful of HTML code.

Yahoo! – Popular directory of websites (www.yahoo.com), compiled by actual humans. People with websites have to fill in a submission form, on the Yahoo website, so that Yahoo’s editors can consider it for inclusion. Yahoo also provides conventional search engine results if its directory can’t match your request. The site has also grown to become a portal site, offering free e-mail, auctions, and by the time you read this will probably be offering singing lessons and veterinary advice.