BRIEF HISTORY OF THE INTERNET

Development of the Internet

The Internet didn't just happen overnight - rather it was the end result of a search that had been in place since the late 1950s. By the time the world started to get online in the mid 1990s, the Net had been almost 40 years in the making.

ARPANET is born (1960): an Internet is conceived

In 1969 the Pentagon commissioned ARPANET for research into networking. The following year, Vinton Cerf and others published their first proposals for protocols that would allow computers to 'talk' to each other. ARPANET began operating Network Control Protocol (NCP), the first host-to-host protocol.

In 1974 Vint Cerf joined Bob Kahn to present their 'Protocol for Packet Network Interconnection' specifying the detailed design of the 'Transmission Control Program' (TCP) - the basis of the modern Internet. In 1978 TCP was split into TCP (now short for Transmission Control Protocol) and IP (Internet Protocol).

TCP/IP defined: the foundation of the Internet

In 1982 TCP/IP was established as the protocol for ARPANET. This provided one of the first definitions of an internet as a connected set of networks using TCP/IP, but defining 'the Internet' as all connected TCP/IP internets. The launch of the Russian satellite Sputnik in 1957 threw the American military and scientific establishment into near panic with visions of Soviet weapons in space striking a helpless America. As part of the response, in 1959 the Advanced Research Projects Agency (ARPA) was formed within the Pentagon to establish an American lead in military science and technology.

By the early 1960s the first theories of computer networking were starting to be shaped and in 1965 ARPA sponsored a study on 'co-operative network of time-sharing computers'.

The first such plan was shaped by Lawrence G. Roberts, of the Massachusetts Institute of Technology (MIT) in October 1966. Designs for such a network were put forward the following year and in 1968 the Pentagon sent out requests for proposals for ARPANET - a computer network to unite America's military and scientific establishments.

The World Wide Web is invented (1991): anyone and everyone

By the end of the 1980s the European Particle Research Laboratory CERN in Geneva was one of the premier Internet sites in Europe. CERN desperately needed a better way of locating all the files, documents and other resources that now threatened to overwhelm it.

A young British scientist, Tim Berners-Lee, working as a consultant for CERN, had the answer. His 'World Wide Web' system assigned a common system of written addresses and hypertext links to all information. Hypertext is the organisation of information units into connections that a user can make, the association is called a link.

In October 1990 Berners-Lee started working on a hypertext graphical user interface (GUI) browser and editor. In 1991 the first WWW files were made available on the Internet for download using File Transfer Protocol (FTP).

By 1993 the world was starting to wake up to the World Wide Web. In October that year there were around 200 known HTTP servers. Within a year there would be thousands.

May 1994 saw the first International WWW Conference - at CERN in Geneva. The event was heavily oversubscribed, with 800 applying to attend and only 400 allowed in.

By now the load on the first Web server at CERN was 1,000 times what it had been three years earlier

The search for speed (1965): waiting for the progress bar

The Post Office's first computer modem in 1965 ran at a maximum speed (or data transfer rate) of 600 bits per second. Today's modems run at 56kbit/s, nearly 100 times faster.

So why does the Internet experience seem so depressingly slow at times?

One reason is file size. Files took less time to cross the system in 1965 simply because they were smaller and were plain text, with no formatting. We pay for rich data in longer file transfer times.

Users also generally share a node (entry point) to the Internet, meaning you may have to wait a while for your turn to come round. Furthermore, if you're hitting a popular site, you'll be competing with hundreds or thousands of others for the attention of that site's servers.

What can you do? Not a lot. You could try changing the time of day you go online, remembering that America accounts for easily half the traffic on the Web - and they're between five and eight hours behind.

The Internet price war: when ISPs collide

Just as the saying goes about there's no such thing as a 'free lunch', there is also no such thing as free Internet access - with nobody as yet finding a way to provide the telephone or data connections involved completely free of charge.

That said, prices have fallen with some Internet Service Providers (ISPs) offering unlimited dial-up access, faster connections through broadband technology, virus scanning and lots more lot for a fixed monthly charge.

Originally, many ISPs made money by taking a proportion of the call costs. There was no monthly subscription but users had to pay local call rates, meaning the bill grew with every extra minute spent online. Complaints that this was holding back Internet use coupled with pressure on margins and it was this that spurred most ISPs into offering tariffs that now give unlimited use for a fixed price.

Making internet access available to everyone in the UK is also firmly in the minds of our politicians with the three main parties

Connected Earth

E-CONFERENCING

One of the exciting new ways that people communicate these days is by e-conferencing. That first letter stands for *electronic*. Such e-conferencing is usually done via the Web, but server-based e-conferencing is common as well.

The most common kind of e conferencing is the Internet chat, otherwise known as Internet Messaging or simply IM. Whether you realize it or not, every time you engage in one of these sessions, you are e-conferencing. Even if it's just a social chat between friends, it can still be classified as e-conferencing.

What most people envision when they think about e-conferencing, however, is business-related interaction. Such e-conferencing can take the form of audio and/or video conversations, message swapping, file sharing and other forms of electronic interaction that simulate the experience of everyone being in the same room. That is the essence of e-conferencing, the ability to make it seem like everyone is in one room even if they are on separate continents.

People participate in e-conferencing using a variety of software applications. Some types of Internet chat applications, such as Yahoo Messenger, MSN Messenger, Skype or Google Chat, are first and foremost text-chat enablers. These applications, however, also boast file sharing functionality as well, with some of the more adventurous applications including links to other services offered by the portal or manufacturer.

Some software applications offer all manner of e-conferencing possibilities. You can even, if you look hard enough, find an application suite that does it all, giving you audio, video, messaging, data sharing, and a whole lot more. Most providers of this kind of suite, especially, include a very attractive security package, so you and your colleagues can virtually interact while enjoying the peace of mind that you are not being spied on and your data-sharing activities are not being hacked. Other providers of lesser e-conferencing functionalities have varying degrees of security as well.

The common perception of e-conferencing is that it happens in real time, with everyone interacting at once. This is not always the case. A very popular use of e-conferencing is the prerecording and subsequent viewing of presentations, for business meetings or even for educational sessions. This kind of meeting is still considered e-conferencing, even though it doesn't seem to fit the common definition. Interaction is still taking place electronically; the introduction and absorption of information is simply not simultaneous.

As more and more people own and operate computers regularly, e-conferencing will become more and more attractive as an option for sharing thoughts, laughs, and sensitive information. Software applications will continue to improve to meet this growing demand as well. It's all a by-product of the always-on, interconnected global society that computers and the Web make possible.

We use this medium to invite members of NSE to indicate their interest in any committee they are interested in participating in for the purpose of e-meeting where business exegeses does not permit physical presence.

Latest Computer Technology

Each year it is crucial to some computer owners to examine the latest computer technology to keep their PC's up to date. There are an immense amount of options to look into each new year. The important part is to research as much as possible. Make sure you know exactly what is necessary and what is not. One might not even have to go out and buy a brand spanking new system it could just be as simple as upgrading your current system with the latest computer technology. With internet shopping on the rise you don't even need to leave your home to find the latest computer technology. Just search for it on the internet, depending on the type of latest computer technology you are looking for depends on where you can find it. In some cases the upgrade could be as simple as a free download available on a specific website. Such examples of easy downloadable computer technology are Adobe Acrobat, different types of Instant Messaging programs, and a variety of music downloading programs are available for free online. These music programs involve different users from all over the globe who download and share music, this program is not only available as a free download online but in some cases the actual music download is free! This has caused a great deal of controversy in the past. Napster, a free music downloading program, caused a heated debate a couple years back. The United States bred Metal Band, Metallica, decided to sue Napster for the proceeds connected to their music. In their minds Napster was stealing money away from them.

The latest computer technology is not always downloadable from the internet. Sometimes you actually have to add hardware to your computer and install it with a CD-rom. This hardware can be bought either in the convenience of your own home on the internet or a visit to your nearest computer store. Some of the latest computer technology involving the installation of hardware are these little devices known as the digital cameras. The digital camera could be something such as a web-cam, recently known for its contribution to the porn industry. The Web-cam is basically a small video camera, most often attached to the side of the computer monitor, which captures your image and activity. This video recording can be used to communicate with family and friends across the globe or even posted on a website, often at a price. Nonetheless, the latest computer technology is always right at your fingertips!

The President, Engr. Emeka Muoma Ezeh, FNSE, Council and Members of The Nigerian Society of Engineers Cordially invite to the Investiture of Engr. Kashim Abdul Ali, FNSE As the 26th President of The Nigerian Society of Engineers. Special Guest of Honour Dr. Aliyu Modibbo Umar, Hon. Minister, FCT. Venue: International Conference Centre Abuja. Date: Saturday 12th January, 2008. Time: 10.00am Prompt. R.S.V.P. Engr. O. W. Uzebu, FNSE, Chairman, Investiture Plan. Committee. 0803 804 9325. Engr. U. G. Jibrin, FNSE, Vice Chairman, Investiture Plan. Committee. 0803 312 0190. Engr. F. C. Ogolo, FNSE, Executive Secretary. 0803 399 420

The Nigerian Society of Engineers, Port Harcourt Branch. THE CHAIRMAN ENGR. BASOENE JOSHUA BENIBO, FNSE On behalf of the Branch Cordially invites to the Investiture of ENGR. BATEIM MAX HARRISON OGARIAWO, MNSE As the Year – 2008 CHAIRMAN OF THE NIGERIAN SOCIETY OF ENGINEERS PORT HARCOURT BRANCH