Internet technologies

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- The Internet is a worldwide collection of computer networks that began as a single network that was originally created in 1969 by ARPA (Advanced Research Projects Agency), a U.S. government agency that was far more interested in creating projects that would survive a nuclear war than in creating anything useful for the civilian population.
- In its original form, ARPANET, the U.S. government hoped to create a network of computers that would allow communication between government agencies and certain educational centers that would be able to survive a nuclear explosion. It is doubtful that the original founders of ARPANET foresaw what we now know as "the Internet." From its humble beginnings as a military project, the ARPANET grew slowly throughout the 70's and 80's as a community of academics accomplished the truly monumental task of hammering out the building blocks of this new, open, modular conglomeration of networks.

- In addition to the U.S. ARPANET, other countries also developed their own computer networks which quickly linked up to ARPANET, such as the UK's JANET (1983 onwards), and Australia's ACSnet (mid-1970s until replaced). Connecting these together would help develop a global internetwork.
- The various protocols, including IP, TCP, DNS, POP, and SMTP, took shape over the years, and by the time the World Wide Web (HTML and HTTP) was created in the early 90's, this "Internet" had become a fully functional, fairly robust system of network communication, able to support this new pair of protocols which eventually turned the Internet into a household word.
- While a large portion of users today confuse the Web with the Internet itself, it must be emphasized that the Web is only one type of Internet application, and one set of protocols among a great many which were in use for over a decade before the Web entered into the public awareness.

- The Web is a subset of the Net. Email is not a part of the Web, and neither are newsgroups, although Web designers have developed web sites through which users, the world over, commonly access both of these much older forms of Internet media.

- While the Net is a largely abstract phenomenon, it cannot (at least, not yet) be accurately equated with the concept of "cyberspace" as depicted in science fiction. If "judgement day" were to occur as depicted in the latest "Terminator" film, much of the Internet would survive it, but most of the electrical and data infrastructure by which we access the net would not. The line which currently demarcates the "digital divide" would shift dramatically to a point where it would leave only a small segment of humanity in virtual touch. This limitation, however, will slowly be overcome as wireless technologies continue to proliferate and wired technologies become increasingly cheaper.

- In March 1972 ARPA became known as DARPA, the Defense Advanced Research Project Agency, and then went back to ARPA in February 1993 and back to DARPA in March 1996 and has been ever since. It was originally created as ARPA in 1958 in response to the launching of Sputnik. The launch of Sputnik made America realize that the Soviet Union could exploit military technology. DARPA has contributed to the creation of ARPANET as well as the Packet Radio Network, the Packet Satellite Network and the Internet. As well as research into the Artificial Intelligence field commonly referred to as AI. By the late 1970's the Department of Defense had adopted BSD UNIX as the primary operating system for DARPA.