Outline of the Internet
November 13, 2012

Contents

Note: To look up references, see the Consciousness Bibliography, listing 10,000 books and articles, with full journal and author names, available in text and PDF file formats at http://www.outline-of-knowledge.info/Consciousness_Bibliography/index.html.

MATH>Computer Science>Internet

Web
Publicly accessible computer networks {Web} {World Wide Web}| can use input/output communication lines.

internetworking
Different local networks can combine into one network {internetworking}.

client computer
Servers {server computer} route messages between clients {client computer}. Clients and servers have physical local network addresses {Media Access Control} (MAC), physical global network addresses {IP address}, network names, relative locations to other local servers or clients, and cryptographic key names.

web page
Web sites have one or more HTML files {web page}|.

robots.txt file
At web-site root level, files {robots.txt file} can instruct robots to disallow directories.

MATH>Computer Science>Internet>Naming

domain name
Web sites have names {domain name}|, such as "earthlink.com" or "menten.info", which people must register with ICAAN. Domains can have subdomains, such as "mail.earthlink.com" or "music.earthlink.com". Domain names are on networks, such as "www", as in "www.earthlink.com".

Uniform Resource Identifier
Web sites have addresses {Uniform Resource Locator} (URL) {Uniform Resource Identifier} (URI), which typically include protocol type, such as "http", network, such as "www", and domain name, such as "earthlink.com", making URI "http://www.earthlink.com". Web sites typically have "index.html" index file, which appear by default, in directories below web site, so URI is "http://www.earthlink.com/" or "http://www.earthlink.com/index.html".

website
Computers can have publicly accessible directory with index file in HTML format {website}|, which other computers can access over network. Web sites can use CGI tools, such as guestbook, hit counter, and message board. Web sites can allow FTP or have FTP tools, such as Fetch. Web sites can allow databases, such as MySQL. Web sites can allow password protection. Web sites can allow SSL encryption. Web sites have allotted disk space, such as 2 GB or 400 MB. Web sites have allowed data transfer amounts each month, such as 20 GB.

MATH>Computer Science>Internet>Programs

agent on Internet
Web sites can have programs {agent, Internet}| {intelligent agent, Internet} that aid selecting among choices, filling forms, or searching.

common gateway interface
On HTTP servers, Perl or C++ programs and scripts can use interfaces {common gateway interface}| with common functions.

search engine
Web-site programs {search engine}| can look in indexed databases of stored web pages or other information to find logical matches to entered words or phrases.

MATH>Computer Science>Internet>Programs>Robots

robot on Internet
Web-site programs {robot, Internet}| {spider, Internet} {crawler, Internet} {web crawler} {web wanderer} {wanderer, Internet} can automatically follow HREF referenced site links on web pages and download found web pages for indexing, validating HTML and/or links, noting what is new, or mirroring sites.

ant on Internet
Robots {ant, Internet}| {web ant} on different web pages and servers can cooperate.

MATH>Computer Science>Internet>Programs>Intrusive

cookie on Internet
Web-page servers can place small files {cookie, Internet}| on client-computer hard disks, to note that client accessed web page. Cookie files contain unique identifiers, so server can track computer activity.

web beacon
Web-page programs {web beacon}| can record number of times that computer accessed page or cookie.

MATH>Computer Science>Internet>Programs>Intrusive>Malware

phishing
Web sites, emails, or text messages can ask for private information {phishing}|, using pretexts.

spyware
Web-site programs {spyware}| can report user information to another web site.

trojan horse on Internet
Web-site programs {trojan horse, Internet}| can seem OK but have malicious code.

worm on Internet
Web-site programs {worm, Internet}| can follow links on web pages and try to replicate on web-page servers.

MATH>Computer Science>Internet>Protocol

protocol on Internet
Accessing web sites uses method {protocol, Internet}|, such as "http" or "ftp".

end-to-end principle
Internet hardware and software {Internet Protocol} should not affect network behavior {end-to-end principle}.

MATH>Computer Science>Internet>Levels

internet-0
All devices can interconnect {internet-0}.

internet-1
Current Internet connects computers {internet-1}. Software generates communication-line signals, encodes and decodes, sends and receives packets, assembles and disassembles packets, and standardizes packet contents.

internet-2
Internet can be high-speed {internet-2}.

bit size on Internet
Speed times sending time can be bigger or smaller than network size {bit size}. If bit size is bigger, there is no overlap, so network does not need special hubs, cables, and transceivers to coordinate different amplitudes, frequencies, and phases. System has no reflections or refractions. At gigabit-per-second speeds, in Internet, bit size is 30 centimeters. At megabit-per-second speeds, in home networks, bit size is 300 meters.