## Internet it 3458

Technology, Computer



The internet offers a huge wealth of information both good and bad, unfortunately the vary nature of the internet makes policing this new domain practically impossible. The internet began as a small university network in the

United States and has blossomed into a vast telecommunications network spanning

the globe. Today the internet is ruled by no governing body and it is an open society for ideas to be developed and shared in. Unfortunately every society has

its seedy underside and the internet is no exception. To fully understand the many layers to this problem, an understanding of net history is required.

Some

thirty years ago the RAND corporation, Americas first and foremost Cold War think-tank faced a strange strategic problem. The cold war had spawned technologies that allowed countries with nuclear capability to target multiple cities with one missile fired from the other side of the world. Post-nuclear America would need a command and control network, linked from city to city,

state to state and base to base. No matter how thoroughly that network was

armored or protected, its switches and wiring would always be vulnerable to the

impact of atomic bombs. A nuclear bombardment would reduce any network to

tatters. Any central authority would be an obvious and immediate target for enemy missiles. The center of a network would be the first place to go. So RAND

mulled over this puzzle in deep military secrecy and arrived at their solution.

In 1964 their proposed ideas became public. Their network would have no central

authority, and it would be designed from the beginning to operate while in tatters. All the nodes in the network would be equal in status to all other nodes, each node having its own authority to originate, pass and receive messages. The messages themselves would be divided into packets, each packet

separately addressed. Each packet would begin at some specified source node and

end at some other specified destination node. The particular route that the

packet took would be unimportant, only the final results counted. Each packet

would be tossed around like a hot potato from node to node, more or less in the

direction of its destination, until it ended up in the proper place. If big chunks of the network were blown away, which wouldn't matter, the packets would

still stay airborne, moving across the field by whatever nodes happened to survive. This system was efficient in any means (especially when compared to the

phone system), but it was extremely tough. In the 1960's this concept was thrown

around by RAND, MIT and UCLA. In 1969 the first such node was installed in UCLA.

By December of 69, there were four nodes on the network, which was called ARPANET, after its Pentagon sponsor. The nodes of the network were high-speed

supercomputers. (supercomputers at the time, desktop machines now)

Thanks to

APRANET scientists and researchers could share one another's computer facilities

over long-distances. By the second year of its operation however, APRANET's users had warped the high cost, computer sharing network into a dedicated, high-speed, federally subsidized electronic post office. The main bulk of traffic on ARPANET was not long-distance computing, it was news and personal

messages. The incredibly expensive network using the fastest computers on the

planet was a message base for gossip and schmooze. Throughout the 70s this very

fact made the network grow, its software allowed many different types of computers to become part of the network. Since the network was decentralized it

was difficult to stop people from barging in and linking up. In fact nobody wanted to stop them from joining up and this branching complex of networks came

to be known as the internet. In 1984 the National Science Foundation got into

the act, and the new NSFNET set a blistering pace for technical advancement,

linking newer, faster, shinier supercomputers through thicker, faster links.

ARPANET formally expired in 1989, a victim of its own success, but its users scarcely noticed as ARPANET's functions not only continued but improved. In 1971

only four nodes existed, today tens of thousands of nodes make up the network

and 35 million of users make up the internet community. The internet is and institution that resists institutionalization. The internet community, belonging to everyone yet no-one, resembles our own community in many ways, and is susceptible to many of the same pressures. Business people want the internet put

on sounder financial footing. Government people want the Internet more fully

regulated. Academics want it dedicated exclusively to scholarly research.

Military people want it spyproof and secure. All these sources of conflict remain in a stumbling balance and so far the internet remains in a thrivingly

anarchial condition. This however is a mixed blessing. Today people pay ISP's or

Internet Service Providers for internet access. ISP's usually have fast computers with dedicated connections to the internet. ISP's now more than ever

are becoming the backbone of the internet. The average netcitizen uses their computer to call and ISP, and the netcitizens computer temporarily becomes a

part of the internet. The user is free to browse or transfer information with others. Most ISP's even allow their users to set up permanent homepages on the

ISP's computer for the whole internet community to view. This is where many ethical and moral questions arise regarding the internet. Not every user wants

his homepage to deal with the spin rates of atoms or the airspeed of South

African swallows. Some users wish to display "objectionable" material

on their homepages. This may have started out as a prank to some, but now

net-

porn is an offshoot industry on the information superhighway. Companies like

Playboy and Hustler run their own servers that are permanent parts of the internet, and on their pages they charge user to view Playboy and Hustler type

material. What makes matters worse is evolution of the internet newsgroup system. USENET in its infancy was ARPANET's news and message component. Today

USENET is a huge database with thousands of newsgroups that all internet users

have access to. Millions use groups like alt. comp. disscussion. games to share

ideas, and millions use groups like alt. binaries. pictures. erotica. teen to share

ideas and pictures that are less family oriented. Average users can also set up

homepages on ISP's. In fact, most packages ISP's offer usually include space for

your own homepage. They are easy to create and the ISP's maintain them for free

so the entire online community can see what you have to say. Unfortunately not

everyone wants to set up homepages dealing with the spin rates of atoms or the

airspeeds of South American swallows. Most ISP's are more than willing to set up

homepages dealing with the most gratuitous of acts aimed at very specialized

audiences. This is where the problem of net censorship arises. It is true that there is a wealth of pornography and other indecent material online for all to see. All that a person has to do is to type in an " indecent" word and modern search engines will point to sites where the word crops up. Typing in a

popular for letter expletive into two of the most popular search engines yielded

17224 hits for Lycos and 40000 for AltaVista, the worlds biggest search engine.

However both of these engines have over 60 million cataloged web pages.

Although

this material makes up less that 1% of all messages on USENET or pages on the

world-wide-web, that is still a staggering number as there are millions of messages and web-pages on the internet. Most of this material is extremely hard

to access as advanced knowledge of computers is required, however it is the youth in most families that know how to use the computer best. Problems arise

when minors left alone on the computer are free to browse some of the most graphic pictures ever taken, or to learn the easy way to make a pipe bomb from

house-hold ingredients. The media has a tendency to magnify certain aspects of

reality while completely forgetting about others. The mass media so far has not

been too kind to the internet. Mainly because television and print magazines view it as a long-term threat encroaching in on their market. The July 3 1995 article of Time magazine featured a cover story labeled " CYBERPORN".

Spanning eight pages the article tries to expose the " red light

district" of the information superhighway. It was the publishing of this

article in a high- profile magazine that sparked the whole cyberporn debate.

When Time published a cover story on Internet pornography a certain amount of

controversy was to be expected. Computer porn, after all, is a subject that stirs strong passions. So does the question of whether free speech on the Internet should be sharply curtailed, as some Senators and Member of Congress

have proposed. But the "flame war" that ensued on the computer networks when the story was published soon gave way to a full-blown and highly

political conflagration. The main focus of discontent was a new study,

" Marketing Pornography on the Information Superhighway", purportedly by a team of researchers at Carnegie Mellon University, which was a centerpiece

of Time's story. In the course of the debate, serious questions have been raised

regarding the study's methodology, the ethics by which its data were gathered

and even its true authorship. Marty Rimm, who wrote it while an undergraduate at

Carnegie Mellon, grossly exaggerated the extent of pornography on the Internet

by conflating findings from private adult-bulletin-board systems that require credit cards for payments (and are off limits to minors) with those from the public networks (which are not). Many of Rimm's statistics, are either misleading or meaningless; for example, the study's now frequently cited claim

that 83. 5 percent of the images stored on the USENET newsgroups are pornographic. A more telling statistic is that pornographic files represent less than one- half of 1 percent of all messages posted on the Internet. Other critics point out that it is impossible to count the number of times those files are downloaded; the network measures only how many people are presented with the

opportunity to download, not how many actually do. Rimm has developed his

credibility problems. When interviewed by Time for the cover story, he refused

to answer questions about his life on the grounds that it would shift attention away from his findings. But quite a bit of detail has emerged, much of it gathered by computer users on the Internet. It turns out that Rimm is no stranger to controversy. In 1981, as a 16-year-old junior at Atlantic City High School, he conducted a survey that purported to show that 64 percent of his school's students had illicitly gambled at the city's casinos. Widely publicized (and strongly criticized by the casinos as inaccurate), the survey inspired the New Jersey legislature to raise the gambling age in casinos from 18 to 21.

According to the Press of Atlantic City, his classmates in 1982 voted Rimm most

likely to be elected President of the U. S. The next year, perhaps presciently, they voted him most likely to overthrow the government. More damaging to Rimm

are two books that he wrote, excerpts of which have begun to circulate on the

Internet. One is a salacious privately published novel, An American Playground,

based on his experience with casinos. The other, also privately published, is

Make Lots of Money". Rimm says it's a satire; others saw it offering practical advice to adult-bulletin-board operators about how to market pornographic images effectively. Neither Carnegie Mellon nor the Georgetown Law

Journal has officially backed away from the study (although the university is forming a committee to look into it). Rimm's faculty adviser, Marvin Sirbu, a professor of engineering and public policy, continues to support him, saying the

research has been deliberately mischaracterized by people with a political agenda. But Sirbu himself has been attacked by Carnegie Mellon colleagues for

not properly supervising his student and for helping him secretly gather data about the pornography-viewing habits of the university's students.

Meanwhile,

some of the researchers listed as part of Rimm's " team" now say their involvement was minimal; at least one of them had asked Rimm to remove his name.

Brian Reid Ph. D who is the director of the Network System Laboratory at Digital

Equipment Corporation is the author of the network measurement software tools

that Rimm used to compile his statistics. He had this to say about the Rimm study: "I have read a preprint of the Rimm study of pornography and I am so distressed by its lack scientific credibility that I don't even know where to begin critiquing it." As a rule, computer-wise citizens of cyberspace tend to be strong civil libertarians and First Amendment absolutists. Some clearly believe that Time, by publicizing the Rimm study, was contributing to a mood of

popular hysteria, sparked by the Christian Coalition and other radical-right groups, that might lead to a crackdown. It would be a shame, however, if the damaging flaws in Rimm's study obscured the larger and more important debate

about hard-core porn on the Internet. So as a response to the hysteria wide-sweeping legislational machinery was put into motion and Senators Exon and

Coats drafted up the infamous Communications Decency Act. Section 502:

"Whoever ... uses any interactive computer service to display in a manner available to a person under 18 years of age, any comment, request, suggestion,

proposal, image, or other communication that, in context, depicts or describes,

in terms patently offensive as measured by contemporary community standards,

States Code, or imprisoned not more than two years...." This act outlaws any material deemed " obscene" and imposes fines up to \$100 000 and prison terms up to two years on anyone who knowingly makes " indecent" material available to children under 18, as directly quoted from section 502. The measure had problems from the start. The key issue to senators like Exon is

whether to classify the internet as a print medium like newspapers, or a broadcast medium like television. Unfortunately it is a communications medium

and should be treated as such. If such legislation was passed to control telephone conversations, many teenagers would get the electric chair at age

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fifteen. The Communications Decency Act never passed, but a line in the telecommunications bill that did pass denounces anything " indecent" being transmitted. The legal ramifications are still being fought over in government as the vague nature of the clause leaves it open to multiple interpretations. As the issue stands now, there are only two real solutions. One

would be the adoption of government controls that would infringe on peoples rights to free speech, but also make the net a safe place to be. The other would

for parents to use filtering software to control what their computer is receiving.