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# Internet predecessor turns 30

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(CNN) -- Although the Internet seems to be in its infancy, its origins date back 30 years and a group of enthusiasts gathered to celebrate the anniversary Thursday.

The UCLA team of graduate students that took the crucial first step of hooking a computer to a switch in 1969 included future Internet leaders like Vinton Cerf, who later helped create the Internet's common language, Internet Protocol - the IP in TCP/IP -- and the late Jonathan Postel, who pioneered its address system.

"If it didn't work, then we couldn't have built the Internet," said Cerf, now a vice president at MCI Worldcom.

Internet proponents gathered Thursday at the University of California at Los Angeles, especially those pioneers who can remember its first days, when it was known as the ARPANET - the Advanced Research Projects Agency Network.

Many of today's Internet users would not be surprised to hear that the forerunner of modern e-mail went wrong the first time around when there was a system failure during the first ever attempt to link two computers, said UCLA Professor Richard Kleinrock, 65. He is credited as the "Father of the Internet." Cerf sometimes gets that honorific tacked to his name, as well.

Kleinrock said that on Oct. 20, 1969, a group of computer scientists at UCLA were about to make history by getting their computer to talk to another one at the Stanford Research Institute in northern California.

"We had a guy sitting at the computer console at UCLA wearing a telephone headset and a microphone, talking to another guy at Stanford. When everything was set up he was going to type the word 'log' and the Stanford computer would automatically add 'in' to complete the word 'login.'

"So our guy typed the 'L' and asked his counterpart at Stanford 'Did you get the 'L' and Stanford replied, 'Got the 'L.' Then they did the same for 'O,' and then the whole system crashed!" Kleinrock said.

But on reflection 30 years later, he said the first message ever sent from one computer to another was symbolic. "Put it into phonetics and you get (h)ello, which is really quite appropriate," he said.

The vital first step in getting a computer to talk to another computer was taken Sept. 2, 1969, when Kleinrock and his team succeeded in hooking up their computer to a refrigerator-sized switch, or router, known as an Interphase Message Processor. "So at



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that time you had a computer talking to a switch for the very first time, and without that you could not have computer talking to computer," he said.

Although the UCLA conference honors Sept. 2 as the birthday of the Internet, some people think the date should be Oct. 20, the first time one computer had actually talked to another. Yet others consider the birthday of the Internet as the first time two complete networks were connected.

Kleinrock himself is not very sure. "You could say that the Internet came to life on either of those dates," he said.

Certainly, no record was made of the Sept. 2 event. "No pictures, no nothing."

## Child of necessity

The Internet, Kleinrock said, was a child of necessity. Funded by the Department of Defense, it was intended as a network to give researchers at selected centers the ability to use each other's computers.

And privacy and pornography controversies notwithstanding, he does not think he and his colleagues created a monster.

"You can anticipate the computer-to-computer communications, you can't anticipate the human-to-human communications," Kleinrock said. "When e-mail came on, that was the first clue that interaction between people was really the killer application."

"You have to weigh the good against the bad," he said. "Is there something we can control? No. Pornography is a good example of that."

Kleinrock said he and his colleagues looked at creating the ARPANET as a technological challenge, not an ethical one.

"Were we thinking about the impact and the ethics? No. Did we try to lay down some codification of how this thing should be used? No. Did we abrogate our responsibility to think about that? Yes.

"We did not think about the potential dangers," he said.

"We talked about bits and bytes and routers and switches. We did not talk about, 'Will little Charlie do his homework on it or will he look at pornography?'"

Kleinrock has no regrets. "Would I do it again? You bet."

*The [Associated Press](#) and [Reuters](#) contributed to this report.*