

Vint Cerf

One of the fathers of the Internet

Cerf was a pivotal figure in developing the technology that established the foundations of the Internet as we know it today.

Early life and education



Born in Connecticut, Cerf enjoyed mathematics and science from an early age.

1943

He studied mathematics on a scholarship at Stanford, taking every computing class he could.

1962

He worked on the ARPANET project at UCLA, meeting his future collaborator, Robert Kahn.

1967

1961

As a teen, he wrote software to analyze tests on Apollo F-1 rocket engines for Rocketdyne.

1965

After graduating he became a systems engineer at IBM, supporting programming language, QUIKTRAN.

1972

He returned to Stanford to teach in the computer science and electrical engineering departments.

1972

The beginnings of the Internet

While teaching at Stanford, Cerf continued engagement with the Advanced Research Projects Agency, which aimed to enhance command and control by linking computer networks together.

Cerf co-developed a protocol called TCP/IP that allowed computers to exchange data through a network of networks for the first time.

"We were blasting open a whole new field... I got drawn into this and never escaped."

1973-82

Creating a 'network of networks'

ARPANET allowed information to be exchanged between diverse computers, but the problem of connecting different networks remained. In 1973, Cerf's colleague from ARPA, Robert Kahn, invited him to work on a new project to address this issue.

Cerf and Kahn developed a new transport layer protocol, TCP, which made it possible for devices in different networks to communicate with one another through a 'network of networks'.

TCP became TCP/IP and UDP/IP to accommodate real-time applications such as packet speech and radar tracking. In 1989 Sir Tim Berners-Lee developed the Hypertext Transport Protocol (HTTP) riding on top of the Internet's TCP/IP, leading to the World Wide Web.

Cerf and Kahn didn't patent their technology - they wanted to reduce barriers to access so it could become an international standard to maximize the number of people who could benefit from it freely.

"The magic of computers is you create a world and you're in charge of it, but then you discover it does what you tell it to do, not always what you want it to do."

1982 - 86

MCI Mail - The further evolution of email

Having worn hearing aids since the mid-1950s, Cerf has frequently chosen to work at companies that have invested in the development of accessible non-auditory communications like email.

In 1982, he joined MCI to develop an email service for them that had the potential to connect to any other commercial email service, Telex, Fax and even postal mail addresses.

January 1, 1983

TCP/IP becomes operational so that networks could now be connected by a universal language. This date is often known as 'the operational birthday of the Internet'.

"I see the Internet as a shared environment where we all have a role to play in keeping it safe."

1986 - 94

Applications of the Internet

Cerf joined CNRI with Robert Kahn in 1986. They explored new applications including Digital Libraries, Digital Object Architectures, Knowledge Robots and gigabit networking. They facilitated the interconnection of MCI Mail to the Internet in 1989, and in that year three commercial Internet services were launched. In 1991, CERN launched the World Wide Web and the MOSAIC Browser was released from the NCSA. By 1995, Netscape Communications had gone public starting the "dot-boom".

Mid-1990s onwards Looking to the future - Google's own Nostradamus

Cerf rejoined MCI in 1994 to help put them into the Internet business. In 2005 he joined Google as vice president and Chief Internet Evangelist. He champions the spread of the Internet and its accessibility and works towards preserving digital materials for future generations. In addition, he works with NASA on the design and development of a Solar System Internet.

He is famous for his predictions on how technology will affect future society, and advocates for corporate and public social responsibility online in order to reduce behaviors harmful to society and its citizens.

1990s onwards A lifetime of recognition

1997

Awarded the National medal of Technology (with Kahn) for "creating and sustaining development of Internet Protocols and continuing to provide leadership in the emerging industry of Internetworking".

2001

Awarded the Charles Stark Draper Prize for 2001 with Kahn, Leonard Kleinrock, and Larry Roberts for their work on the ARPANET and Internet.

2005

Awarded the Presidential Medal of Freedom (with Kahn) for creating software code that has "transformed global commerce, communication and entertainment".

And many more...

Cerf has also won the Japan Prize, Queen Elizabeth Prize for Engineering, Prince of Asturias Prize, the Marconi Prize and the Legion d'Honneur....

