History of the Internet

The fear of artificial intelligence fueled by the modern Internet

There has been considerable discussion about whether artificial intelligence (AI) is or is not an existential threat to humans. The Future of Humanities Institute at Oxford University believes AI is an existential threat, but many scientists who are AI experts are less concerned about it becoming a threat to our existence. But until the Internet matured to what we know today, there was not much serious concern about AI being an existential threat.

A few years ago, I heard about Chat GPT and other Internet powered artificial intelligence engines for the first time. These AI engines had almost all the vast Internet data available to them. They are called large language models (LLMs).

The building of the Internet

Much of the language here was taken directly from the "required several developments" link below.

- October 29, 1969 marks the beginning of the Internet when a computer at UCLA sent a one-word message to Stanford "The message—"LOGIN"—was short and simple, but it crashed the fledgling Advance Research Projects Agency network anyway. The Stanford computer only received the message's first two letters. To get from this not entirely successful beginning of the Internet over fifty years ago to what we all know today required several developments, without which it is highly unlikely that artificial intelligence could take control.

- In 1965, an M.I.T. scientist developed a way of sending information from one computer to another that he called "packet switching." Packet switching breaks data down into blocks, or packets, before sending it to its destination. That way, each packet can take its own route from place to place. Without packet switching, the government's computer network—now known as the ARPAnet—would have been just as vulnerable to enemy attacks as the phone system.By the end of 1969, just four computers were connected to the ARPAnet, but the network grew steadily during the 1970s.

- In 1971, it added the University of Hawaii's ALOHAnet, and two years later it added networks at London's University College and the Royal Radar Establishment in Norway. As packet-switched computer networks multiplied, however, it became more difficult for them to integrate into a single worldwide "internet."

- By the end of the 1970s, a computer scientist named Vinton Cerf had begun to solve this problem by developing a way for all of the computers on all of the world's mini-networks to communicate with one another. He called his invention "Transmission Control Protocol," or TCP. (Later, he added an additional protocol, known as "Internet Protocol." The acronym we

use to refer to these today is TCP/IP.)

- Cerf's protocol transformed the internet into a worldwide network. Throughout the 1980s, researchers and scientists used it to send files and data from one computer to another.

- However, in 1991 the internet changed again. That year, a computer programmer in Switzerland named Tim Berners-Lee introduced the World Wide Web: an internet that was not simply a way to send files from one place to another but was itself a "web" of information that anyone on the Internet could retrieve. Berners-Lee created the Internet that we know today.

- Since then, the internet has changed in many ways. In 1992, a group of students and researchers at the University of Illinois developed a sophisticated browser that they called Mosaic. (It later became Netscape.) Mosaic offered a user-friendly way to search the Web: It allowed users to see words and pictures on the same page for the first time and to navigate using scrollbars and clickable links.

- That same year, Congress decided that the Web could be used for commercial purposes. As a result, companies of all kinds hurried to set up websites of their own, and e-commerce entrepreneurs began to use the internet to sell goods directly to customers.

- More recently, social networking sites like Facebook have become a popular way for people of all ages to stay connected.

This is the World Wide Web we all use today, many times on most days.