

Internet

**1950s**



**Cold War**

2001

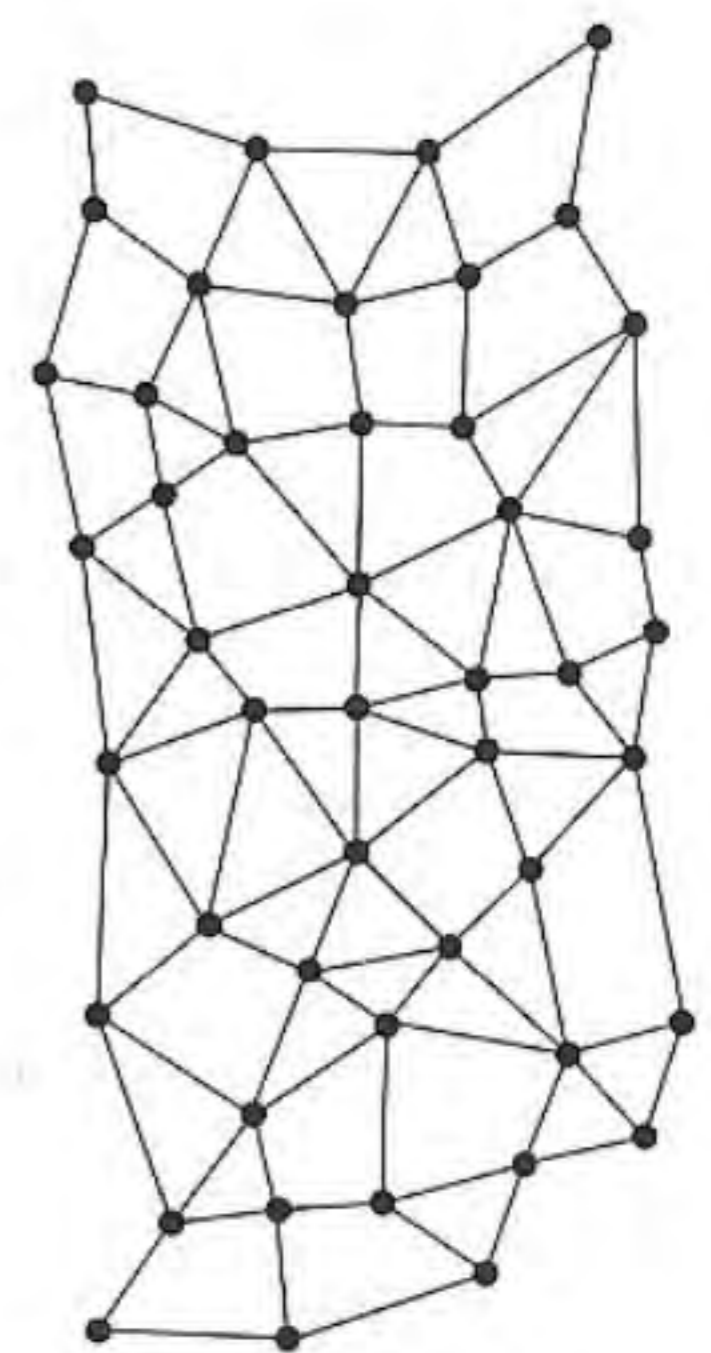
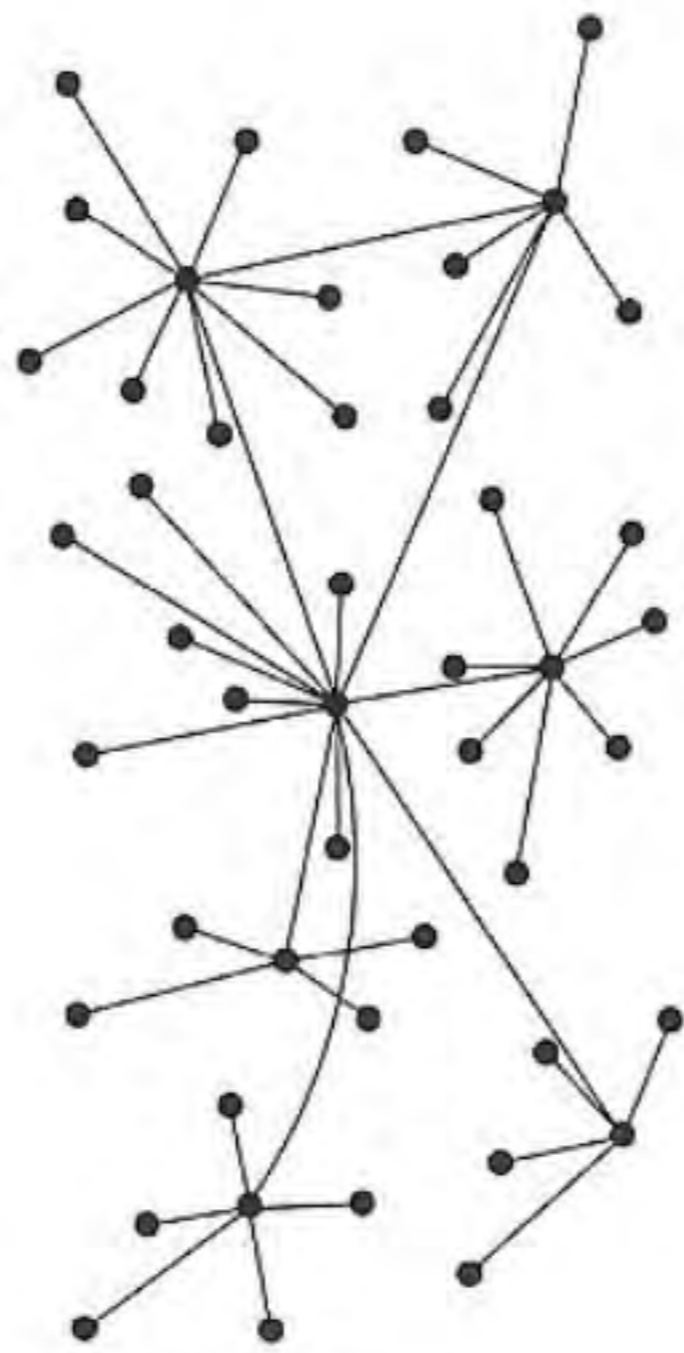
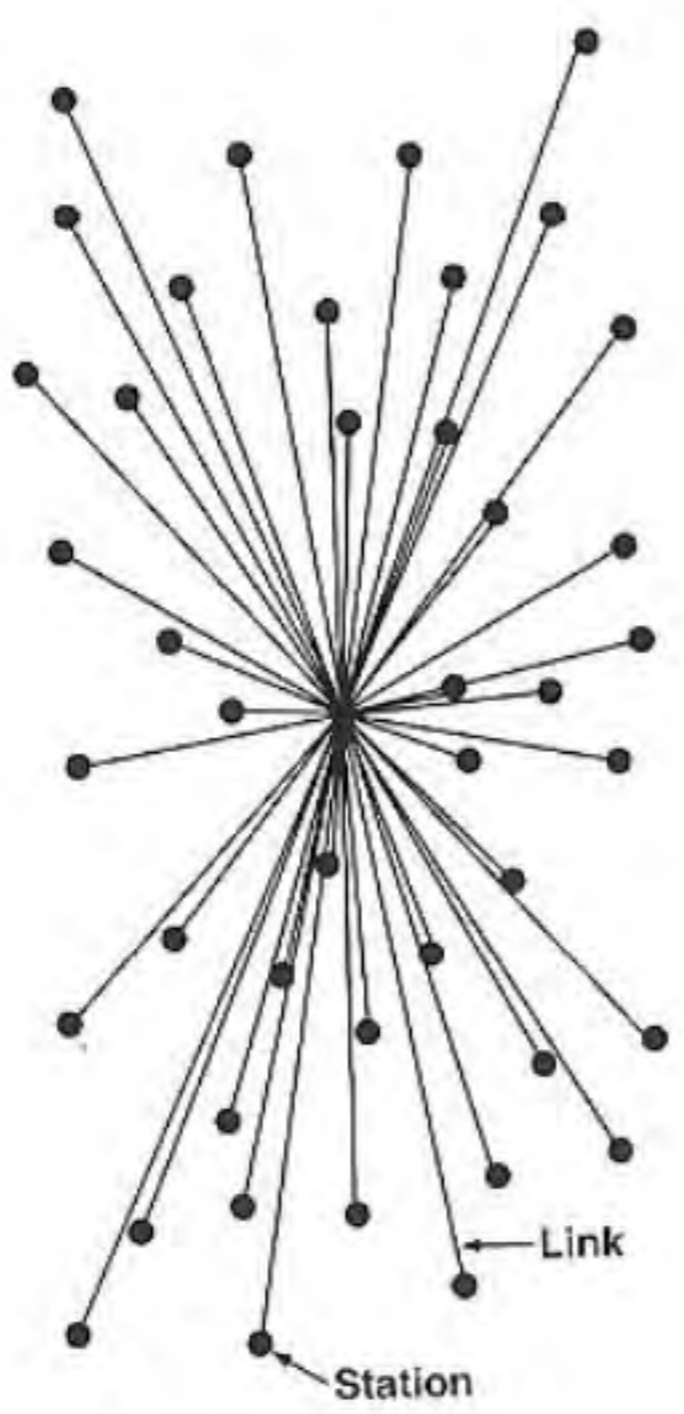
**“While many have debated the origins of the Internet, it’s clear that in many ways it was built to withstand nuclear attack. The Net was designed as a solution to the vulnerability of the military’s centralized system of command and control during the late 1950’s and beyond. For, the argument goes, if there are no central command centers, then there can be no central targets and overall damage is reduced.”**

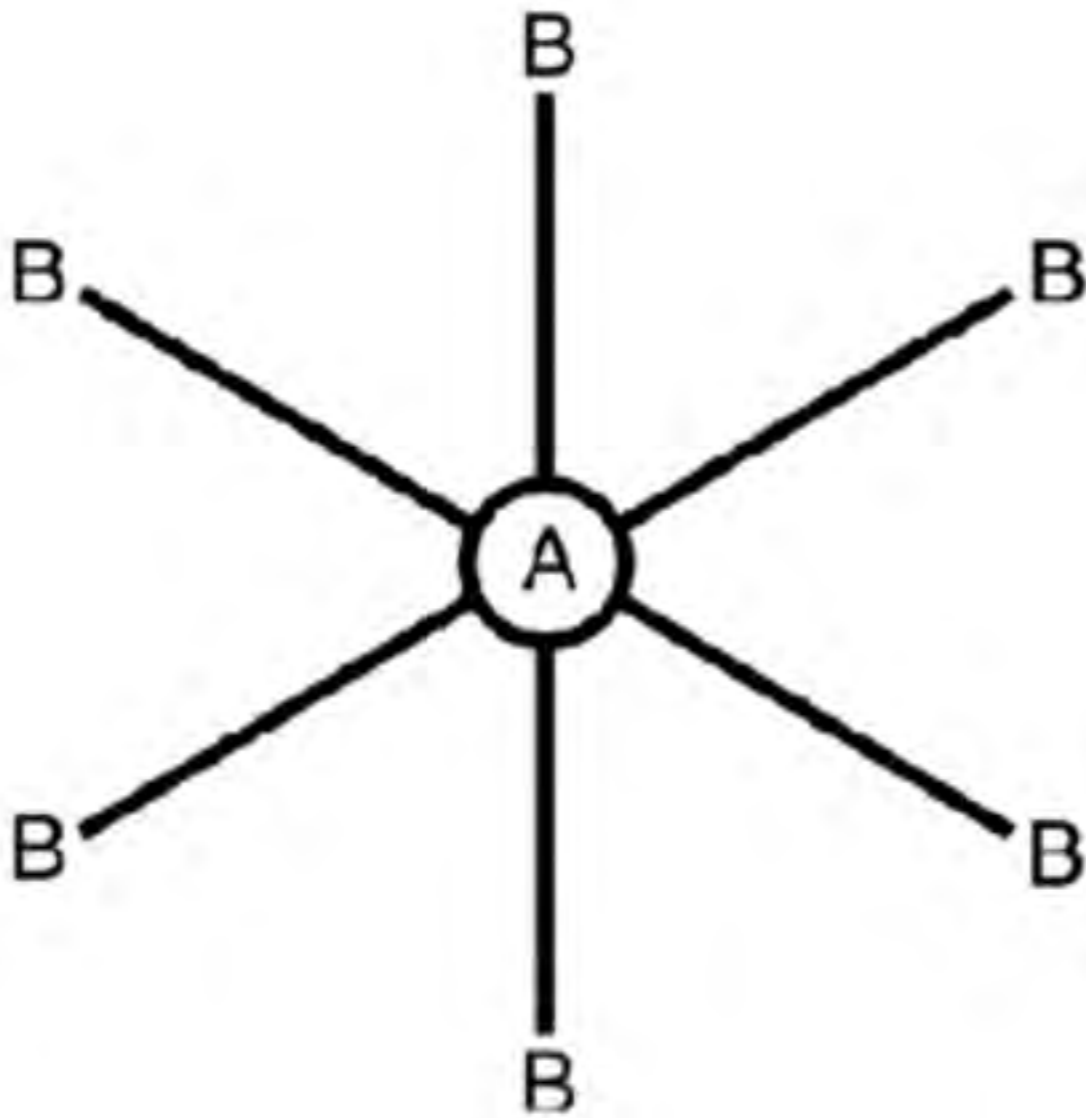
**Alexander Galloway, *Protocol***

**mid-1960s**



**Defense Advanced Research Projects Agency**





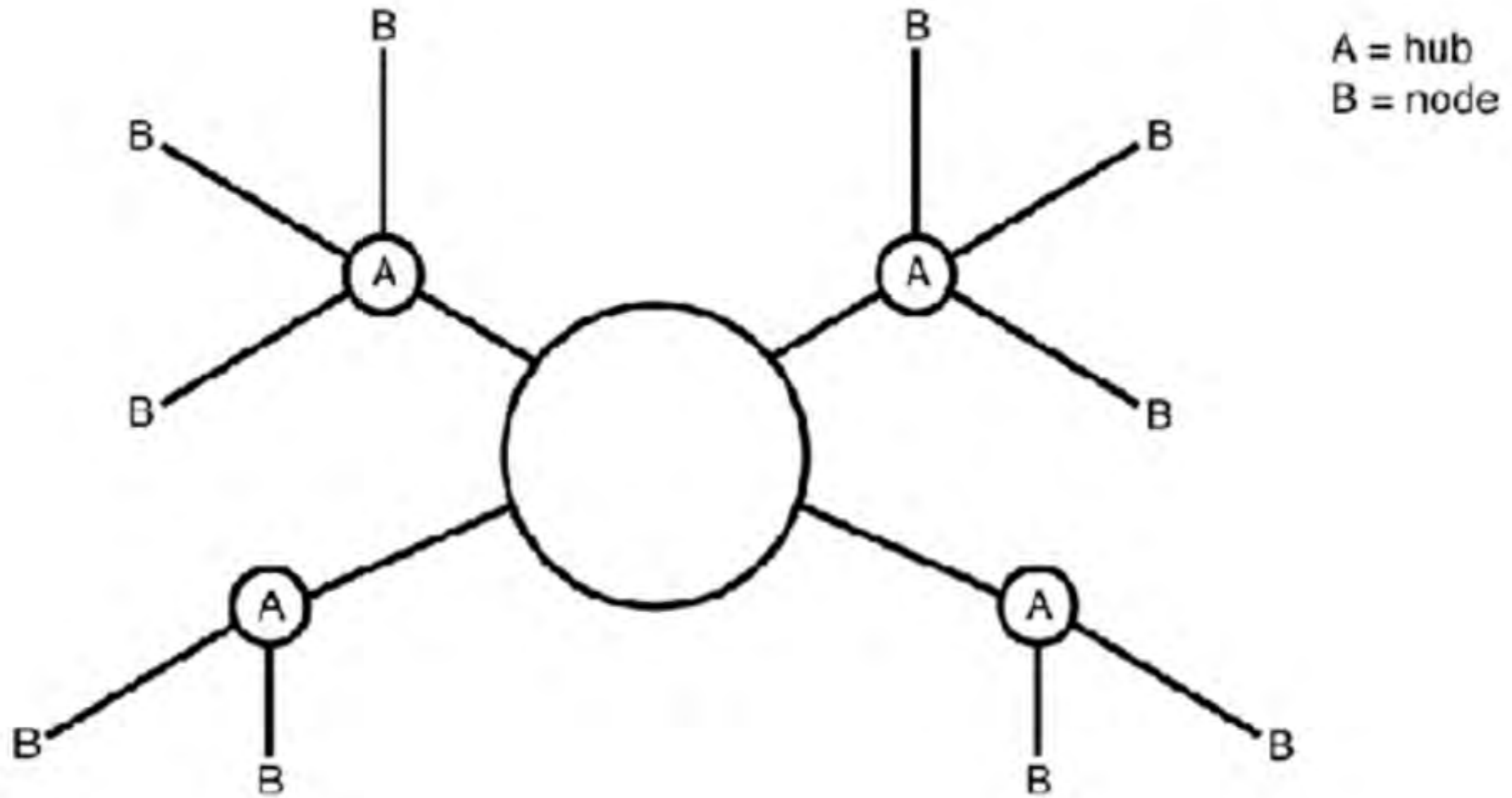
A = hub  
B = node

**Centralized Network**

Interior View of Cell House, new Illinois State Penitentiary at Stateville, near Joliet, Ill.—23

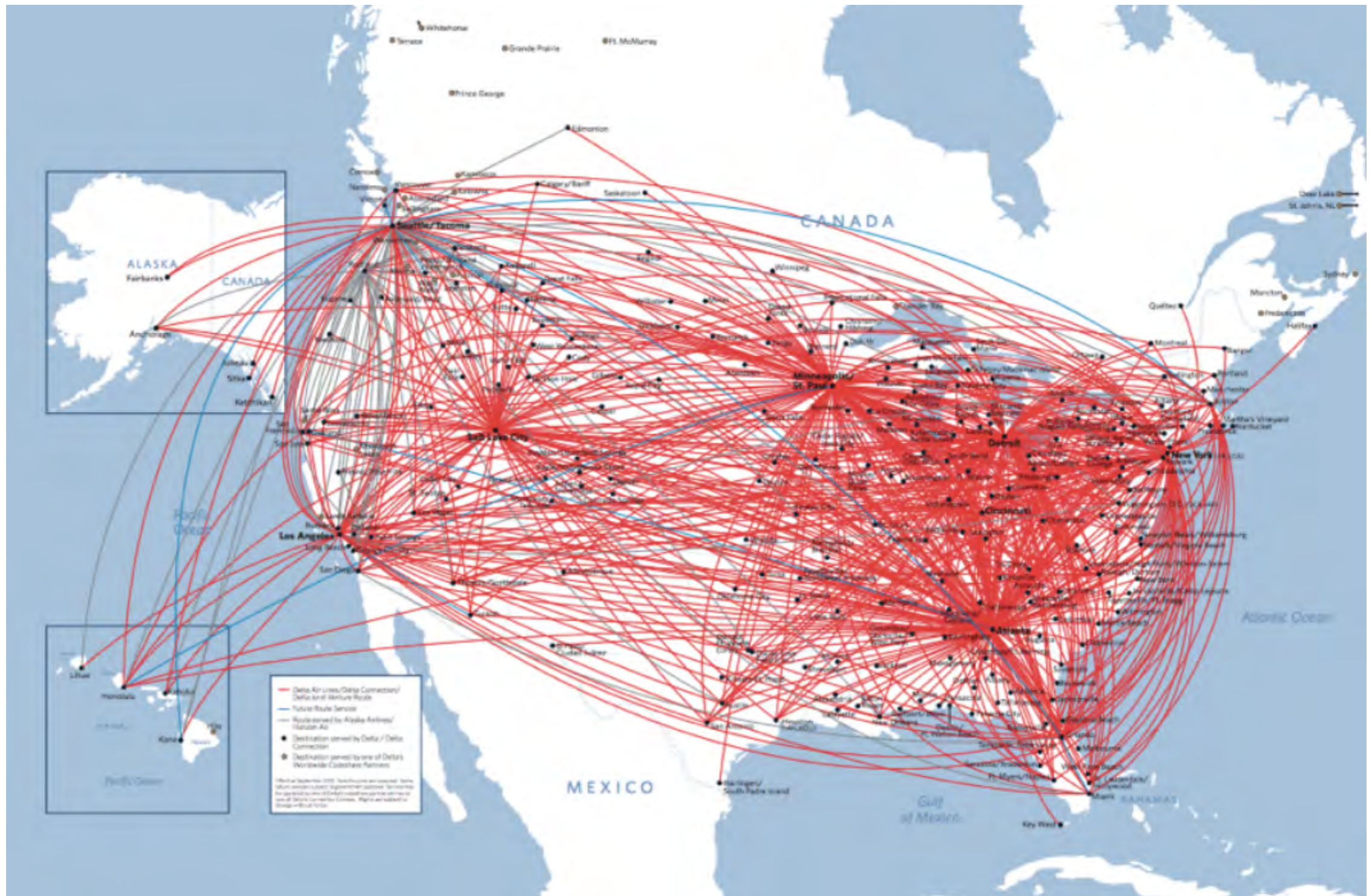


**Panopticon**

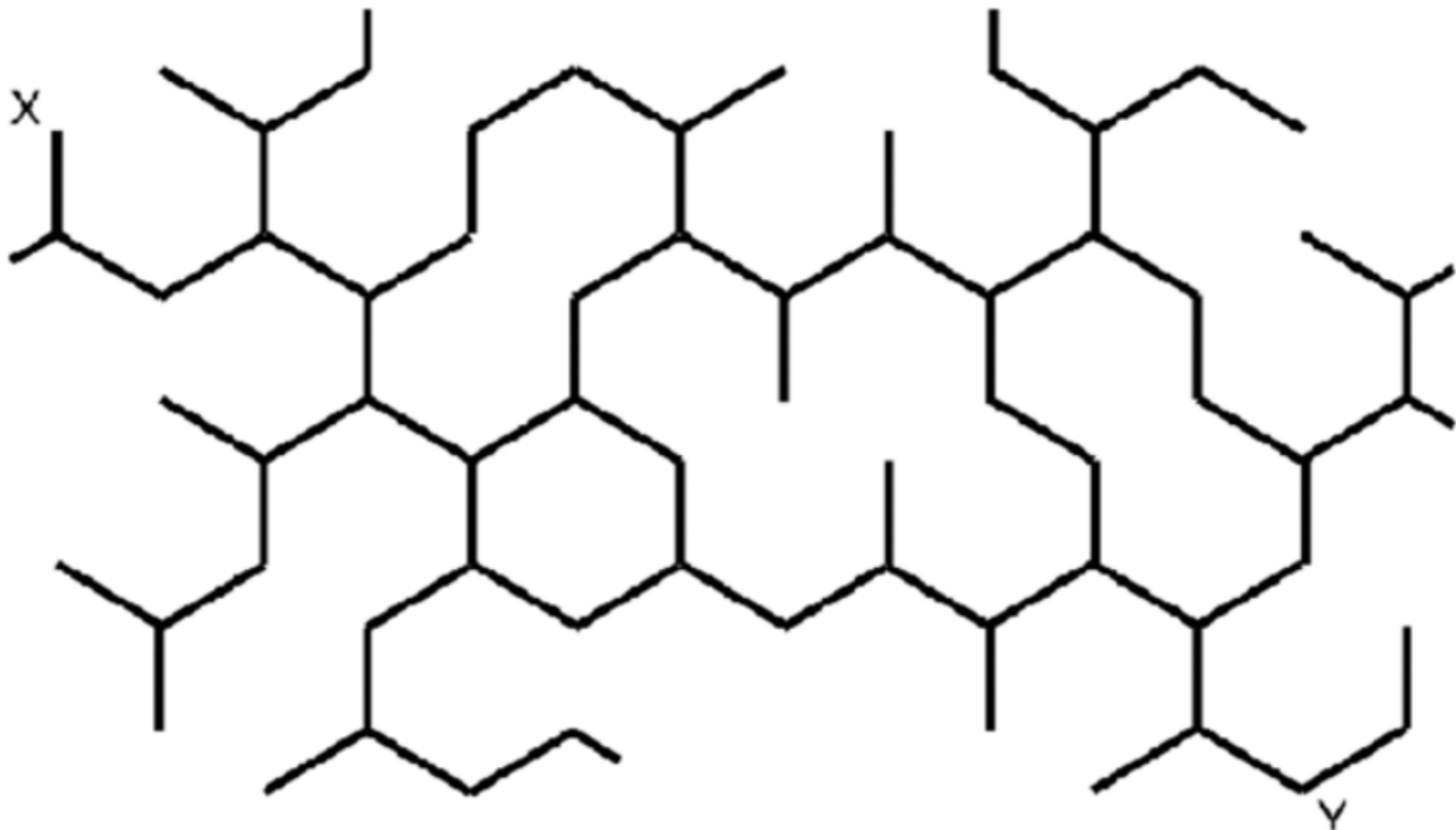


**Decentralized Network**





**Air travel routes**



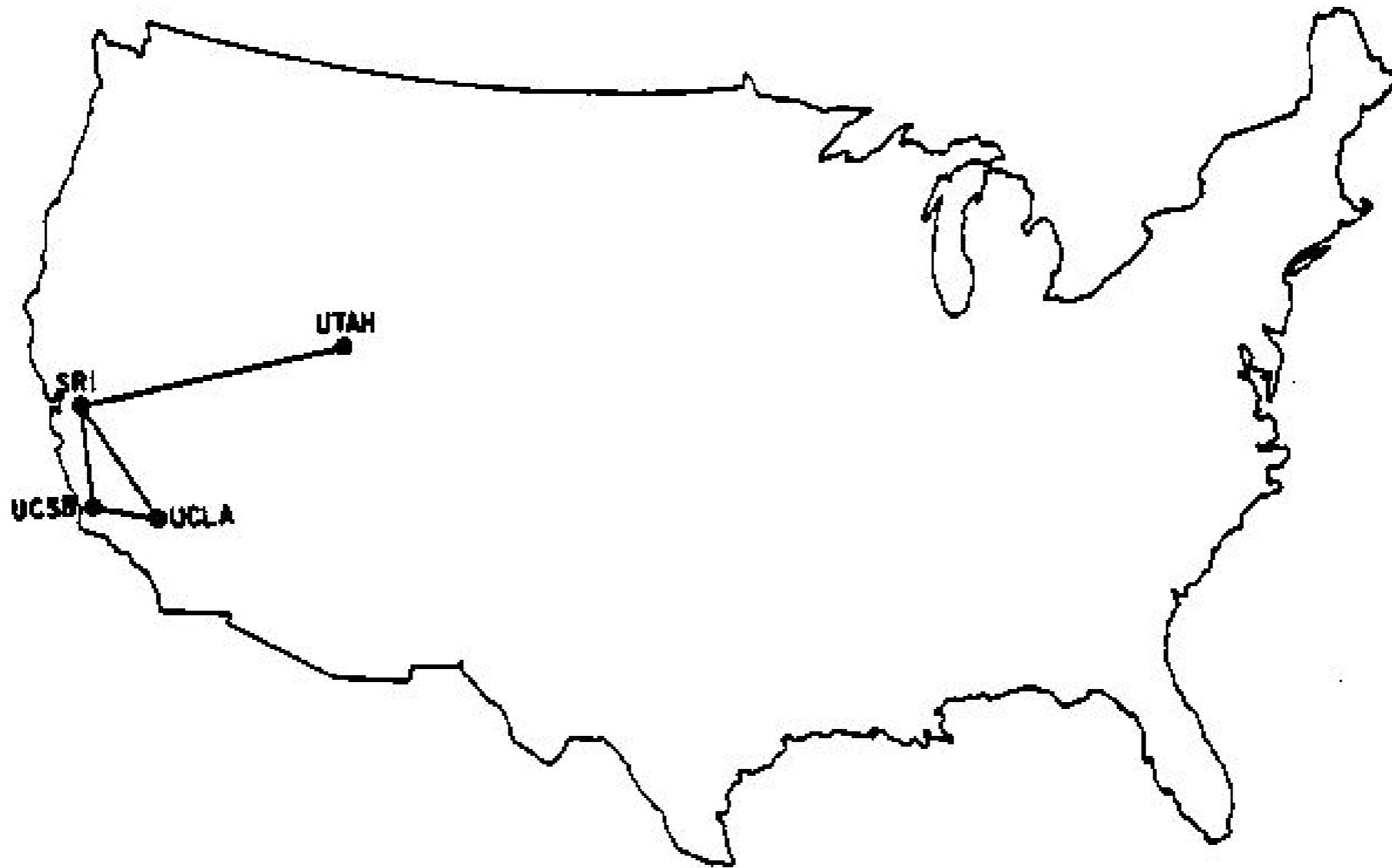
**Distributed Network**

## THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS



# US Highway System

1969



ARPAnet

1969

29 OCT 69	100	LOADED OP. PROGRAM CSK EOIR BEN BARKER BRV
22:30		Talked to SRI CSK Host to Host
		Left op. program CSK running after sending a host dead message to imp.

LO

**1971**



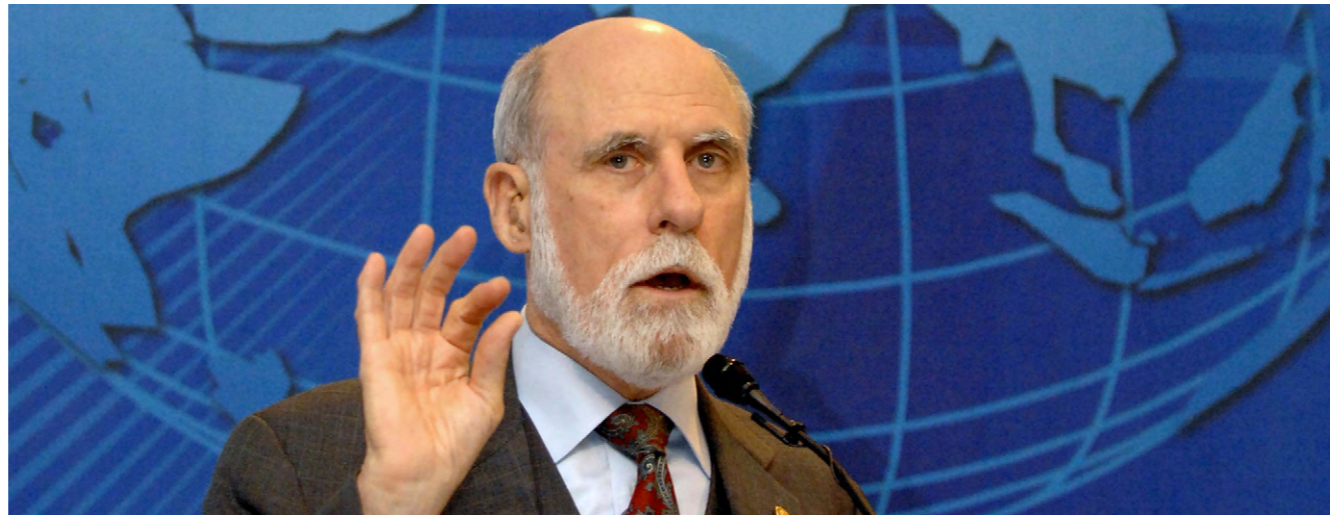
**Ray Tomlinson**

1885



at

**1971**



**Vinton Cerf**



**1980s**

**IP**

**Internet Protocol**

**1980s**

**TCP**

**Transmission Control Protocol**

**1990s**

**HTTP**

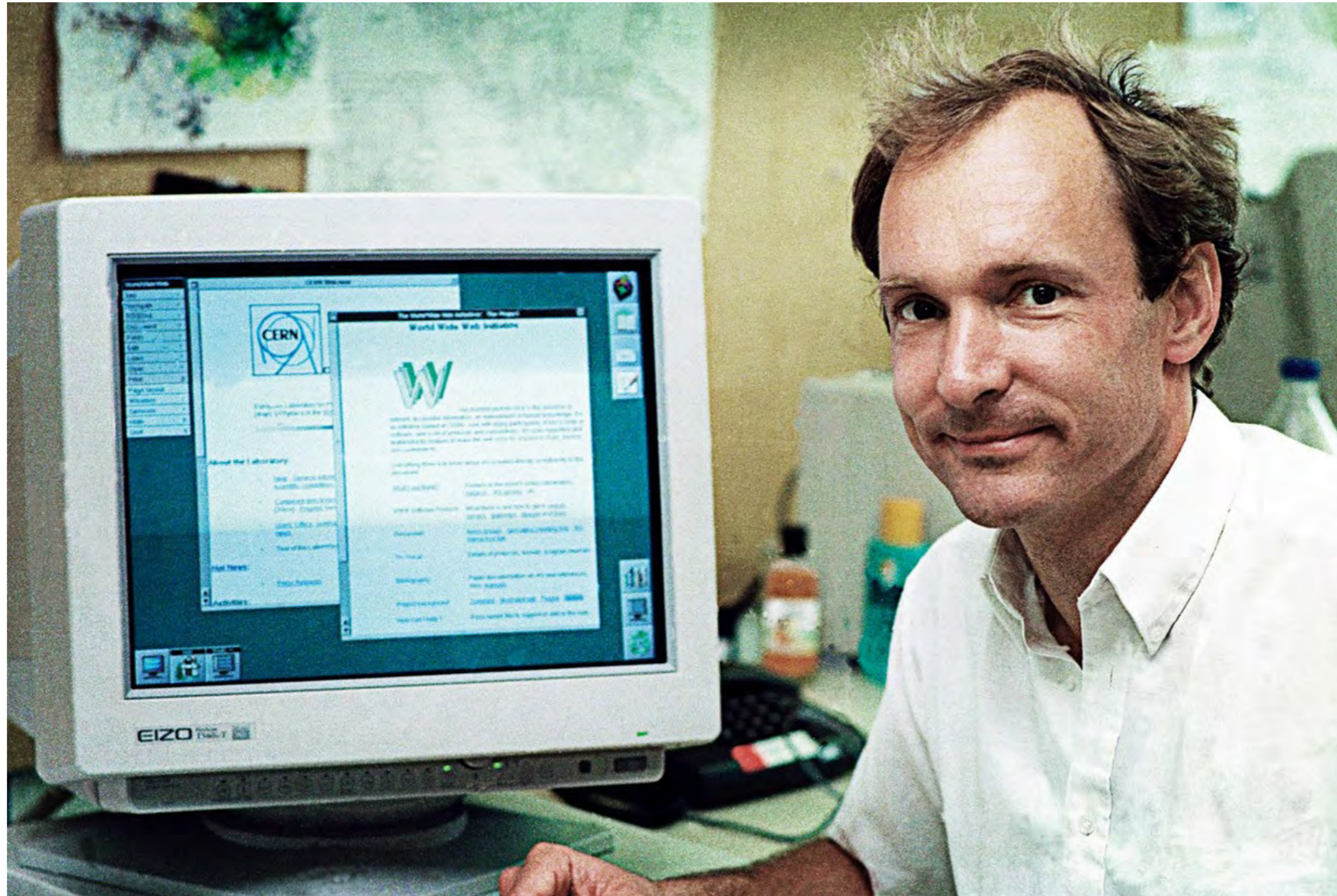
**Hypertext Transfer Protocol**

**1990s**

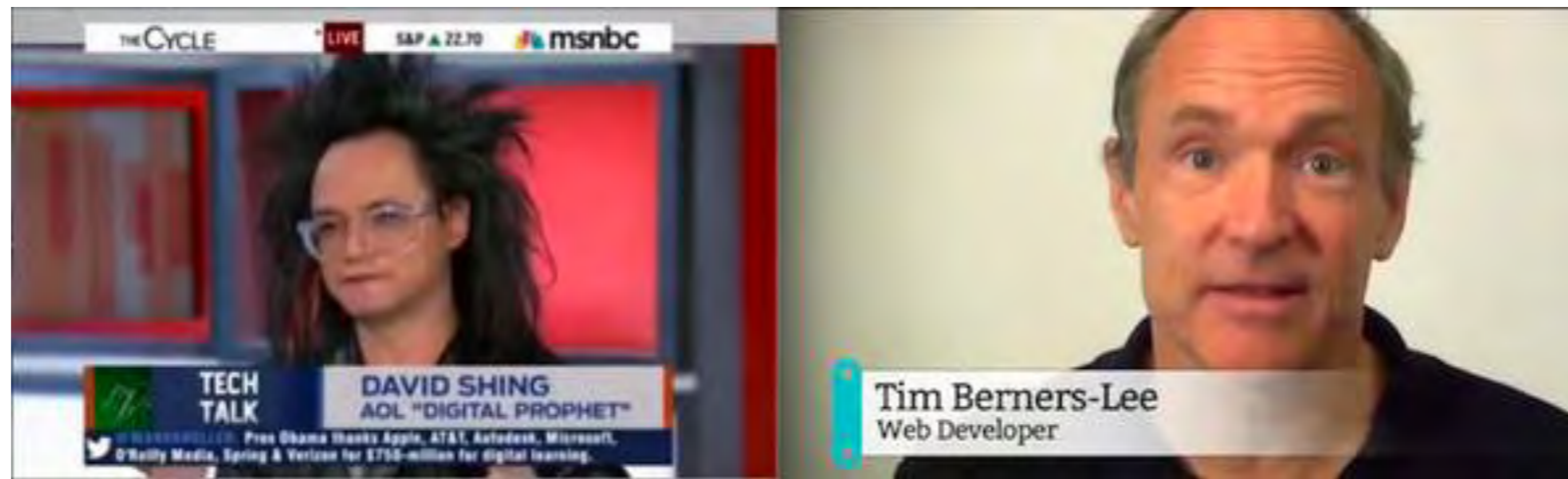


**Hypertext Transfer Protocol**

**1991**



**Tim Berners-Lee**

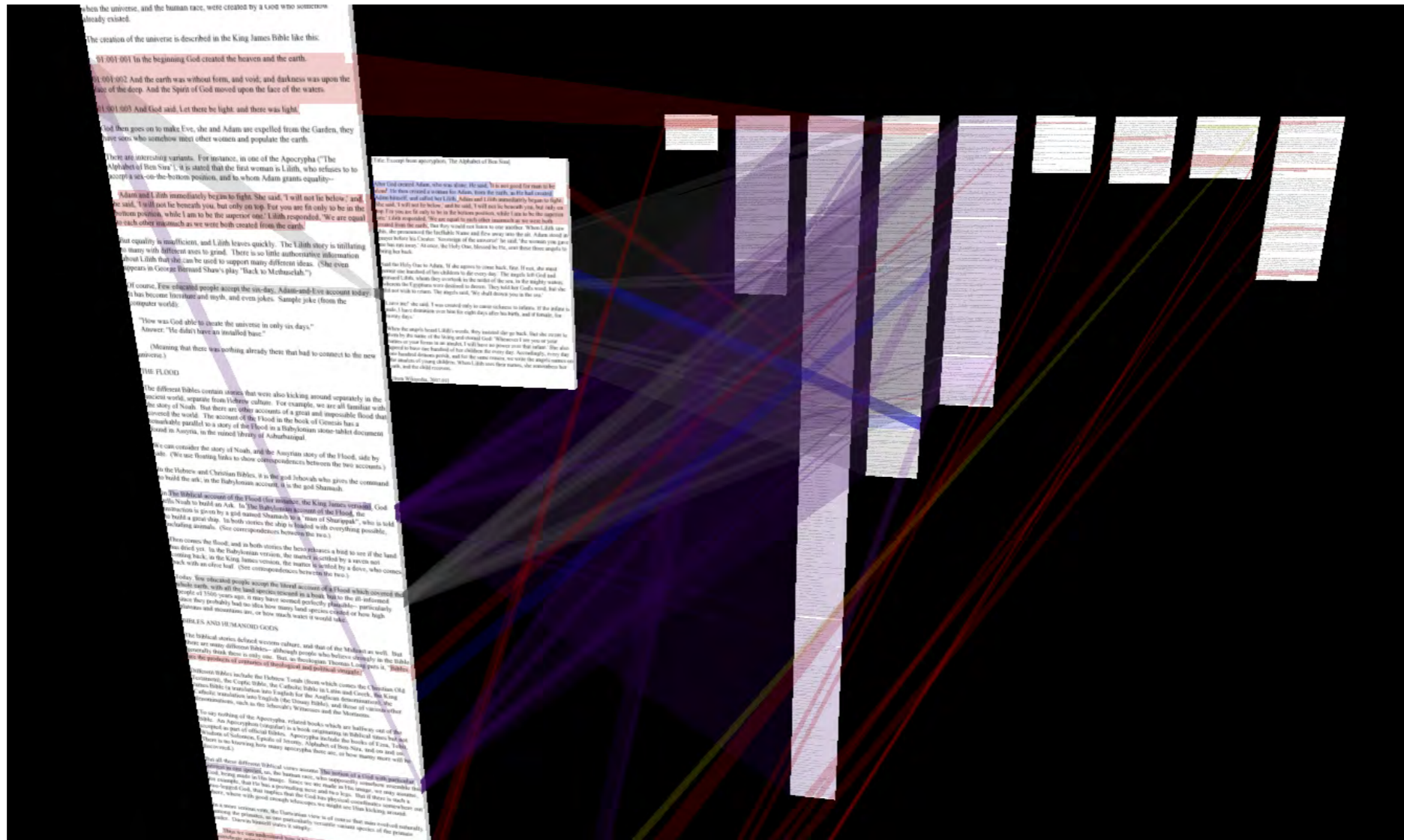


**1960**



**Ted Nelson**

1997



XanaduSpace



2014

**“The computer world is not just technicality and razzle-dazzle. It is a continual war over software politics and paradigms. With ideas which are still radical, WE FIGHT ON. We expect vindication, the last laugh, and a redefinition of electronic literature—and at the least, that our format will join the others as a standard that does not imitate paper.”**

Xanadu

1990s



America Online

**1994**



**e-commerce**

# Key Terms

# Host

A host is a computer on the network that can communicate with other computers. Think of it as a single node in the aforementioned diagrams.

When a host sends information, it's called a **server**.

When a host receives information, it's called a **client**.

# Protocol

Protocol is a way in which information is passed from one computer to another. It's like the language that all hosts (computers on the network) speak.

**HTTP** — hypertext transfer protocol

**FTP** — file transfer protocol

**IP** — internet protocol

**TCP** — transmission control protocol

# DNS

DNS stands for “Domain Name Service.” Every website is actually a number, but DNS lets us refer to these numbers with language.

*example:*

allmyfriendsatonce.com = 198.74.60.197

# All websites need a...

## 1) Host (a computer always connected to the Internet)

Such as dreamhost.com, mediatemple.com, godaddy.com, etc.  
We are using Github Pages! These are called “hosting providers.”

## 2) Domain (DNS)

Such as name.com, iwantmyname.com, namecheap.com, etc.  
These are called “domain name registrars.”