1436

Johannes Gutenberg

Johannes Gutenberg

German inventor, invented the movable type printing press.

Opened up the dissemination of information (knowledge) to the common people.

20th century:

- Radio
- Telephone
- TV

Internet Influence

- **Influence on Society**
  - Anonymity VS Authenticity
  - Staying "connected"
- **Working from home**
- **Information Availability & Speed**
- **Commerce**
  - Shopping from Home
  - Business to Business

"On the Internet, nobody knows you're a dog."

- **Isolation versus Socialization**
- **High speed communication (chat) versus authentic sharing**
- **More time on the web = less face time with other people**

- **Carnegie-Mellon "Home Net Study" 2001**
- **Stanford Institute for the Quantitative Study of Society (SIQSS) 2000**

- **Both studies concluded**
  - Email is the most popular net activity
  - Web enables more work at home
  - Less quality face-to-face time with friends and family
  - Less attention to "traditional" media (TV, newspapers, radio)

- **Internet effect is paradoxical –**
  - Enhances communication
  - Causes isolation

- **Replaces strong social ties with weak ones**

- **How Reliable is the internet???**

- **How about Mobile / Smartphone technology?**

- **How has it further affected**
  - Socialization
  - Interpersonal communication
  - Interpersonal relationships
  - Rapid information retrieval

Regulation

- **Who Is In Charge of the Internet?**

  - IANA – manages DNS and IP addresses

  - ICANN – maintains the DNS databases

  - IEEE, IETF – set standards

- **Role of the ISP**

  – Provide connectivity to the internet

  – Provide DNS lookup services

A Bit of History

- DARPA, ARPANET (Defense Advanced Research Projects Agency)
- 1960's – concept of packet switching via NCP
- 1969 – four university computers connected
- NSFNET branched away from ARPANET
- TCP/IP replaced NCP in 1983
- Designed to be a connection of independent autonomous networks
- Founded on OPEN publication & sharing
- Open to RFC (requests for comments)

"The Internet is as much a collection of communities as a collection of technologies, and its success is largely attributable to both satisfying basic community needs as well as utilizing the community in an effective way to push the infrastructure forward. This community spirit has a long history beginning with the early ARPANET. The early ARPANET researchers worked as a close-knit community to accomplish the initial demonstrations of packet switching technology described earlier."

https://www.internetsociety.org/internet/history-internet/brief-history-internet/

- **FCC – Federal Communication Commission**

  – Formed in 1934 to oversee radio communications

  – Governance of "spectrum" (frequencies)

  – Support competition for the benefit of consumers

  – Members appointed by the President

Net Neutrality

Definition:

Net neutrality rules [require] ISPs to connect users to all lawful

content on the internet equally, without giving preferential

treatment to certain sites or services.

August 2008 – FCC Chairman Kevin Martin stated

".. set a precedent that Internet providers, and indeed all communications companies, could not prevent customers from using their networks the way they see fit."

December 2010 –

- – Transparency
- – No Blocking
- – No Discrimination

February 2015 – FCC ruled in favor of net neutrality by applying Title II (common carrier) of the Communications Act of 1934 and Section 706 of the Telecommunications act of 1996 to the Internet.

Current State

- **2014 - Ajit Vaderaj Pai appointed to FCC by Barak Obama**

- **January 2017, Made chairman by Donald Trump**

- **April 2017 , Pai proposed an end to Net Neutrality**

  – Pai stated that he planned to "modernize" FCC policies to "match the reality of the modern marketplace"

- **Scheduled a vote (FCC members) on December 14, 2017 whether or not to repeal the policy**

Net Neutrality

Pros & Cons

- "Common carrier" (Title II of 1934 act) status delivers equal access to ALL regardless of their use

- Content providers (like NetFlix) could be charged by ISPs for faster throughput. Such charges would be passed along to consumers.

- Education relies on internet connectivity – and should not be affected by an ISP's profit motives

- The FCC cannot enforce neutrality as long as ISPs are not common carriers

- Growth in infrastructure is driven by private corporations motivated by profit

- Don't interfere with the free market

Net Neutrality

Further Reading

- https://www.publicknowledge.org/issues/net-neutrality

- https://www.savetheinternet.com/net-neutrality-what-you-need-know-now

- https://www.aclu.org/issues/free-speech/internet-speech/what-net-neutrality