



# *Internet*

PATHFINDERS HONOUR 2020  
BY THOMAS RADOSH



## *About me*

- Live near Newbold College in England
- Married to Anna
- Youth Leader at Newbold Church with my wife
- Been interested in technology since very early age

*What are we going to be talking about?*

- What is the Internet and its history
- What is World Wide Web, Email, Chat Room, Social Media etc
- What are the key terms associated with internet?
- What are Viruses – no, not Corona, the computer viruses, and how to best protect yourself against them
- Question time



*What will you know  
by the end of it?*

- Define the following terms:
  - Internet
  - World Wide Web
  - Chat Room
  - Download
  - Upload
  - Website
  - Virus
- Know the history of Internet
- Know why Antivirus are important
- Know how filter ware/parental controls help protect your family
- Have ability to navigate your way around the internet
- Have ability to use email

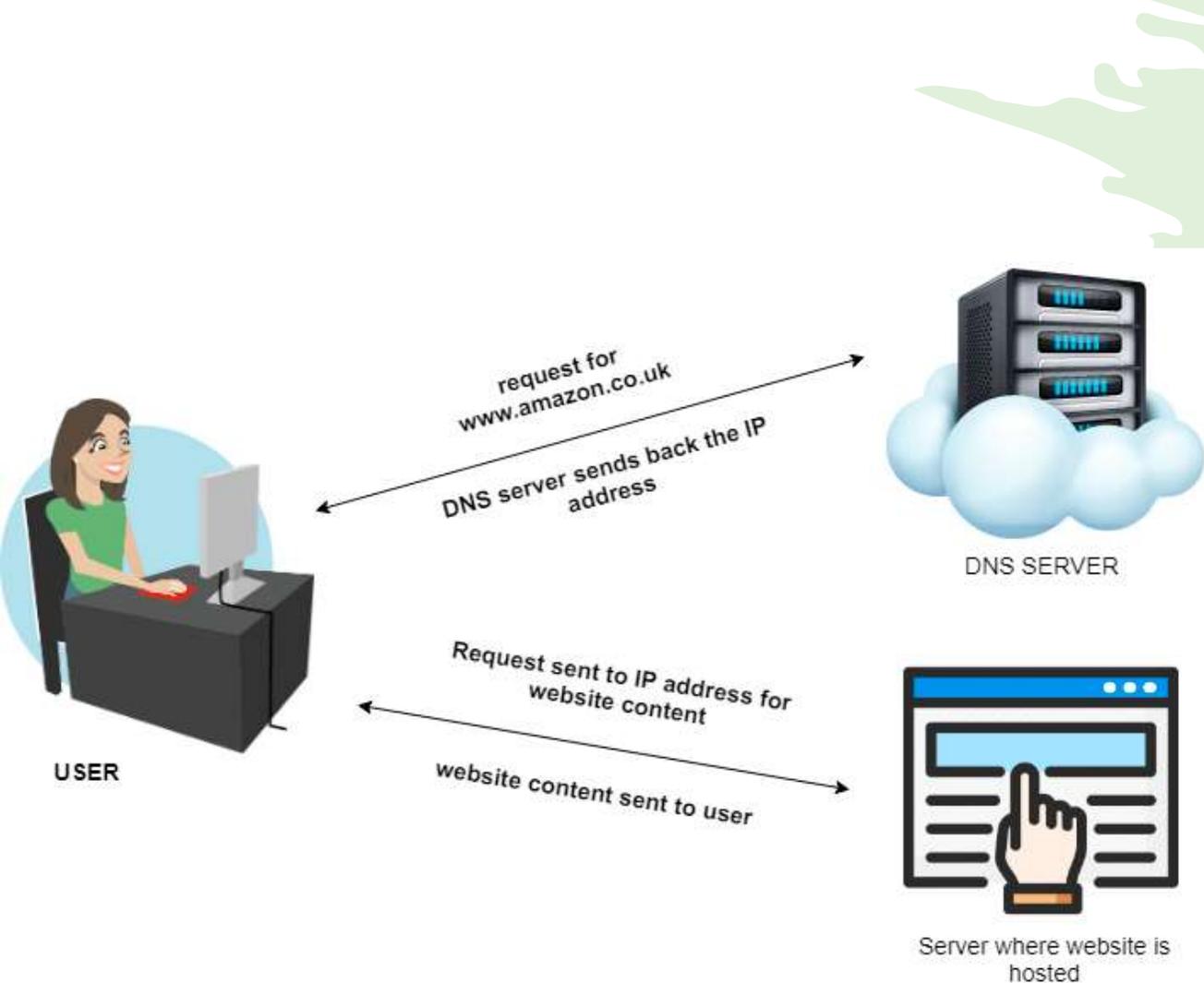




# Beginning of Internet

- Internet is a system of interconnected networks of computers, and network is interconnection of computers
- **1969** – Internet was originally called ARPANET and it was setup by US Military to share data between separate locations





- **1981** – Internet becomes a name
- **1984** – DNS introduced
- **DNS** – Domain Name Server – translate address like: [www.google.com](http://www.google.com) to a computer understood address: 10.11.12.13
- Computer communicate using the **IPv4** or **IPv6** addresses
- **1995** – Dial-up internet access launches

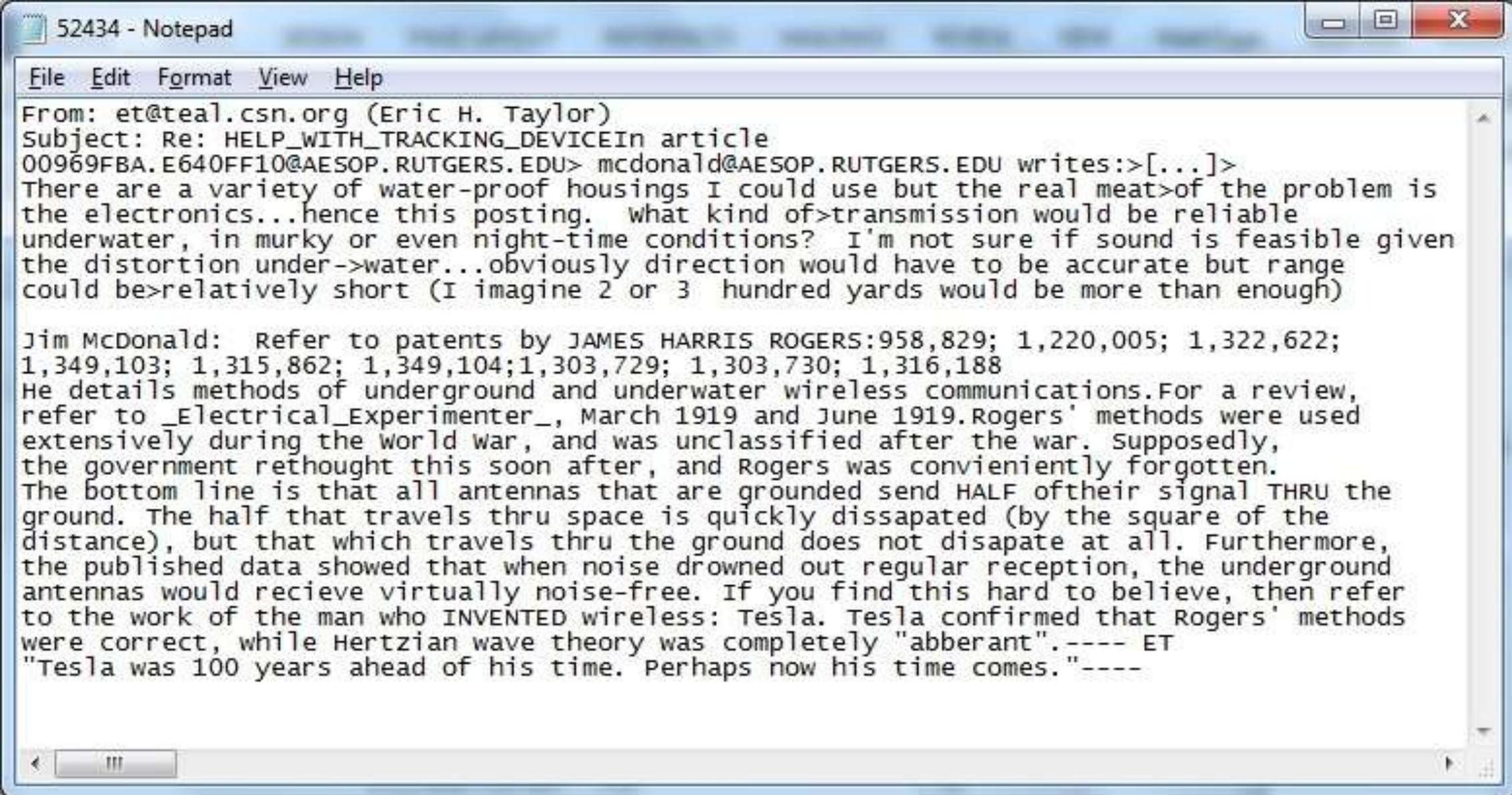




What came first e-mail or website?

- **1972** – first email was sent
- **1990** – first website created
- E-mail is built from name and location separated by @ known as monkey in some languages
- Websites language HTML gets developed in 1990 - before that, all content is text only





*Text Only Internet*



```
xterm
#<<<>>> Lynx (web browser) - Wikipedia, the free encyclopedia (p1 of 5)
#copyright

Your continued donations keep Wikipedia running!

Lynx (web browser)
From Wikipedia, the free encyclopedia

Jump to: navigation, search

CAPTION: Lynx

Wikipedia Main Page displayed in Lynx
Wikipedia Main Page displayed in Lynx
Maintainer: Thomas Dickey
Stable release: 2.8.5 (February 4, 2004) [[+/-]]
Preview release: 2.8.6 (?) [[+/-]]
OS: Cross-platform
Use: web browser
License: GPL
Website: lynx.isc.org

Lynx is a text-only Web browser and Internet Gopher client for use on cursor-addressable, character cell terminals.

Browsing in Lynx consists of highlighting the chosen link using cursor keys, or having all links on a page numbered and entering the chosen link's number. Current versions support SSL and many HTML features. Tables are linearized (scrunched together one cell after another without tabular structure), while frames are identified by name and can be explored as if they were separate pages.

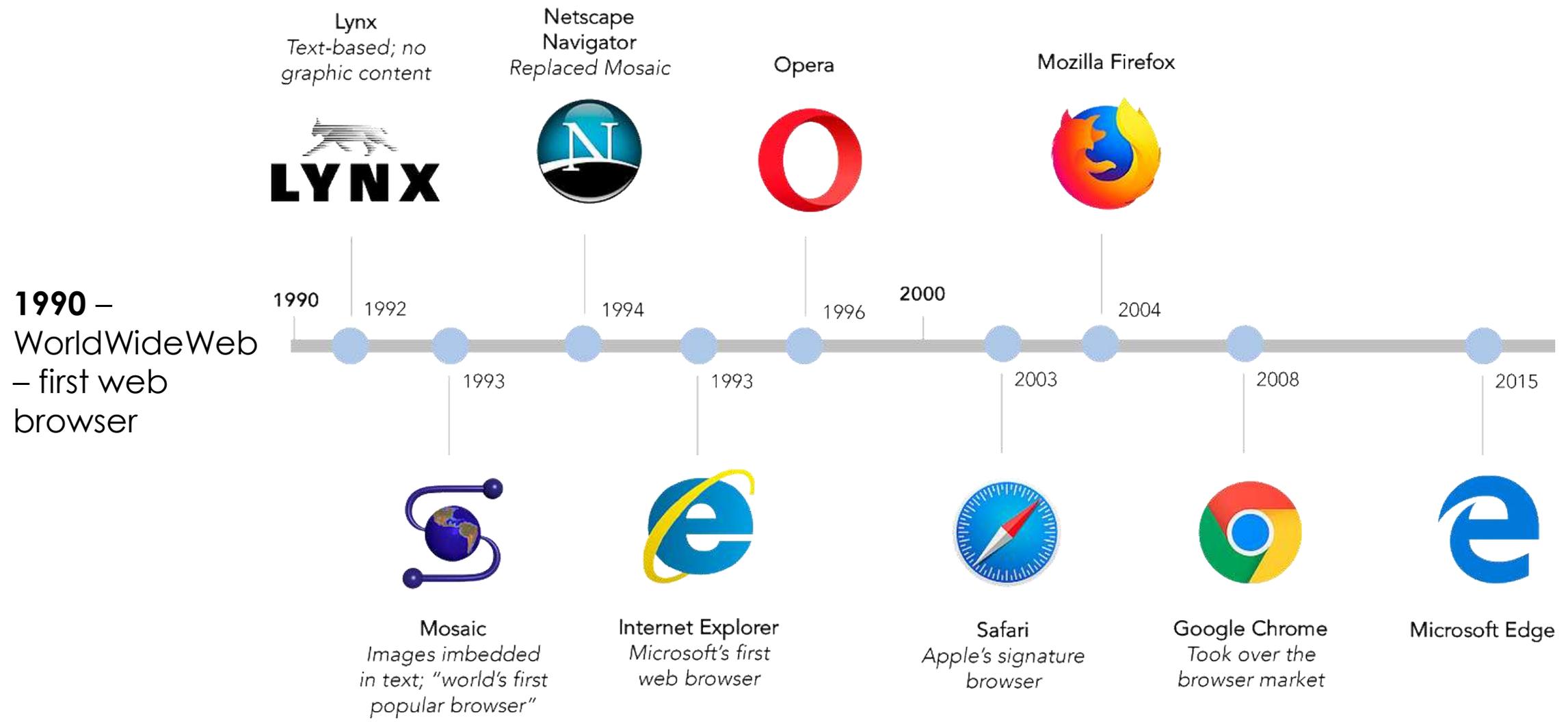
Lynx is a product of the Distributed Computing Group within Academic Computing Services of the University of Kansas, and was initially developed in 1992 by a team of students at the university (Lou Montulli, Michael Grobe and Charles Rezac) as a hypertext browser used solely to distribute campus information as part of a Campus-Wide Information Server. In 1993 Montulli added an Internet interface and released a new version (2.0) of the browser [1] [2] [3].

more- http://en.wikipedia.org/wiki/Image:Lynx_228web_browser229.png
```

# Lynx Browser



# History of web browsers



*Your favourite websites when  
they first launched*





## Welcome to Amazon.com Books!

*One million titles,  
consistently low prices.*

(If you explore just one thing, make it our personal notification service. We think it's very cool!)

### SPOTLIGHT! -- AUGUST 16TH

These are the books we love, offered at Amazon.com low prices. The spotlight moves EVERY day so please come often.

### ONE MILLION TITLES

Search Amazon.com's [million title catalog](#) by author, subject, title, keyword, and more... Or take a look at the [books we recommend](#) in over 20 categories... Check out our [customer reviews](#) and the [award winners](#) from the Hugo and Nebula to the Pulitzer and Nobel... and [bestsellers](#) are 30% off the publishers list...

### EYES & EDITORS, A PERSONAL NOTIFICATION SERVICE

Like to know when that book you want comes out in paperback or when your favorite author releases a new title? Eyes, our tireless, automated search agent, will send you mail. Meanwhile, our human editors are busy previewing galleys and reading advance reviews. They can let you know when especially wonderful works are published in particular genres or subject areas. Come in, [meet Eyes](#), and have it all explained.

### YOUR ACCOUNT

Check the status of your orders or change the email address and password you have on file with us. Please note that you **do not** need an account to use the store. The first time you place an order, you will be given the opportunity to create an account.

Amazon  
-  
1995



# Google!

B E T A

Search the web using Google!

Google Search

I'm feeling lucky

Special Searches  
[Stanford Search](#)  
[Linux Search](#)

[Help!](#)  
[About Google!](#)  
[Company Info](#)  
[Google! Logos](#)

Get Google!  
updates monthly:

your e-mail

Subscribe

[Archive](#)

Copyright ©1998 Google Inc.

Google  
-  
1996





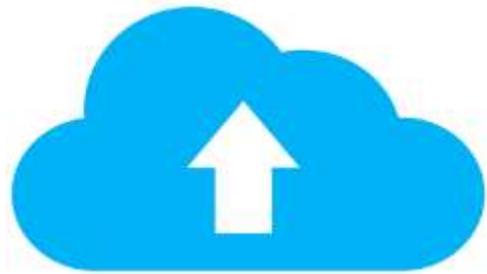
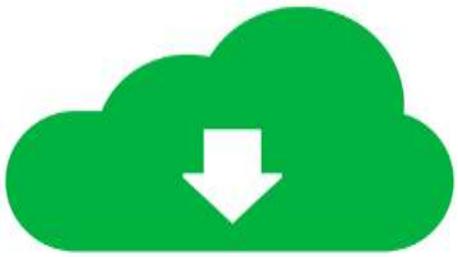
Facebook  
-  
2004





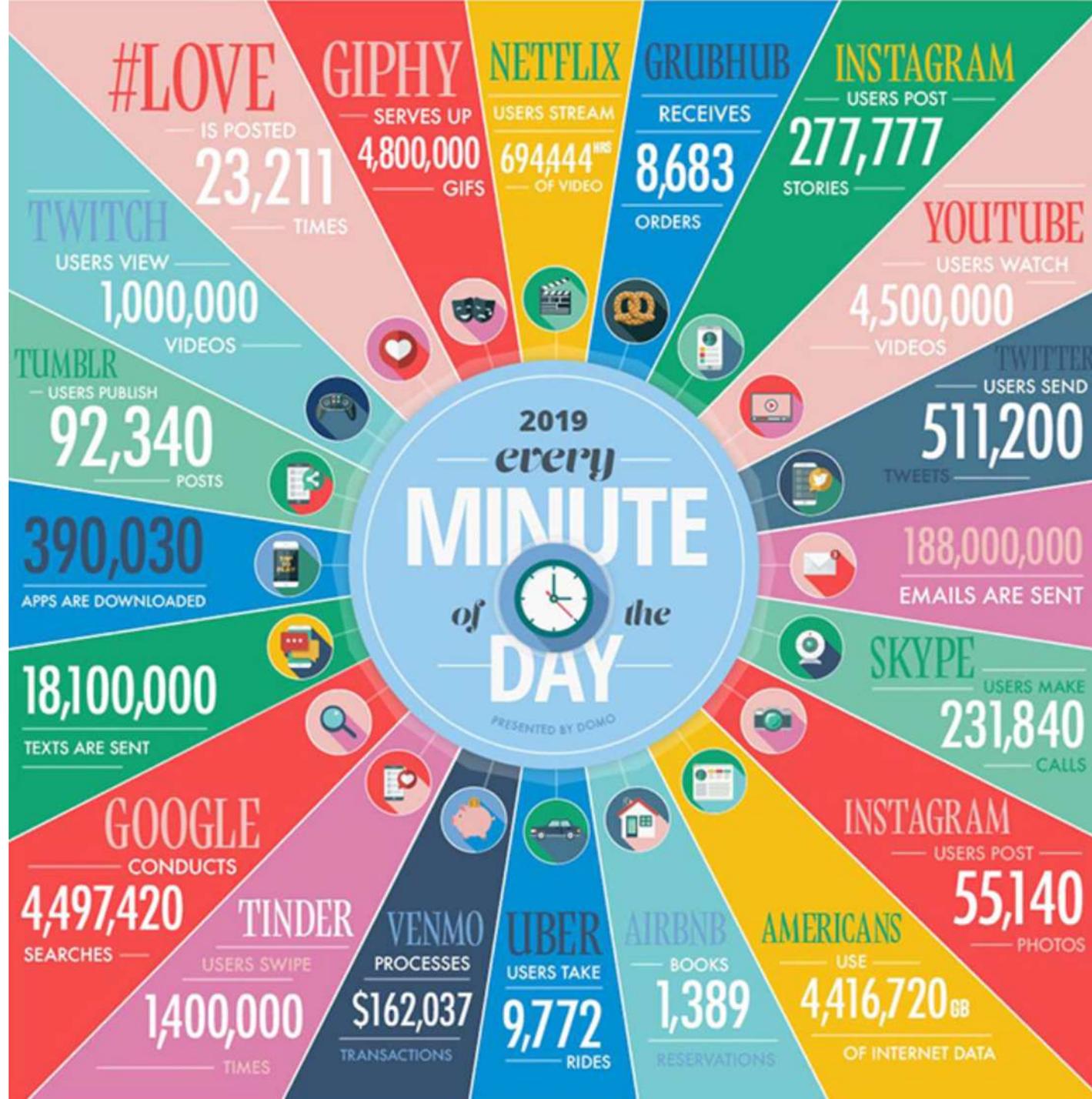
*YouTube*  
-  
*2005*





- Key network terminology
  - Download – the speed that we can be pulling data **FROM** internet
  - Upload – the speed that you can be pushing data **TO** internet
- What makes internet today?
  - Web browsers
  - E-mails
  - Instant messaging
  - Social network
  - Streaming







## Virus and security

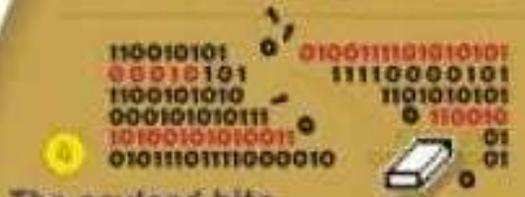
- **1971** – the very first virus - it would copy from one machine to another and fill up the disk space
- **November 1988** – first virus that spread extensively - "Brian" – it was an accident – the person tried to see how large is the internet, took 15h to spread to almost all machines on the internet
- Viruses are programs that do something bad on your machine. What could be the bad things that can happen on computer?



## How Viruses Work

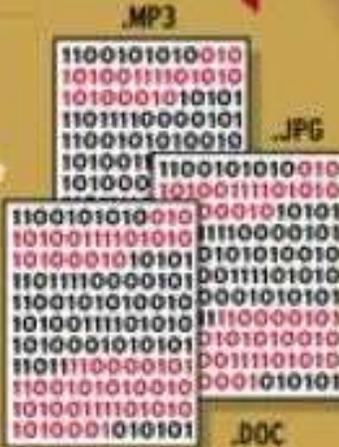


**1 The virus arrives**  
Most viruses show up inside e-mail attachments.

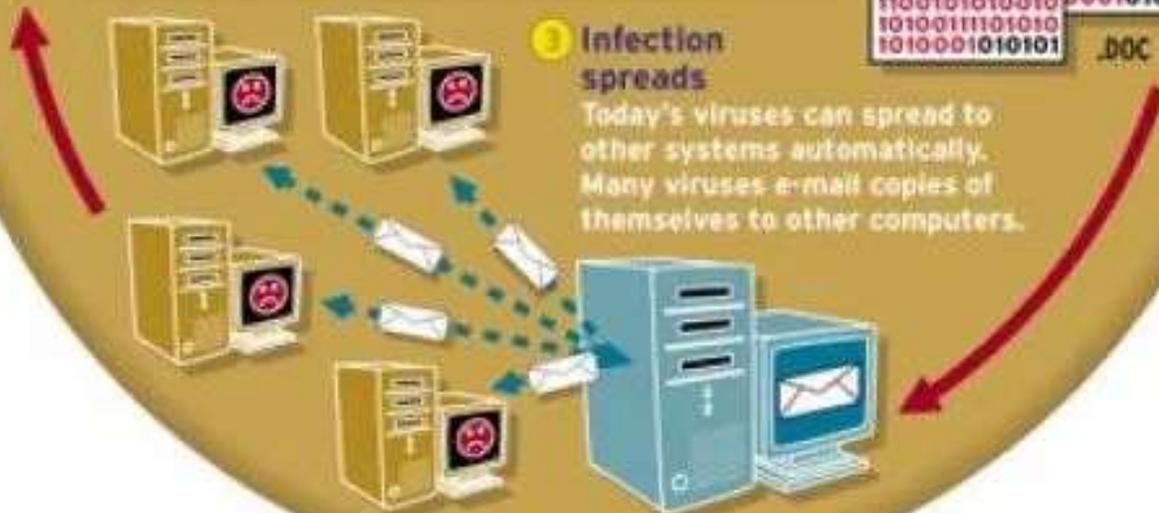


**4 The payload hits**  
At some point after the trigger, the virus performs its programmed action—from erasing your hard drive to inserting jokes in your documents.

**2 Something pulls the trigger**  
Running or opening the file activates the virus, which inserts copies of itself into files and other locations on your computer.



**3 Infection spreads**  
Today's viruses can spread to other systems automatically. Many viruses e-mail copies of themselves to other computers.



- **2013** – start of Ransomware encrypt your files preventing you from accessing them
- Trojan – Trojan Horse – allowing other person to see and control your machine without your knowledge
- Adware – pop ups and banners on your screen that are hard to close

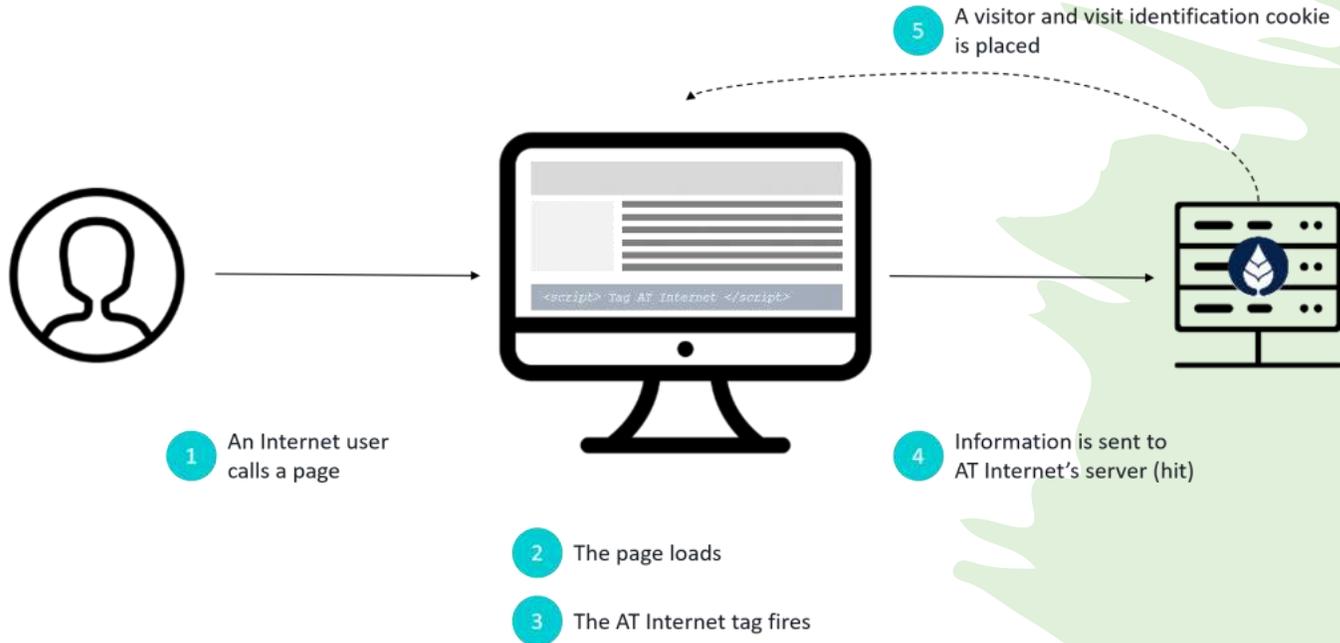




## Security on internet

- Cookies
- Anonymity on the internet
- Content filter / parental control
- Installing and downloading things from internet
- Phishing (not fishing)
- Safe search
- Antivirus and Firewall





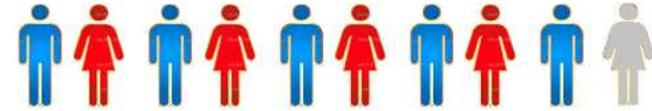
## Cookies

Like crumbs allowing to see where on internet you go, most are safe. But it's important to review and understand what information are stored



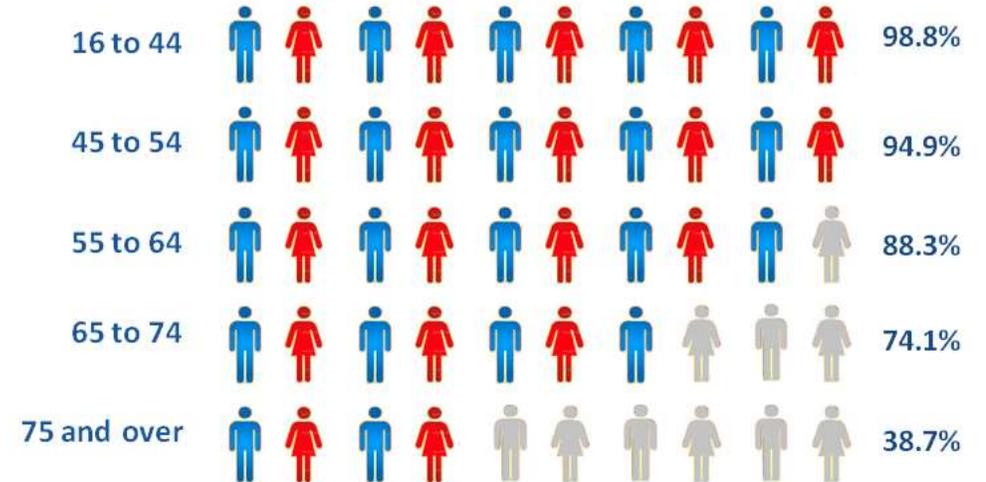
# 66% of Companies Advertise Online

66% of companies use online advertising and do so through a variety of channels. The most popular are:



87.9% of adults in the UK have used the internet in the last 3 months

Almost all adults aged 16 to 44 years have used the internet recently...



... but just 4 in every 10 adults aged 75 and over have used the internet in the last 3 months .





Antivirus and Firewall

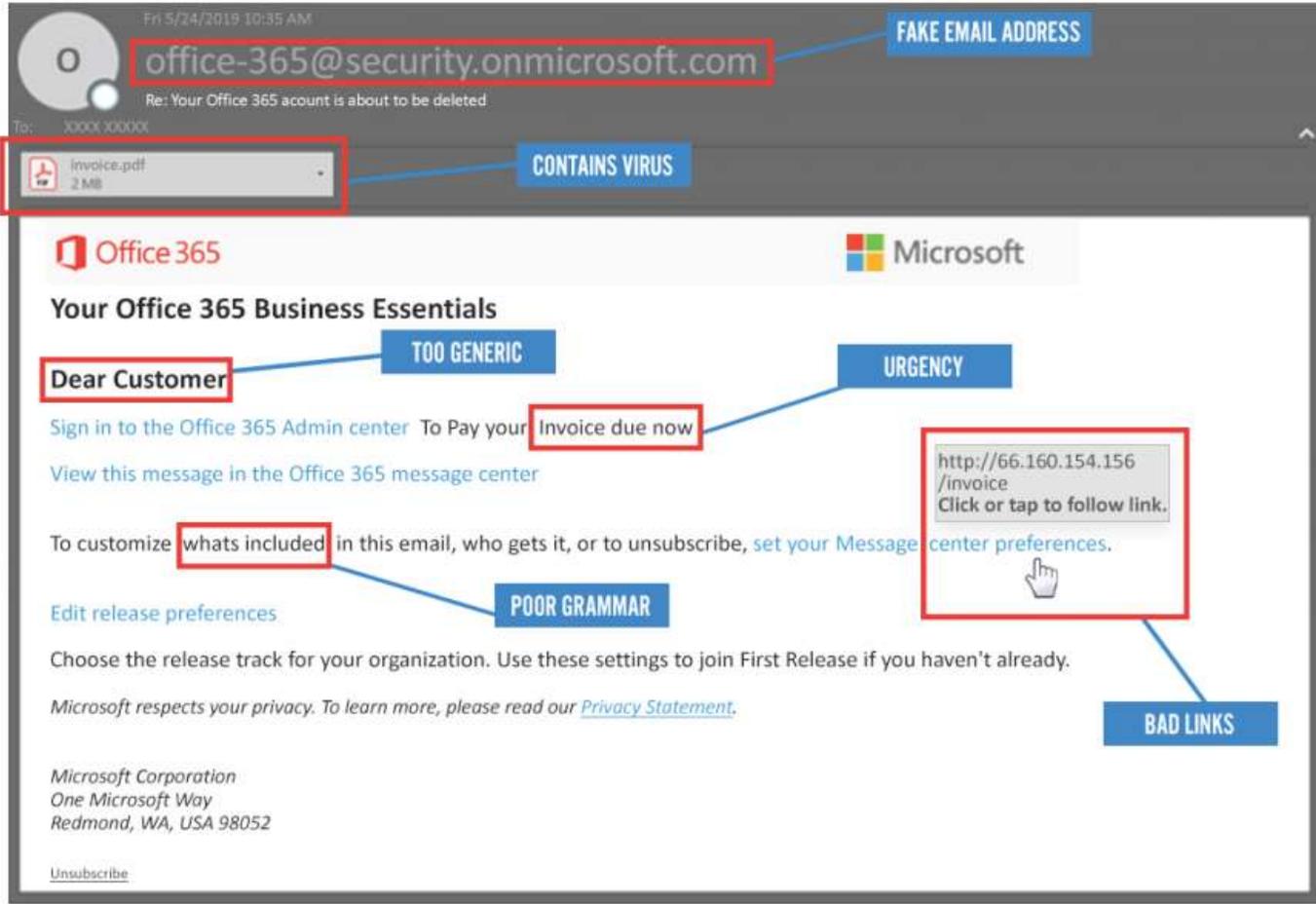
Firewall protects your device from external attacks

Antivirus protects your device from the compromised files and websites

Both rely on updates, and require maintenance, however neither is perfect!



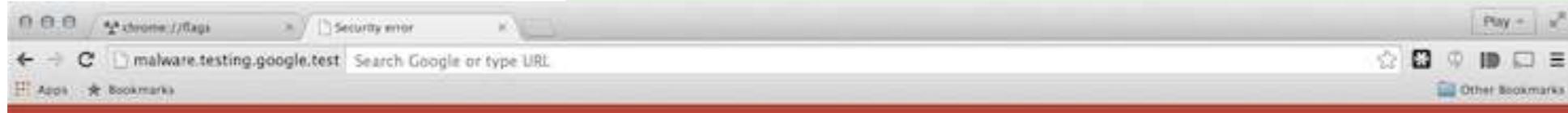
# Cyber criminals might send an email that looks legitimate, known as a phishing email, but you can take steps to avoid the traps



## Phishing

A common method, where attacker send email appearing to look from correct person but containing fake information. Have a look at how to spot this type of messages.







# Amount of Time to Crack Passwords

"abcdefg" 7 characters  .29 milliseconds

"abcdefgh" 8 characters  5 hours

"abcdefghi" 9 characters  5 days

"abcdefghij" 10 characters  4 months

"abcdefghijk" 11 characters  1 decade

"abcdefghijkl" 12 characters  2 centuries

 Better Buys

1Password



KeePass

LastPass

Let's talk about password!



# Multi-Factor Authentication (MFA)



Multi Factor Authentication - MFA





*What operating system is immune to risks on internet?*



# Stay SAFE Online

BY, EDTECH4BEGINNERS.COM



Tell an adult if something makes you feel worried.



Double-check information to make sure it is true.



Don't open messages or files from people you don't know.



Never meet up with strangers (even if they seem nice).



Think before you post and keep personal info/passwords safe.



BE NICE TO PEOPLE.



## What Bible verses should you keep in mind when on internet?

- **Philippians 4:8** - Finally, brothers and sisters, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable-if anything is excellent or praiseworthy-think about such things.
- **Proverbs 4:23** - Above all else, guard your heart, for everything you do flows from it.
- **1 Corinthians 10:31** - So, whether you eat or drink, or whatever you do, do all to the glory of God.



*What will you know  
by the end of it?*

- Define the following terms:
  - Internet
  - World Wide Web
  - Chat Room
  - Download
  - Upload
  - Website
  - Virus
- Know the history of Internet
- Know why Antivirus are important
- Know how filter ware/parental controls help protect your family
- Have ability to navigate your way around the internet
- Have ability to use email

