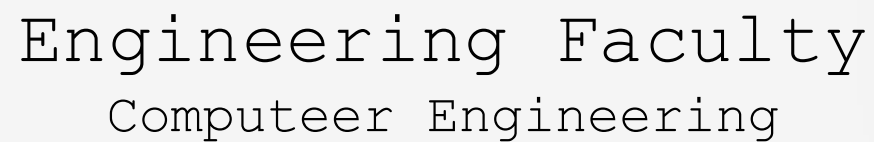


[illegible]

Prepared by: Dr Ercan Ezin

Google I/O

Google I/O registration is now open!

Tune in live May 20th and 21st

[Register now](#)

Hi Ercan,

Get ready to tune into Google I/O, where you can explore the latest innovations from Google! Join us online May 20-21 for live streamed keynotes and sessions covering what's new in AI, Android, web, cloud, and more.

[Register now](#) at no cost and receive your exclusive I/O 2025 badge.



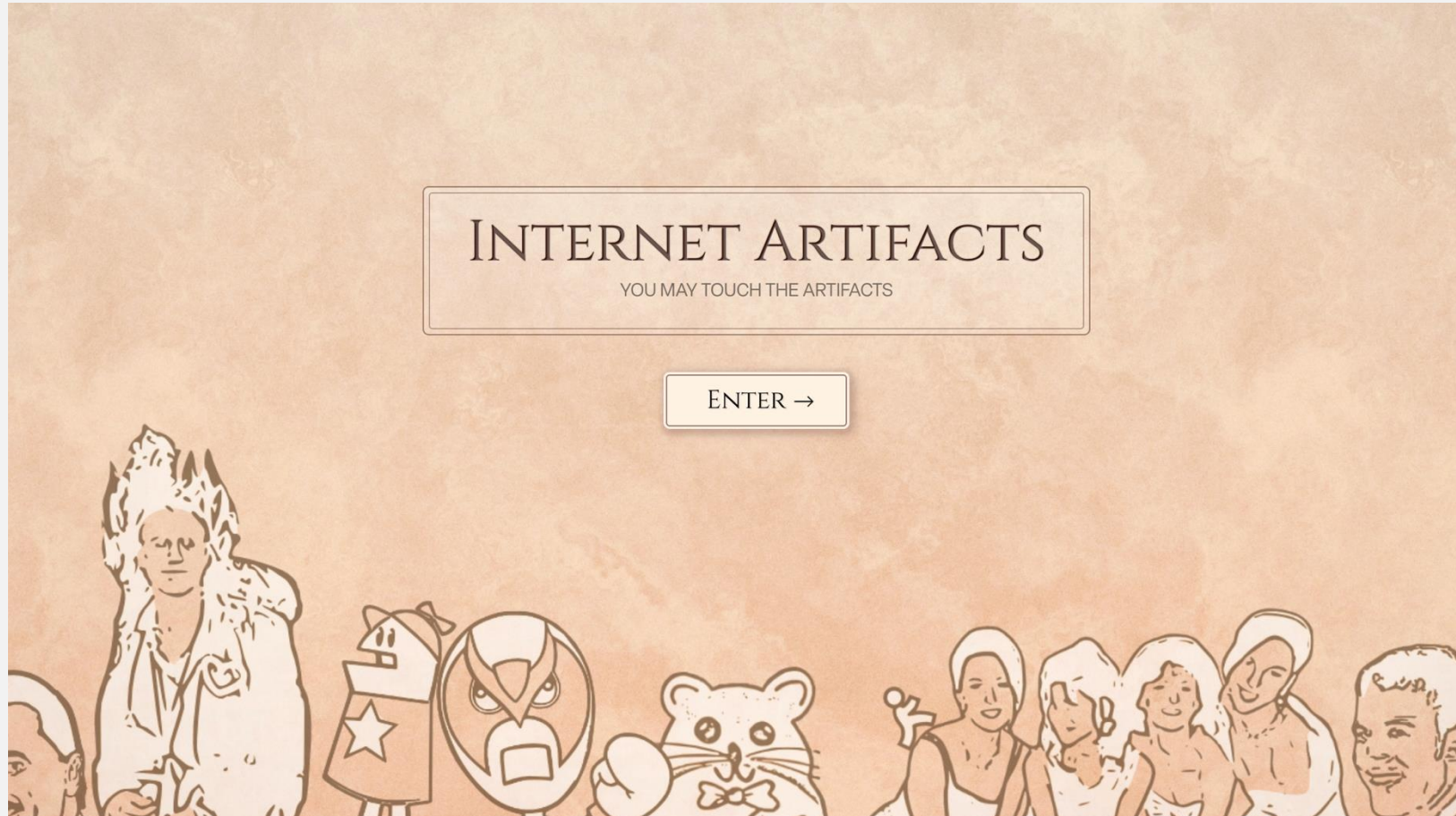
<https://io.google/2025/>

20 Mayıs Salı-20:00-22:00

21 Mayıs Çarşamba-20:00-22:00

INTRODUCTION

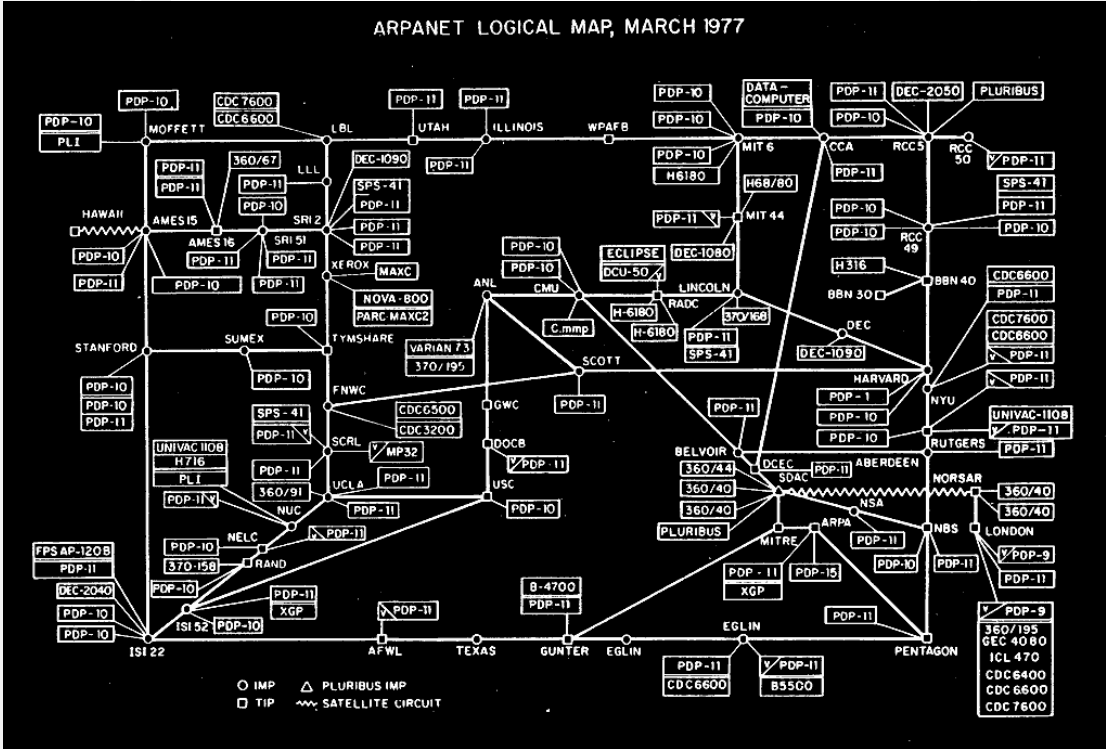
THIS WEEK WE WILL WORK ON



<https://neal.fun/internet-artifacts/>

MAP OF ARPANET

- A map of ARPANET, the **precursor** to the internet, showing the 111 computer terminals connected to the network in 1977.
- ARPANET was created by the Department of Defense to **allow** researchers to share information and resources. The network was initially **limited** to universities and research institutions.
- By 1983, ARPANET had over 4,000 connected computers and a growing number of e-mail users. The ARPANET completion report concluded that "the full impact of the technical changes **set in motion** by this project may not be understood for many years."



FIRST SPAM EMAIL

The first spam email was sent by Gary Thuerk, a marketing manager for the Digital Equipment Corporation. Thuerk sent the email to 320 **recipients** on ARPANET, advertising a product presentation of the new DECSYSTEM-20 **mainframe** computers.

The **reaction** to the email was **overwhelmingly** negative: one user **claimed** it broke his computer system, and the US Defense Communications Agency called his company to complain. Thuerk claims he sold \$13 to \$14 million worth of mainframe computers through the **campaign**.

The term "spam" would not be used until years later, after being inspired by a **Monty Python** sketch.

```
MAIL-FROM: DEC-MARLBORO RCVD AT 3-MAY-78 0955-PDT
DATE: 1 MAY 1978 1233-EDT
FROM: THUERK AT DEC-MARLBORO
SUBJECT: ADRIAN@SRI-KL
TO: DDAY@SRI-KL, DAY@SRI-KL, DEBOER@UCLA-CCN...
CC: BPM@SU-AI

DIGITAL WILL BE GIVING A PRODUCT PRESENTATION OF THE NEWEST
MEMBERS OF THE DECSYSTEM-20 FAMILY; THE DECSYSTEM-2020, 2020T,
2060, AND 2060T. THE DECSYSTEM-20 FAMILY OF COMPUTERS HAS EVOLVED
FROM THE TENEX OPERATING SYSTEM AND THE DECSYSTEM-10 (PDP-10)
COMPUTER ARCHITECTURE. BOTH THE DECSYSTEM-2060T AND 2020T OFFER
FULL ARPANET SUPPORT UNDER THE TOPS-20 OPERATING SYSTEM. THE
DECSYSTEM-2060 IS AN UPWARD EXTENSION OF THE CURRENT DECSYSTEM
2040 AND 2050 FAMILY. THE DECSYSTEM-2020 IS A NEW LOW END MEMBER
OF THE DECSYSTEM-20 FAMILY AND FULLY SOFTWARE COMPATIBLE WITH ALL
OF THE OTHER DECSYSTEM-20 MODELS.

WE INVITE YOU TO COME SEE THE 2020 AND HEAR ABOUT THE DECSYSTEM-20
FAMILY AT THE TWO PRODUCT PRESENTATIONS WE WILL BE GIVING IN
CALIFORNIA THIS MONTH. THE LOCATIONS WILL BE:

    TUESDAY, MAY 9, 1978 - 2 PM
    HYATT HOUSE (NEAR THE L.A. AIRPORT)
    LOS ANGELES, CA

    THURSDAY, MAY 11, 1978 - 2 PM
    DUNFEY'S ROYAL COACH SAN MATEO, CA
    (4 MILES SOUTH OF S.F. AIRPORT AT BAYSHORE, RT 101 AND RT 92)

A 2020 WILL BE THERE FOR YOU TO VIEW. ALSO TERMINALS ON-LINE TO
OTHER DECSYSTEM-20 SYSTEMS THROUGH THE ARPANET. IF YOU ARE UNABLE
TO ATTEND, PLEASE FEEL FREE TO CONTACT THE NEAREST DEC OFFICE FOR
MORE INFORMATION ABOUT THE EXCITING DECSYSTEM-20 FAMILY.
```

FIRST SMILEY

- The first recorded use of a **smiley** on the internet came in 1982, when computer scientist Scott Fahlman **proposed** the use of :-) and :-(to **distinguish** between jokes and serious posts online.
- The proposal came in response to a post on the Carnegie Mellon University **bulletin board**, where a student joked that there was a mercury spill in the physics department's elevator. Other students missed context for the joke and thought a **spill actually occurred**.
- The smileys were slowly **adopted throughout** Carnegie Mellon and later to the **broader** internet.

```
17-SEP-82 15:15      ANTHONY AT CMU-7806      (*%)  
  
HOW ABOUT USING * FOR GOOD JOKES AND % FOR BAD JOKES?  
WE COULD EVEN USE *% FOR JOKES THAT ARE SO BAD, THEY'RE  
FUNNY.  
  
019-SEP-82 11:44      SCOTT E FAHLMAN      :-)  
  
I PROPOSE THAT THE FOLLOWING CHARACTER SEQUENCE FOR JOKE  
MARKERS:  
:-)  
  
READ IT SIDEWAYS. ACTUALLY, IT IS PROBABLY MORE ECONOMICAL  
TO MARK THINGS THAT ARE NOT JOKES, GIVEN CURRENT TRENDS.  
FOR THIS, USE  
:-(
```

FIRST MP3

- **The first ever** MP3 was the a cappella version of "Tom's Diner" by Suzanne Vega. Karlheinz Brandenburg, who worked on the MP3 format, used the song as a **benchmark** to see how the compression algorithm would **handle** the human voice.
- Instrumental music had been easier to compress, but Vega's voice sounded distorted and unnatural in early versions of the format. Brandenburg would **end up** making hundreds of **tweaks** to the MP3 compression algorithm to make Vega's voice clearer. He would later even get to meet Suzanne Vega and hear the song **performed** live.



MORRIS WORM

- On November 2nd, 1988, a computer worm was released onto the internet. Created by Robert Tappan Morris, a 23-year-old Cornell University graduate student, it was designed as an **experiment** to measure the internet's size, but a programming error **caused** it to **propagate** wildly. **Within 24 hours, close to 10% of the 88,000 computers on the internet were disabled.**
- After learning that his experiment had gone **awry**, Morris asked a friend to anonymously **relay** an **apology** and **instructions** for removing the worm to internet users, but **ironically** those most impacted didn't get his message because of the damage the **worm** did to the network. Morris became the first person **convicted** under the **Computer Fraud and Abuse Act**.

Worm.c Worm.h Cracksome.c View

| Line 1 | Col 1 | Insert | Index |
|--------|-------|--------|-------|
|--------|-------|--------|-------|

```
#include "worm.h"
#include <stdio.h>
#include <signal.h>
#include <strings.h>
#include <sys/param.h>
#include <sys/types.h>
#include <sys/time.h>
#include <sys/resource.h>
#include <sys/socket.h>
#include <sys/fcntl.h>
#include <sys/stat.h>
#include <netinet/in.h>
#include <net/if.h>
#include <arpa/inet.h>

extern errno;
extern char *malloc();

int pleasequit;
int nobjects = 0;
```

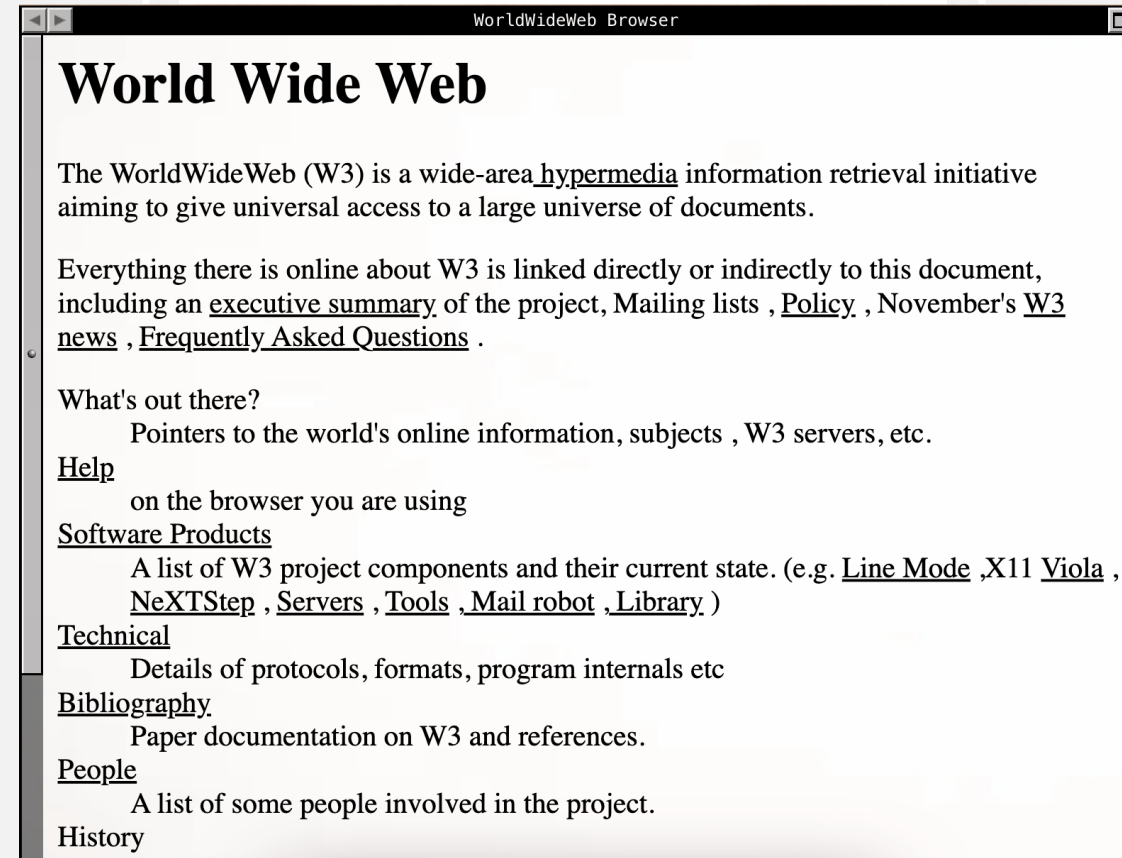
INTERNET **RELAY** CHAT

- Created by Jarkko Oikarinen as a **side-project** while working at the University of Oulu in Finland, IRC, or Internet Relay Chat, is a text-based communication protocol that lets users chat in **real-time** group **conversations**, known as channels.
- The initial IRC server **consisted** mostly of Jarkko's friends, but the protocol slowly **spread** when others started hosting their own servers. Other schools, like Oregon State University also started using the protocol. By mid-1989, around 40 servers existed worldwide, and IRC was adopted by early internet communities as a chat alternative to message boards.

```
Session Start: Tue Oct 08 03:46:50 1996
*** TF: Talking in #deathmatch
03:46:50 | Gate: my doom2 config is bett
03:46:52 | rdwilson: always has the bios
03:46:54 | Gate: your quake config is be
03:46:56 | rdwilson: Gate: bleah, you'r
03:46:58 | rdwilson: mine is godly .. th
configs
03:47:00 | rdwilson: Dan uses mine.. and
03:47:03 | Xanadu: our match was basical
minutes searching out the other player
03:47:06 | rdwilson: Xanadu: its called
03:47:08 | Gate: rdwilson: no one can b
03:47:12 | rdwilson: mono e mono
03:47:14 | rdwilson: its a different gam
03:47:17 | Xanadu: then he jumps out at
floor view :P~~~~~Q
03:47:19 | Gate: say I can strafe both w
03:47:22 | Emb: Gate: mine can =)
```

FIRST WEBSITE

- In March 1989, Tim Berners-Lee wrote the initial **proposal** for the World Wide Web, **envisioning** it as a "**universal linked information system**" to help researchers share information.
- In December 1990, he launched the world's first website, info.cern.ch. The site **featured** details about the WWW project, including an explanation of **hypertext** and instructions for setting up a web server.
- Tim Berners-Lee created the first web browser, called WorldWideWeb, to display the site. He hosted the first website on a NeXT computer, attaching a handwritten note to the computer: "**This machine is a server. DO NOT POWER IT DOWN!!**"



FIRST WEBCAM

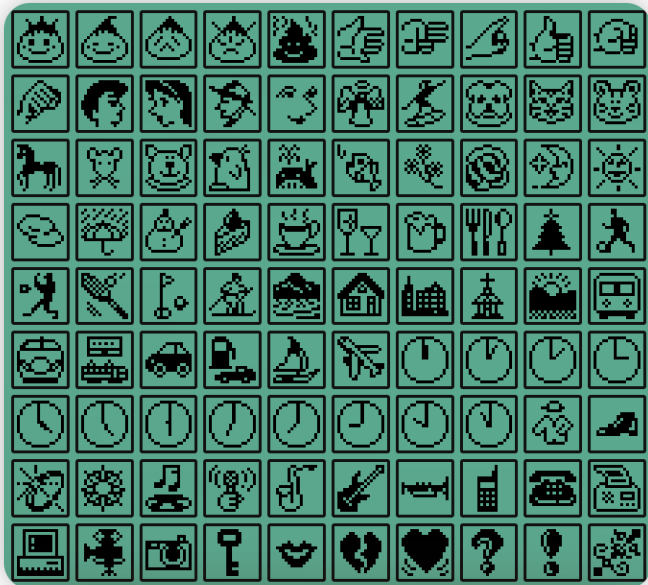
- The first webcam was set up in the Trojan Room of the Computer Laboratory at the University of Cambridge, its lens focused on a coffee **pot**. Researchers created the **feed** so they could check the coffee pot's status without leaving their desks.
- Initially, a program called XCoffee had to be downloaded to watch the **stream**, but in 1993, the black and white feed – which only had **a frame rate of 3 frames per minute** – was made available on the web. Millions of people ended up watching the coffee maker online throughout the 1990s.



YAHOO!

- Yahoo! was created by Jerry Yang and David Filo, two Stanford graduate students. Initially just lists of interesting links called "*Jerry's Guide to the World Wide Web*", it **took off** when they created a program to **combine** them.
- Once the guide started getting 50,000 daily hits, they realized it needed a better name and rebranded to **Yahoo! (an acronym for Yet Another Hierarchically Organized Oracle)**.
- Initially the two programmers manually added links, but as the web grew they hired full-time "**surfers**" to browse and categorize the internet. Eventually 1,000 sites were being added a day. They later pitched the site to investors as a "**TV Guide for the internet.**"

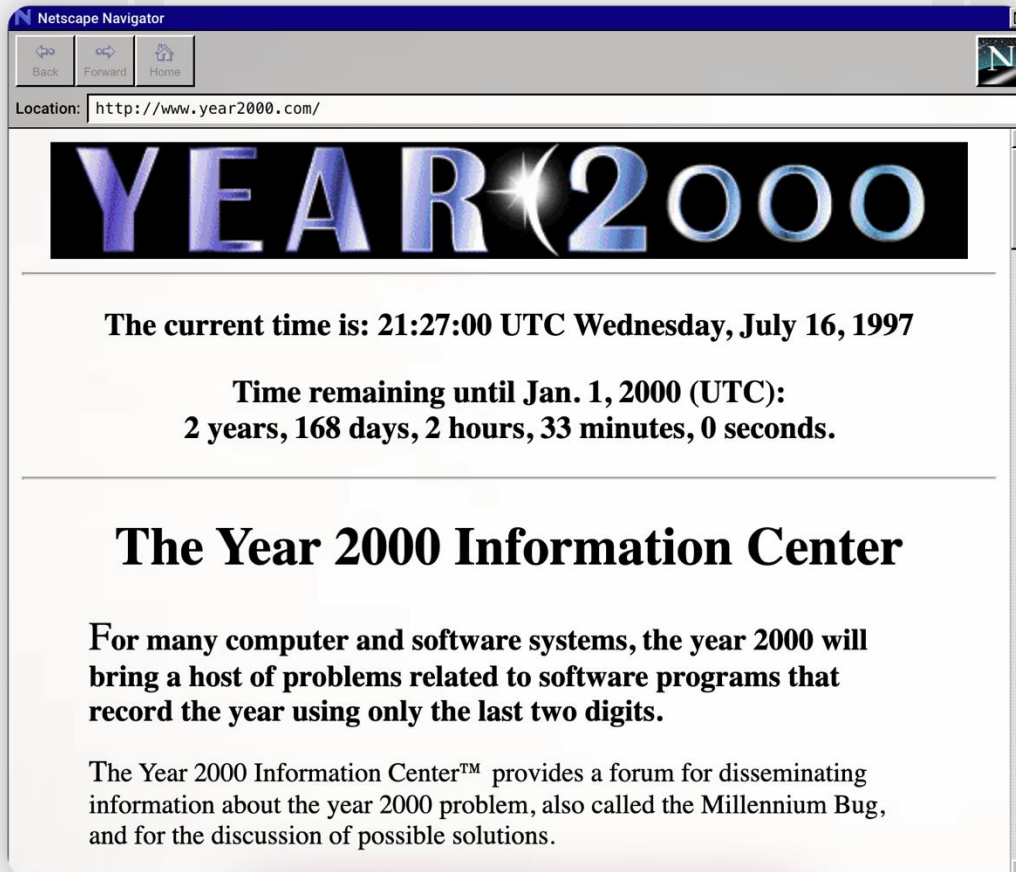




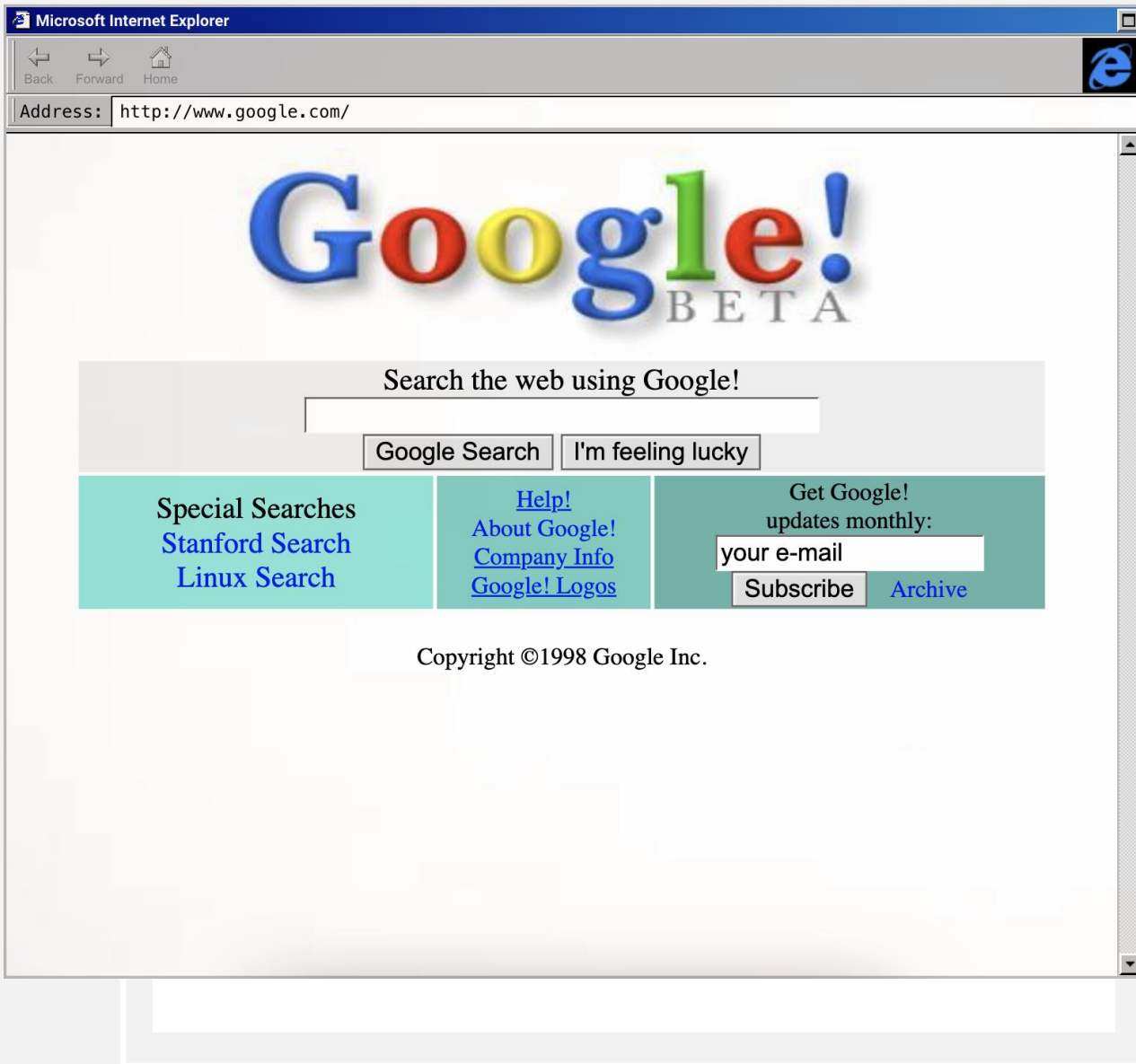
FIRST EMOJI SET

- Japanese companies took the first steps in the late 1990s to develop emojis for mobile devices. The first set of 90 emojis was **released** by J-Phone (now SoftBank Mobile) on the SkyWalker DP-211SW phone in November 1997.
- The phone did not sell well, and emojis could only be shared between users of that **specific** model, limiting their spread. Despite the **sluggish** start, a later version of SoftBank's emoji set became the foundation for Apple's emojis that appeared with the release of iOS 2 in 2008 and that **led to** their standardization by Unicode in 2010.

YEAR 2000 BUG



- Early computer programs only stored the last two digits of the year to save on **expensive** storage space. With the year 2000 approaching, there was a **frenzied** effort to fix programs that would break when the new millennium started.
- **Alarmists** predicted failing banks, **plummeting** airplanes, and nuclear **plant disasters**. Some people **stockpiled** gas masks and food. To cushion against a potential **financial crisis**, the Federal Reserve **pumped** an extra \$50 billion into circulation. But when the new year rolled around, the world breathed a collective **sigh of relief** as the **proactive** work of programmers had paid off, averting widespread **catastrophes**.



GOOGLE HOMEPAGE

- Originally called **BackRub**, Google began as a research project by Stanford PhD students Larry Page and Sergey Brin aimed at crawling the 10 million websites on the web at the time. In March 1996, they pointed their **crawler** at a Stanford webpage and let it crawl the internet **outward** from there.
- Their main breakthrough was the **PageRank** algorithm, which measured the quantity and quality of links to and from a site. The **duo** quickly realized that their search results **outperformed** existing **engines** like AltaVista and Excite. Working initially from their dorm rooms, they continually **expanded** the service, **at one point consuming nearly half of Stanford's network bandwidth**.

NETFLIX HOMEPAGE

- With fewer than half a million DVD players sold worldwide, Netflix launched in 1998 with an **initial** library of more than 900 movies. They were able to target early adopters of DVDs since most video stores didn't **stock** them yet.
- The idea for Netflix came while co-founders Reed Hastings and Marc Randolph were **carpooling**. They initially thought of letting people rent VHS **tapes** online, but VHS was too expensive and **delicate** to ship. A few months later, they read about a new format called DVD and dusted off the idea. They **mailed** a used CD to Hastings's home and realized idea could work when it arrived **intact**.



INTERNET MAHIR

- In 1999, Turkish man **Mahir Çağrı** launched a personal website that **unexpectedly** went **viral**. Featuring photos of himself playing instruments, lounging in **swimwear**, and expressing his love for travel, Mahir greeted the world with the **now-iconic** slogan: “**I kiss you!!!**”
- Written in **quirky, broken** English, the site **charmed** early internet users and quickly spread across forums, emails, and comedy shows. Mahir’s **eccentric** personality and unfiltered self-promotion made him one of the **first internet celebrities**.
- Though his fame was brief, Mahir became a symbol of early internet virality—long before social media made it mainstream. His site is still remembered as a precursor to meme culture and online influencers.

This is my page

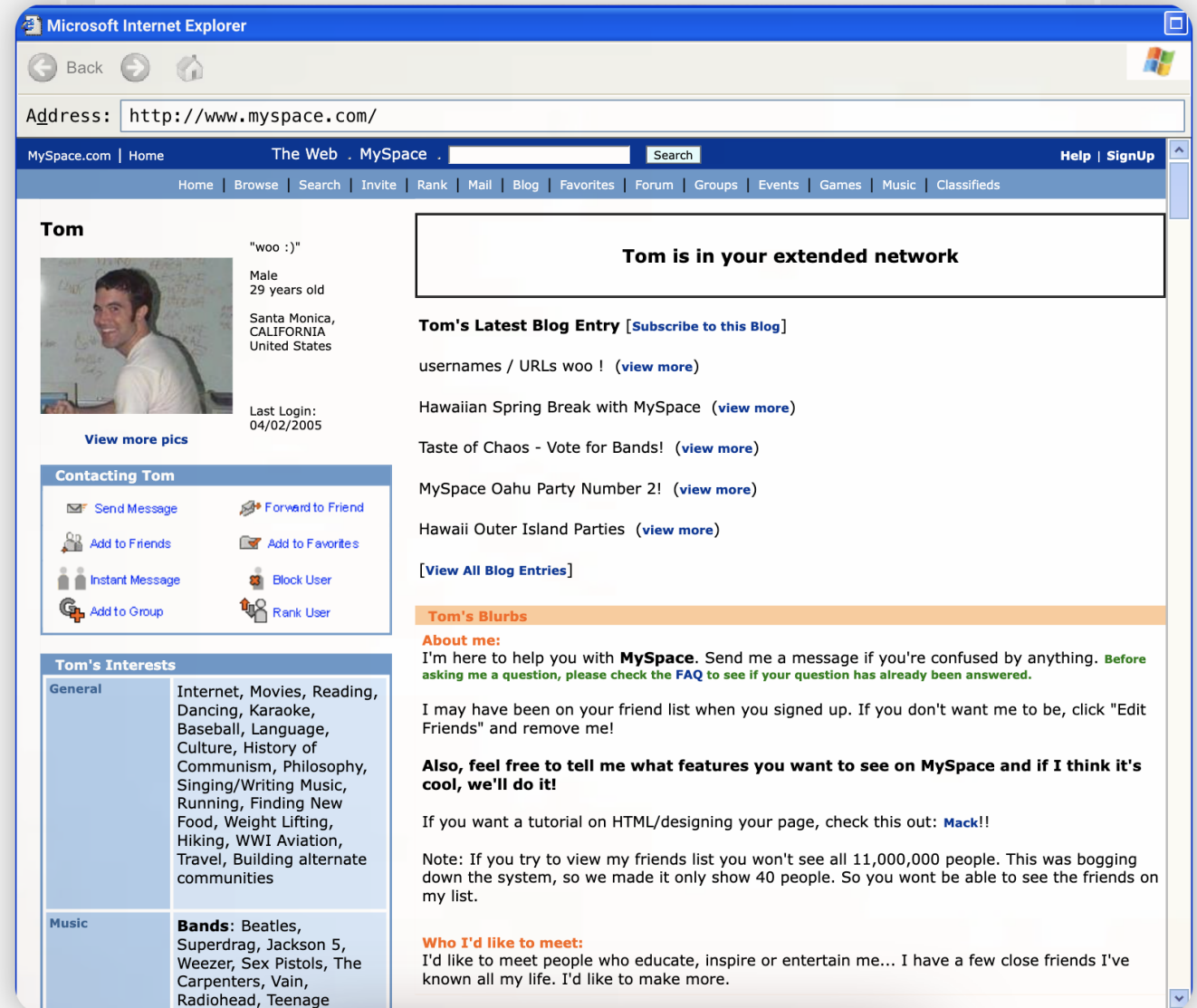
WELCOME TO MY HOME PAGE !!!!!!!!!!!

I KISS YOU !!!!!



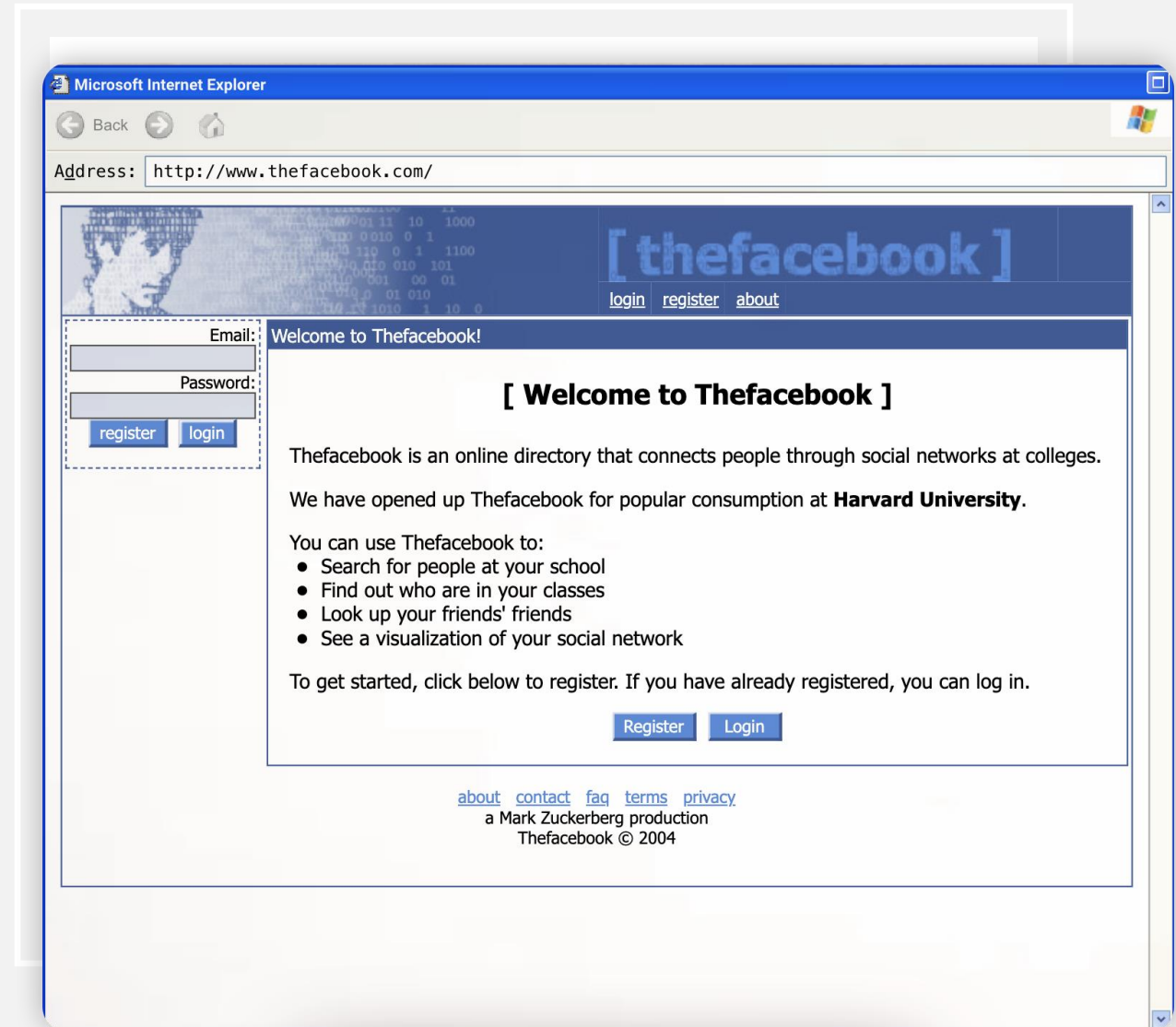
MYSPACE TOM

- In the spring of 2003, Tom Anderson saw the **rise of platforms** like Friendster and felt that it was a **missed opportunity** to create a more creative platform. He conceived of MySpace as a place where users could express themselves, even allowing custom HTML and CSS on users' profiles.
- The platform first **gained traction** in the Los Angeles music scene, where bands used the site to **promote** their songs. As the site grew, it started launching the careers of bands, like Panic! at the Disco. Tom became a **celebrity** himself, since he was everyone's default first friend on MySpace. By October, the platform was adding 10,000 new users a day.



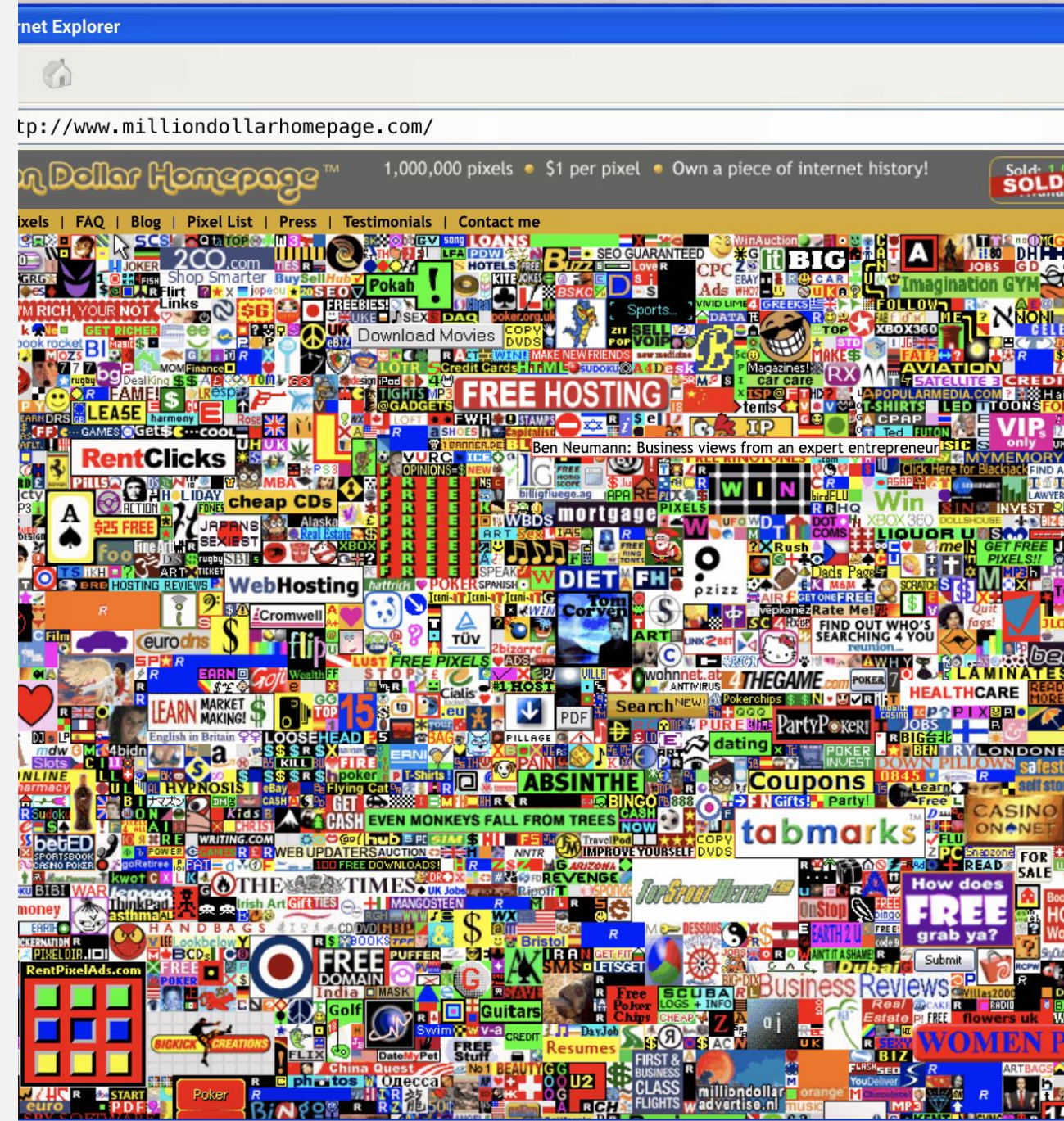
THE FACEBOOK

- After the Harvard **administration** shut down Facemash, a "Hot or Not"-style website to rate students, Mark Zuckerberg launched TheFacebook.com. Unlike MySpace, the site was based on real-world connections, requiring users to have a Harvard e-mail and to use their real name. It was the first time many students used their real names on social media.
- The platform was an **instant** hit, with two-thirds of the Harvard student body signing up within a few weeks. A simple **directory** at its core, most mainly used it to check relationship **statuses** and see who shared classes. The site quickly **expanded** to other colleges, and by the end of 2004, it had over one million users.



MILLION DOLLAR HOMEPAGE

- In 2005, 21-year-old Alex Tew from Wiltshire, England, **devised** a unique way to pay for college: The Million Dollar Homepage. Tew sold 1,000,000 pixels on the page for \$1 each or \$100 for a 10-by-10 pixel block, turning them into tiny digital billboards for **advertisers**.
- The ads ranged from mainstream outlets like The Times of London to more niche sites, like online casinos. The site received 200,000 unique visitors daily within the first month. The last 1,000 pixels were **auctioned off** for \$38,100, earning Tew a total of \$1,037,100 from the stunt. Tew ended up **dropping out** after his first semester, saying school wasn't for him.



YOUTUBE:ME AT THE ZOO

YouTube co-founder Jawed Karim uploaded the first YouTube video, "*Me at the Zoo*," on April 23, 2005. The 19-second clip features Karim discussing the long **trunks** of two elephants at the San Diego Zoo. Though not **groundbreaking** in content, the video set the tone for a new era of user-created videos.

- Initially **conceived** as a dating site, YouTube **pivoted** to online entertainment just as conditions became ripe for widespread video sharing, like the **emergence** of widespread broadband access. By its official launch on December 15, 2005, YouTube was already serving over two million video views per day.



FIRST TWEET

- Co-founder Jack Dorsey sent the first-ever tweet—"just setting up my twttr" on March 21st, 2006. Twitter was initially designed as an SMS-based platform for friends to share **status** updates. It was called "twttr," since it was **cool** at the time remove **vowels** from company names.
- In its early days, **amidst** a world dominated by flip phones, Twitter took time to gain traction. Its significant breakthrough came during the South by Southwest Interactive conference in March 2007, where the platform saw a massive **surge** in usage.

just setting up my twttr

12:50 PM March 21, 2006 from web

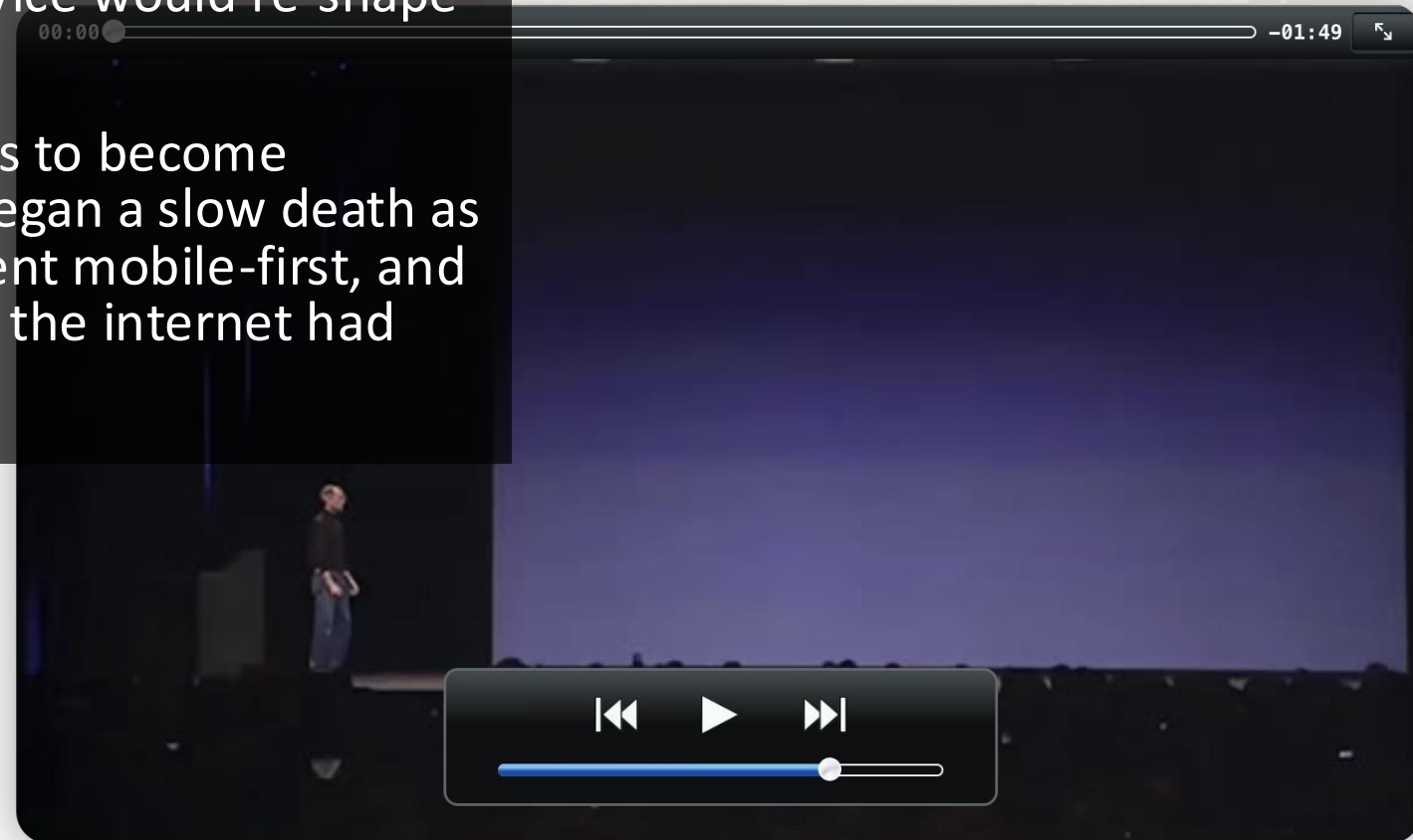


jack
Jack Dorsey

AN INTERNET COMMUNICATOR

On January 9, 2007, Steve Jobs introduced the iPhone as a "widescreen iPod," a "revolutionary phone," and a "breakthrough Internet communicator". Although the crowd didn't seem as excited about the internet communicator part, it ended up becoming by far the most revolutionary feature—the device would re-shape the internet.

- It forced a redesign of web interfaces to become responsive and minimalistic. Flash began a slow death as it wasn't supported. Social media went mobile-first, and became all-encompassing. An era of the internet had ended, and a new one began.



PRESENTATION TIME!

Overall 20%

5% Introduction of self and the topic

10% Presentation content(English is favoured)

5% Presentation skills and using English

You have 5 Minutes, make it count!



WORDS OF THE WEEK

1. **protocol:** A set of rules governing the exchange of data between devices or programs (e.g., Internet Relay Chat used a real-time text-based protocol).
2. **pivoted:** Changed direction or strategy (e.g., YouTube pivoting from dating to video sharing).
3. **precursor:** A predecessor or early version of something more advanced (e.g., ARPANET as a precursor to the modern internet).
4. **propagate:** To spread or transmit, especially in the context of data, viruses, or network activity (e.g., how the Morris Worm propagated).
5. **format:** A standard way in which data is organized or presented (e.g., DVD format, MP3 format, emoji format).
6. **distorted:** Altered or twisted from the original form, often negatively (e.g., distorted audio in early MP3s).
7. **benchmark:** A standard or point of reference for evaluating performance (e.g., using "Tom's Diner" as an MP3 benchmark).
8. **interface:** The point of interaction between the user and a computer system or between different systems (e.g., web interfaces on smartphones).
9. **mainframe:** A large, powerful computer used primarily by institutions for critical applications.
10. **hierarchically:** Organized in levels or ranks, often used to describe data or file structures (e.g., Yahoo!'s site structure).
11. **fraud:** Wrongful or criminal deception intended to result in financial or personal gain (e.g., Computer Fraud and Abuse Act).
12. **standardization:** The process of establishing technical standards (e.g., emoji standardization by Unicode).
13. **repository:** A central location where data is stored and managed (implied in hosting websites or code).
14. **network bandwidth:** The amount of data that can be transferred in a network in a given time (e.g., Google's early use of Stanford's bandwidth).
15. **framework:** A structure for developing software or systems (e.g., the iPhone's impact on web frameworks).
16. **directory:** A listing of files or data (e.g., Facebook as a student directory).
17. **crawler:** A program that systematically browses the web to index content (e.g., Google's BackRub crawler).
18. **responsive:** A web design that adjusts layout and content based on screen size (e.g., due to iPhone adoption).
19. **tweak:** A small adjustment made to improve functionality or performance (e.g., tweaks to the MP3 algorithm to improve voice clarity).
20. **communicator:** A device or system enabling communication, especially across networks (e.g., iPhone as a breakthrough Internet communicator).



EOF