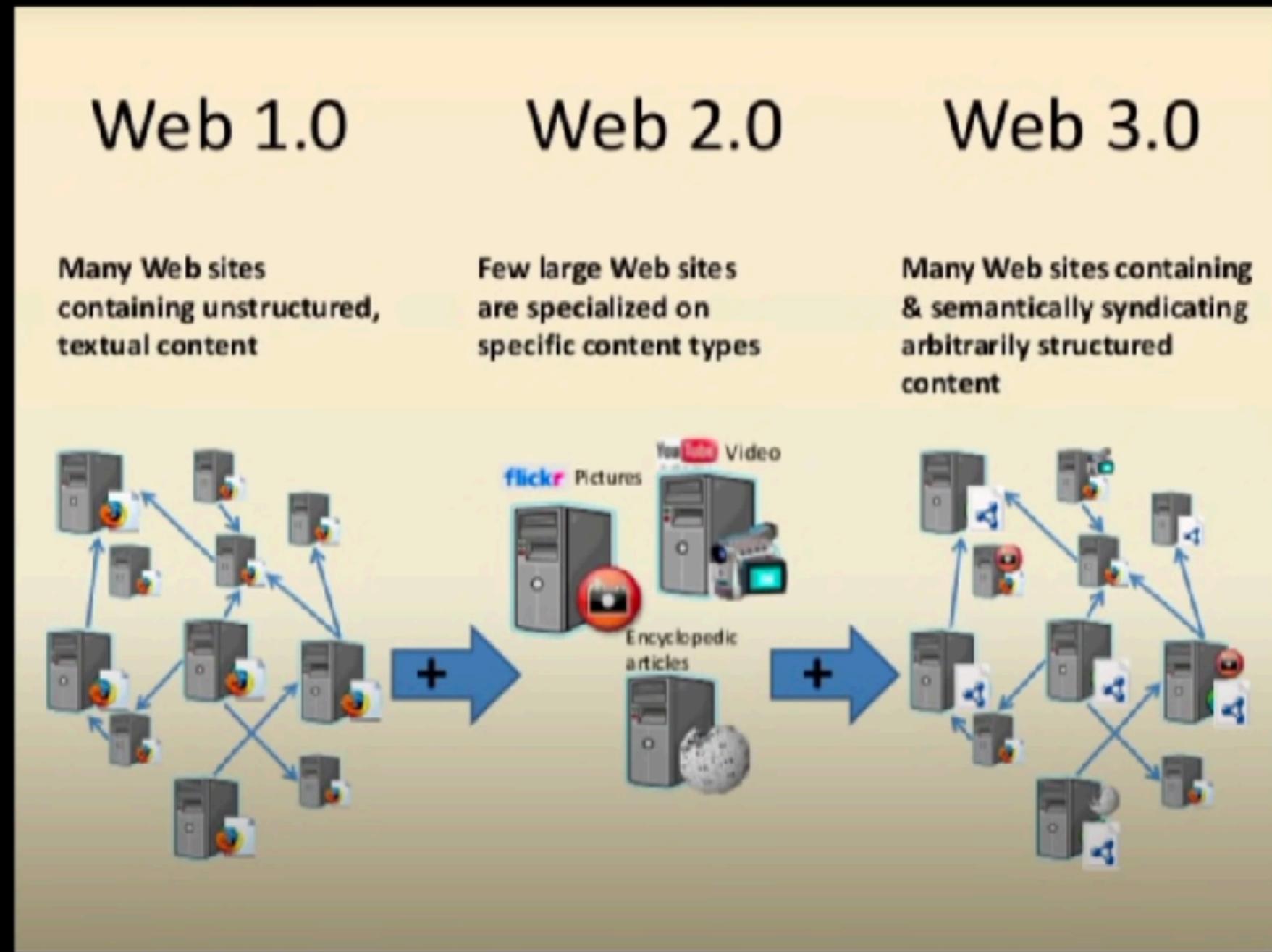




Intro to Web Development

Technology, Culture + Society
Integrated Digital Media (I <3 IDM)

Monday + Wednesday IDM room 307
Section B - 10:00 am
Instructor: rebecca (marks) leopold
rebleo@nyu.edu || rml444@nyu.edu
[@rebeccaleopold](#) on most socials



**what are ways humans have
moved information across
geographic space?**



Great Wall of China Signal Towers

400 BC - fire/smoke or drum beats

200 BC - 220 AD - Han dynasty - flags, lights, gunshots

Barack Obama
1600 Pennsylvania Ave NW
Washington, DC 20500

PORTLAND OR 970

23 JAN 2014 PM 3 L



Hugh Amick
vLetter, inc
509 Cascade Ave, Suite H
Hood River, OR 97031

97031206080





First message sent from Washington D.C. to Baltimore
Samuel Morse 1844

A decorative horizontal separator consisting of two rows of pink dots and dashes, separated by a thick pink diagonal line.

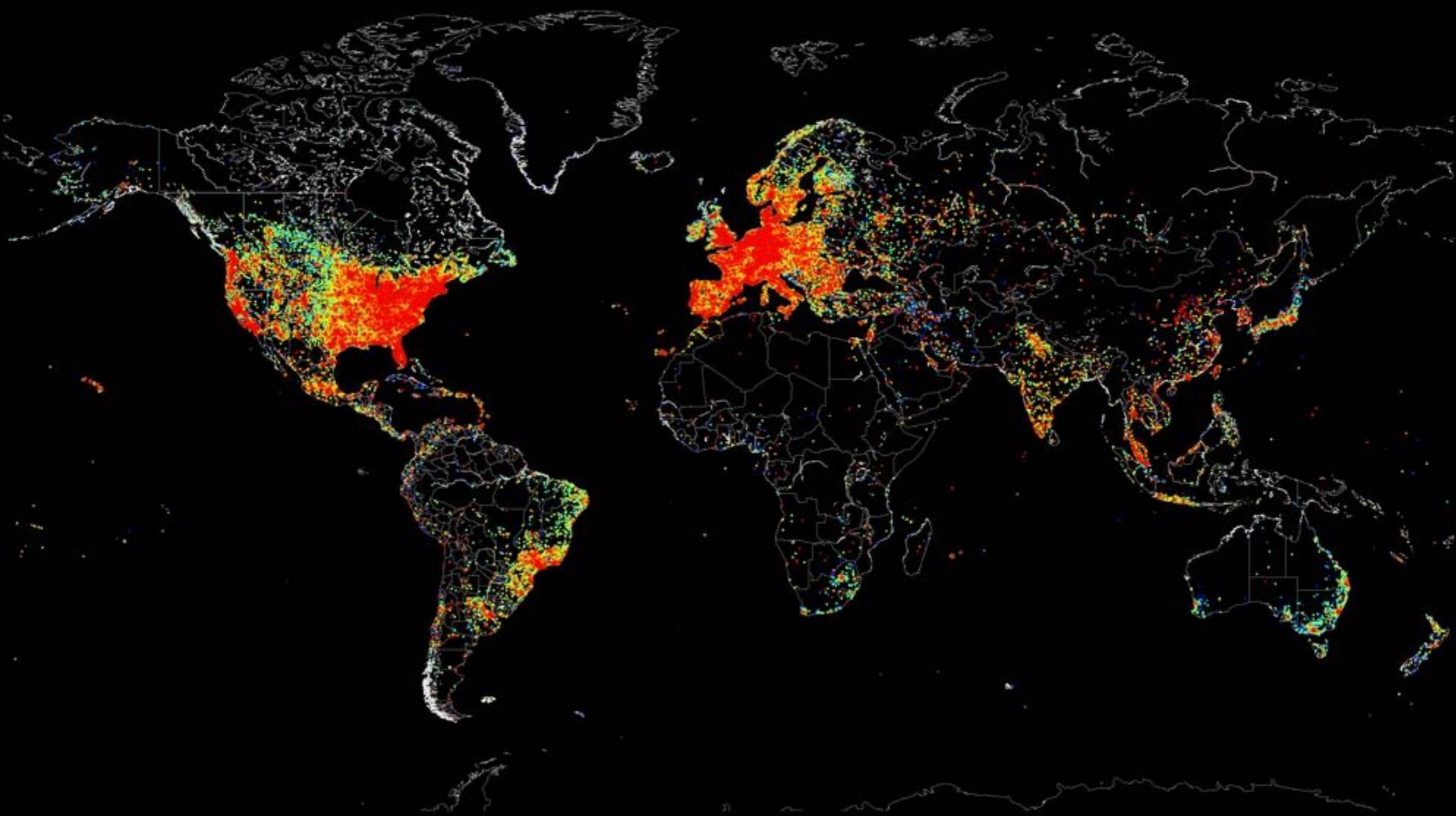
“What hath God wrought?”

TO COMPLETE THE CIRCUIT OF THE GLOBE.

Lines constructed and in operation Lines under contract for construction Mr. Cyrus W. Field's projected Lines



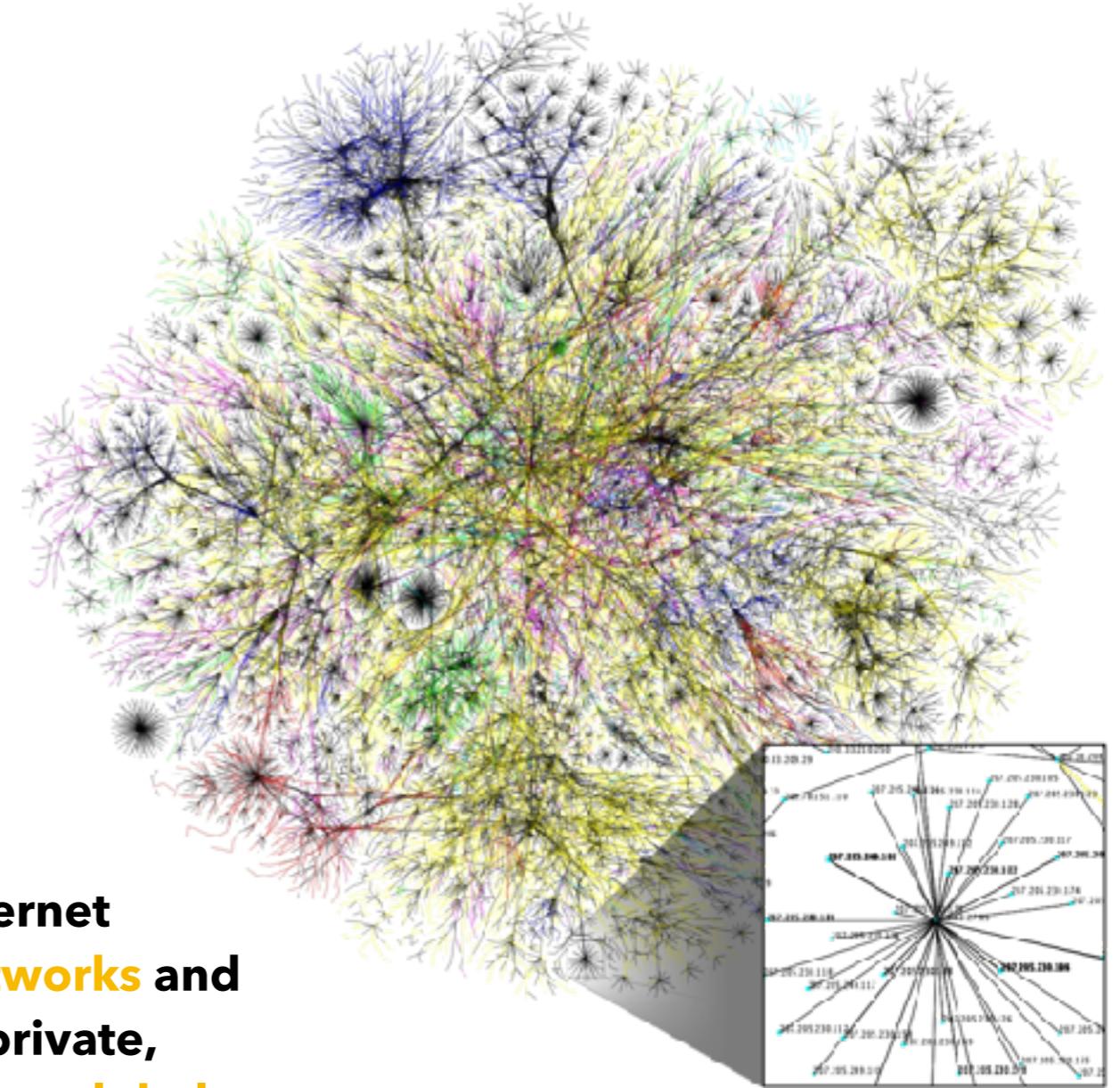
1871 Telegraph cables



2014 map of every connected device

The Internet (or internet) is the global system of interconnected computer networks that uses the Internet protocol suite (TCP/IP) to communicate between networks and devices. It is a network of networks that consists of private, public, academic and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies.

The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail and file sharing.



the internet was
invented to enable
access to remote
computers

who invented the **internet?**

the Defense Advanced Research Projects Agency (aka DARPA)

organized and funded **ARPANET**

"most of the significant advances in computer technology—including the work that my group did at Xerox PARC—were simply extrapolations of Lick's [[Joseph Licklider](#)] vision. They were not really new visions of their own. So he was really the father of it all""

—Robert (Bob) Taylor
head of ARPANET + founder of Xerox Parc



1969 - Arpanet (Advanced Research Projects Agency)

first message sent from UCLA to Stanford via **TCP/IP protocol**

stanford machine had 128 Kb of memory and 24 Mb of disk space



System crashed before rest of the message was transmitted



1974 - Arpanet network map

what is the web?

we colloquially call a URL an address

the URL for this web page is: <https://www.google.com>

A screenshot of a web browser window showing the Google homepage. A large blue arrow points from the text in the top-left towards the browser's address bar. The address bar displays the URL <https://www.google.com>. The page features the classic Google search bar with a magnifying glass icon and a microphone icon for voice search. Below the search bar is a "Google Search" button and an "I'm Feeling Lucky" button. The main content area displays a Google doodle for a scientist, likely Louis Pasteur, working in a laboratory. The scientist is shown holding a test tube and a flask, with a microscope and other laboratory equipment visible. The word "Google" is written in its signature blue, red, yellow, and green colors across the bottom of the doodle. At the bottom of the page, there is a carbon neutrality badge stating "Carbon neutral since 2007". Navigation links for "About", "Store", "Gmail", "Images", and a "Reading List" button are also present.

what is a web page?



.html files almost always live on a server in a directory with other open source “code” files with the extensions: .css and .js. Server storage works much like the local storage on yr laptop (which is why we need to avoid having our class work on any kind of “cloud” as it could (and will!) interfere with your work.

HTML



CSS



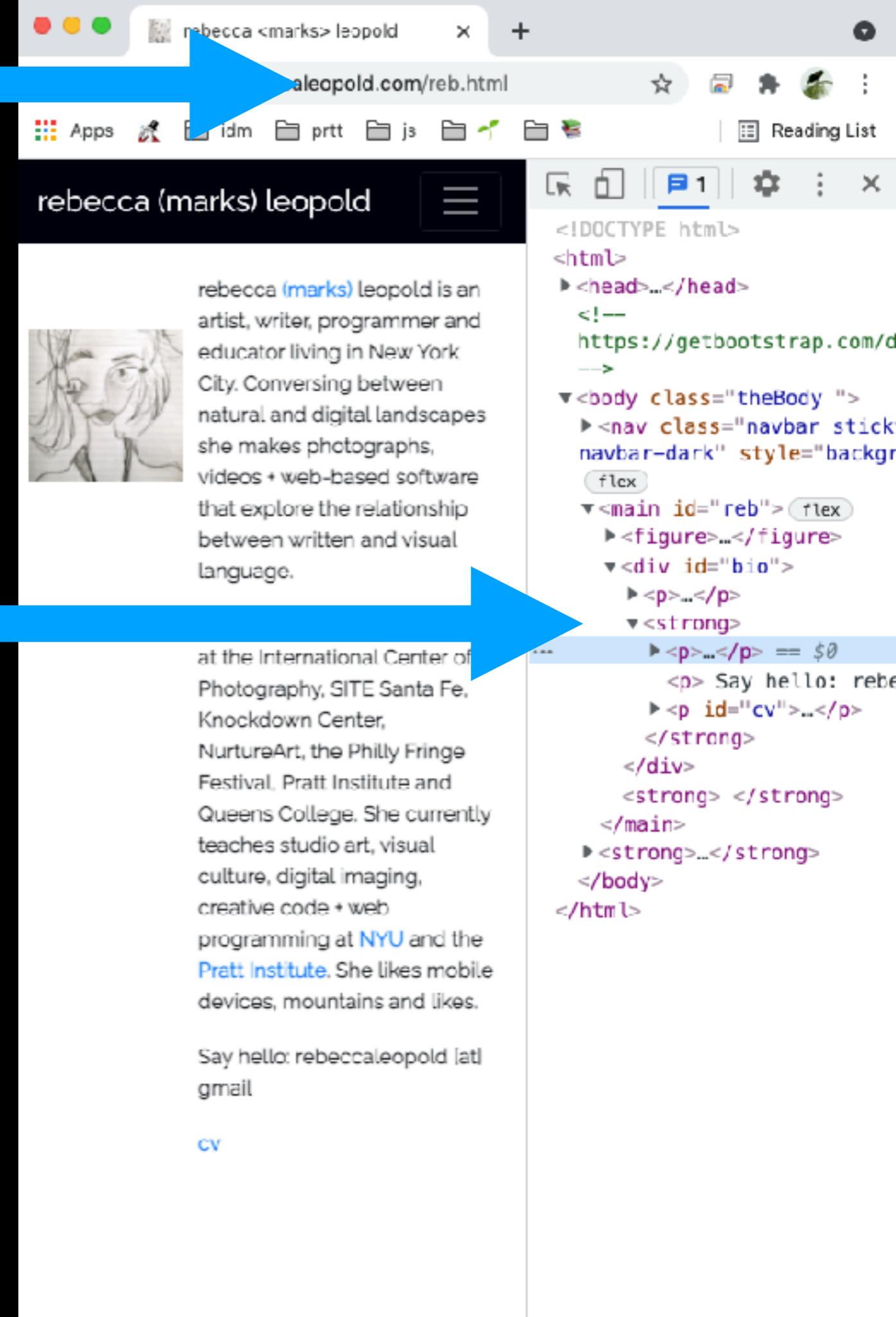
JS



**Web content may be any
type of downloadable media
(text, img, video, pdf) but
web pages are hypertext
documents formatted in
Hypertext Markup Language.**

this page ends in the extension dot **HTML**. As it is an **html** file, much like a Microsoft Word document is **.docx**. Though unlike Word - **html files are open source protocol and can be read by any browser software.**

and here is some of the **HTML "code" under the hood**



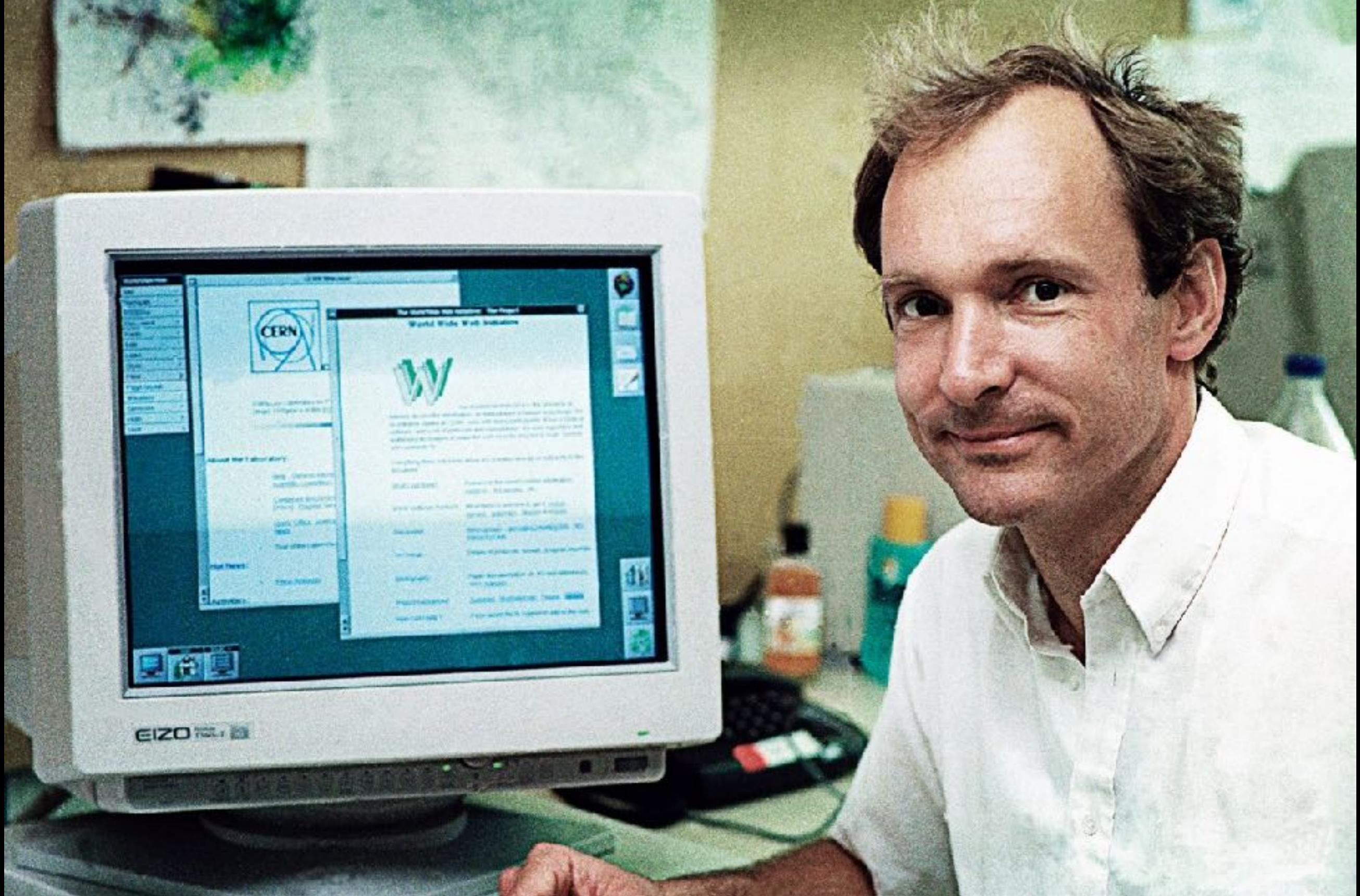
A screenshot of a web browser window showing the source code of a website. The browser bar at the top shows the URL `rebeccaleopold.com/reb.html`. The main content area displays a bio for 'rebecca (marks) leopold' featuring a portrait photo and text about her work. A large blue arrow points from the left text to this bio area. Another large blue arrow points from the bottom text to the right-hand sidebar where the HTML code is displayed. The sidebar shows the structure of the HTML document, including the DOCTYPE, head, body, and various sections like the bio and CV.

```
<!DOCTYPE html>
<html>
  <head>...</head>
  <!--
    https://getbootstrap.com/d...
  -->
  <body class="theBody">
    <nav class="navbar sticky navbar-dark" style="background-color: #333; color: white; padding: 10px; font-size: 1.2em; font-weight: bold; border-bottom: 1px solid black; margin-bottom: 10px; position: relative; z-index: 1;>...</nav>
    <main id="reb"> <flex>
      <figure>...</figure>
      <div id="bio">
        <p>...</p>
        <strong>
          <p>...</p> == $0
          <p> Say hello: rebe...
          <p id="cv">...</p>
        </strong>
      </div>
      <strong> </strong>
    </main>
    <strong>...</strong>
  </body>
</html>
```

omg so now what the what is a Hyper Text Markup Langauge?

The resources for the Web are transferred via the Hypertext Transfer Protocol may be accessed by users by a software application called a browser, and are published by a software application called a server. HTML pages + the servers they communicate with can vary from relatively simple (ie what we'll be doing) to very sophisticated web applications but in any case they must be written in proper HTML syntax in a file with .html extension (although a user might not always see it!)

who invented the web?



1989 - Tim Berners Lee invents the WWW

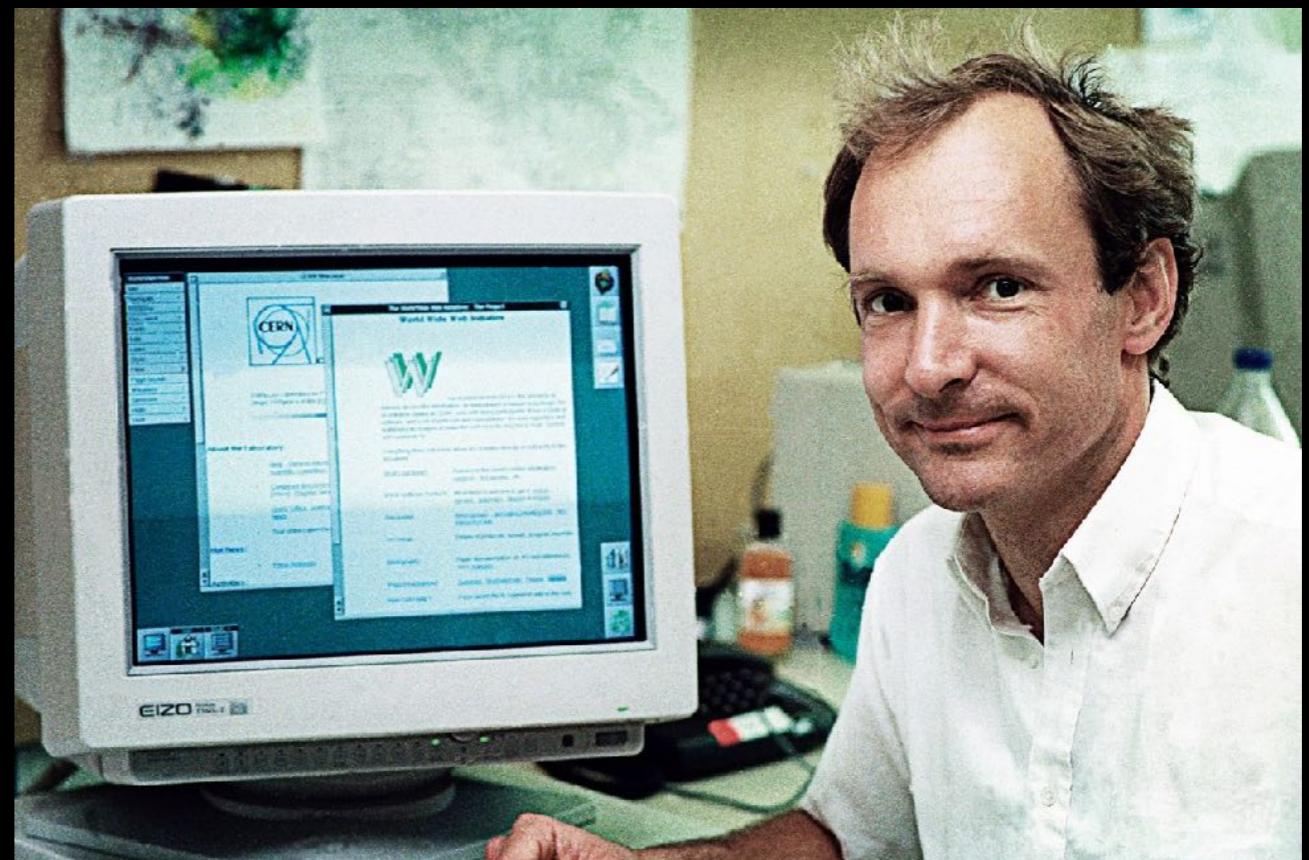
1990 - Tim Berners writes the first web browser at CERN in Switzerland

1991 - The browser released outside CERN + to the general public

1993 -4 - Web begins to enter everyday use

"I still has to find a way to turn text into hypertext, though. This required being able to distinguish text that was a link from text that wasn't. I delved into the files that defined the internal workings of the text editor, and happily found a spare thirty-two bit piece of memory, which the developers of NeXT had graciously left open for future use by tinkerers like me. I was able to use the spare space as a pointer from each span of text to the address for any hypertext link. With this, hypertext was easy."

—Berners Lee, *Weaving the Web*





1989 - First Web Server

Due to the way the computer's storage was designed, Tim Berners-Lee invents the WWW (HTTP) on a NeXT machine

HTML



CSS



JS



Web. 1.0

HTML + CSS + JS

1989 - 2004

Web. 2.0

HTML + CSS + AJAX

c. 2004

It's the difference btw this:

The screenshot shows the Craigslist New York City landing page. The main content is organized into several columns of categories: 'community' (activities, artists, childcare, classes, events, general groups), 'housing' (apts / housing, housing swap, housing wanted, office / commercial, parking / storage, real estate for rent, rooms wanted, rooms needed, sublets / temporary, vacation rentals), 'jobs' (accounting / finance, admin / office, arch / engineering, art / media / design, biotech / science, business / mgmt, customer service, education, food / bev / hosp, general labor, government, human resources, internal engineers, legal / patent, manufacturing, marketing / pr / ad, medical / health, nonprofit / aid, real estate, retail / wholesale, sales / biz dev, tech / spa / fitness, security, skilled trade / craft, software / app / it, systems / network, technical support, transport, tv / film / video, web / info / design, writing / editing [ETC], part-time), 'personal' (strictly platonic, women seek women, women seeking men, men seeking women, men seeking men, misc romance, casual encounters, missed connections, referenced news), 'for sale' (antiques, appliances, electronics, entertainment, auto parts, baby/kid, barter, beauty/bth, books, bikes, boats, boots, business, cameras, cars, cds, clothing, collectibles, computers, electronics, farm/garden, furniture, guitars, jewelry, materials, motorcycles, music instr, photo/video, postcards, power tools, reading, roadmaps, software, toys/games, trailers, video gaming, wanted), 'services' (automotive, beauty, cell/mobile, computer, creative, legal, lessons, marine, pet, crew, domestic, event, labor, talent, writing), and 'gigs' (computer, creative, crew, domestic, event, labor, talent, writing). A sidebar on the left includes a 'post to classifieds' section, a 'search craigslist' search bar, and a 'calendar' showing the current week. The bottom of the sidebar lists links for 'about craigslist', 'craigslist hiring info', 'craigslist open source', 'craigslist blog', 'best-of-craigslist', 'craigslist TV', 'craigslist job', and 'craig connects'.

Craigslist Landing Page
HTML + CSS
(Web. 1.0)

+ this...

The screenshot shows the New York Times homepage. The top navigation bar includes 'STAY IN THE KNOW', 'ENGLISH 中文 (CHINESE) ESPAÑOL', and 'edutainment'. The main headline is 'House Passes Tax Bill but Hurdles Remain for Overhaul' by THOMAS DAVIS ALAN RAPPEPORT, dated 2:31 PM ET. Below the headline is a large image of a group of men in suits. To the right of the image is a sidebar with 'Editorial: The da Vinci Code', 'Fraken Should Go BY MICHAEL GOLDWATER', and 'How to Stop the Predators Who Aren't Famous BY RANDI KORNBLUTH'. The middle section contains a 'NEWS ANALYSIS' article 'GOP Tax Writers Take Aim at College Tuition Benefits' by ERICA L. GREEN, dated 10:01 PM ET. To the right of this is another sidebar with 'Editorial: The da Vinci Code', 'Fraken Should Go BY MICHAEL GOLDWATER', and 'How to Stop the Predators Who Aren't Famous BY RANDI KORNBLUTH'. The bottom section features a 'FROM THE MAGAZINE' article 'Menendez Case Ends in Mistrial After Jury Deadlocks' by JAMES LINDNER, dated 7:38 PM ET. To the right of this is a sidebar with 'Editorial: The da Vinci Code', 'Fraken Should Go BY MICHAEL GOLDWATER', and 'How to Stop the Predators Who Aren't Famous BY RANDI KORNBLUTH'. The bottom right corner shows a small image of a person.

NY Times Landing Page
HTML, CSS + JS
(Web. 2.0)

Web. 1.0

HTML + CSS + JS

1989 - 2004

HTML - Hyper Text Mark Up

is a grammar for structuring web pages. It defines paragraphs, headings, data tables + media elements. HTML describes the content of the page - not how it looks.

CSS - Cascading Style Sheet

rules for styling a web page. Setting colors, positioning, typeface, layout and even timing. It can be used to consider the design of your page across different platforms and screen sizes.

```
<!DOCTYPE html>
<html>
  <head>
    <title> 🖥 Inro to CSS</title>
  </head>
  <body>
    <h1>
      This Webpage though....
    </h1>
    <p>
      here is a page of text. here is a page of text. here...
    </p>
    <img src = "https://media.giphy.com/media/
IYf4uAJEWVo1FffnVD/giphy.gif">
  </body>
</html>
```

This Webpage though....

here is a page of text. here is a page of text. here...



html looks like this:

CSS - Cascading Style Sheet

```
h1 {  
    color: #FF4500  
}  
  
body {  
    background: #000080;  
    font-family: sans-serif;  
    color: rgb(255,255,255);  
}  
  
body p {  
    font-family: 'Courier New';  
}
```



html + css:

You are required to use Unix via a command line to upload your personal class site hosted on Github / Github Pages servers (fyi it's totally free!).

- Mac: terminal (comes installed)
- Wndws: Linux Bash Shell (might have to install)

Using any other software (skin) to upload or host your class site is prohibited (ie GitHub Desktop, SFTP, Glitch, NYU's Wordpress site creator, etc). If your class site is not hosted on Github Pages via a Unix command line you will lose a full letter grade on every assignment.