



# INTRODUCTION TO WEB DESIGN & COMPUTER PRINCIPLES



# **What is the Internet?**

**THE global system of interconnected computer networks.**

**It is a *network of networks* that consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web(WWW), electronic mail, telephony, and file sharing.**

# Internet and the Web

**They are distinct but RELATED!**

**The Web is just one way of accessing information over the Internet but it will be the subject of this class.**



# Internet Access: 1980's - Present

## Personal Computing



# Internet Access: 1980's - Present

## Portable Computing



# Internet Access: 1980's - Present

## Mobile Computing



# Internet Access: 1980's - Present

## Ubiquitous Computing



# Internet Access: 1980's - Present

## A.I. and Ambient Computing







Sam Whitehead / GPB

# **The Digital Revolution**

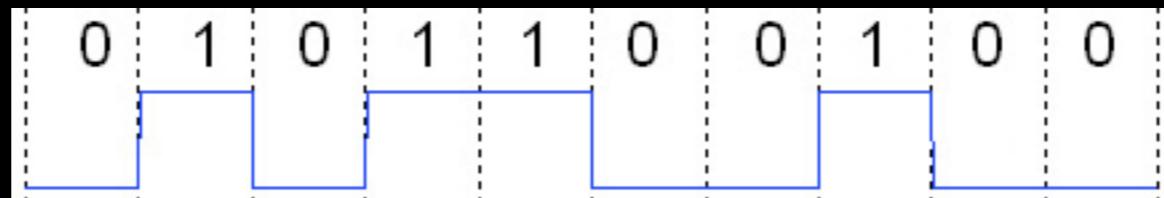
**Shift from analog and electric to digital**

**Mass production of devices including the computer, mobile phone, and internet and its dependance on digital circuits- which drive all of the above.**



# Digital Media Signal

1 and 0



**Single and Effbit**

**8 bits = 1 byte**

~~1000 bytes = 1 kilobyte (KB)~~

**1 million bytes = 1 megabyte (MB)**

**1024 megabytes = 1 gigabyte (GB)**

**Acoustic Pressure**

# **Moore's Law**

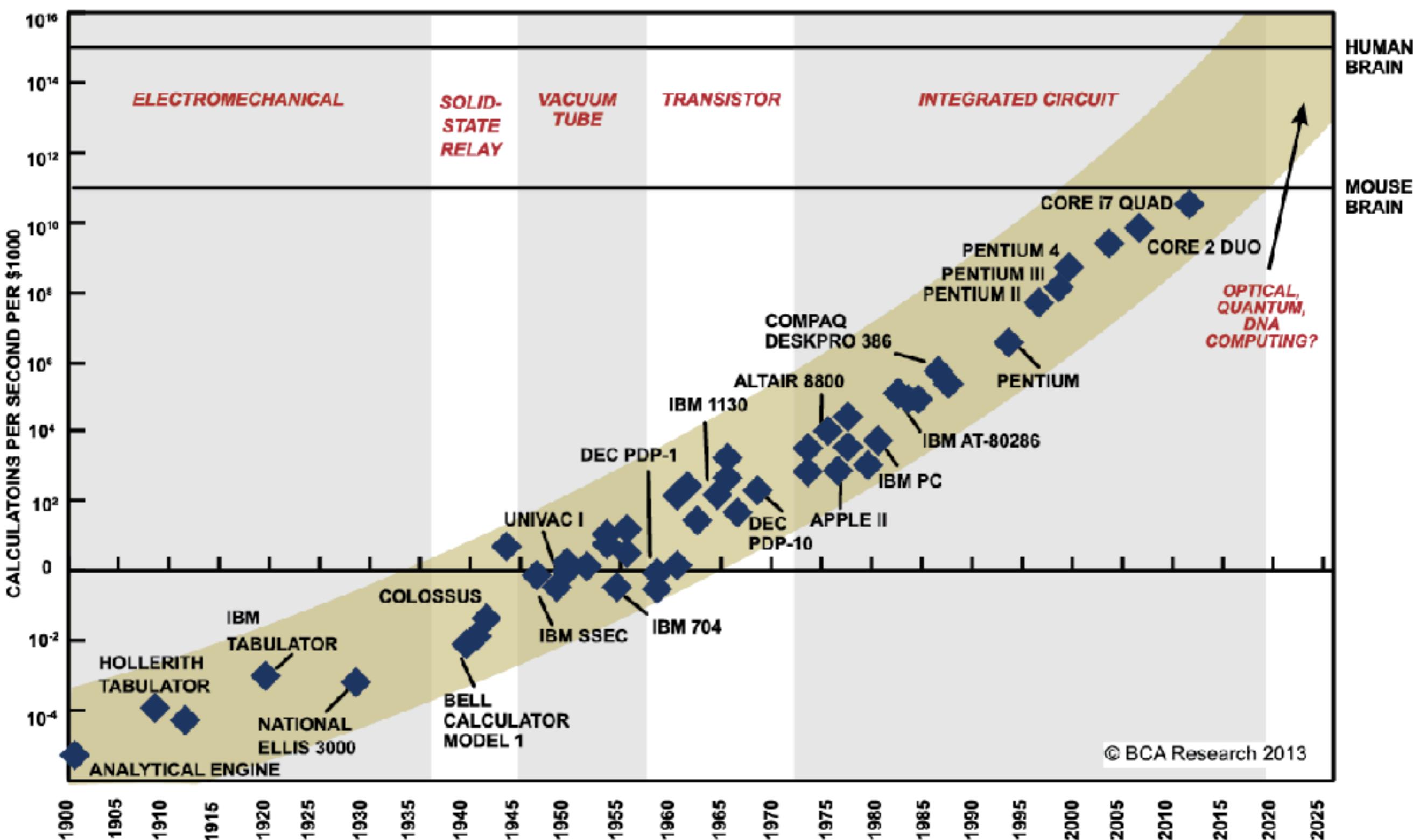
**Describes a constant rate of change in computer processor speed**

**The number of transistors that can be placed inexpensively on an integrated circuit doubles every two years.**

**The number of transistors is closely connected to processor speed, memory, etc.**

**Computer processor speed has doubled approximately every two years.**

**Moore's Law seems to be plateauing but has held steady for the past 40 years.**



SOURCE: RAY KURZWEIL, "THE SINGULARITY IS NEAR: WHEN HUMANS TRANSCEND BIOLOGY", P.67, THE VIKING PRESS, 2006. DATAPoints BETWEEN 2000 AND 2012 REPRESENT BCA ESTIMATES.

# Course Content

## Unix Command Line



# Course Content

Unix Command Line  
HTML



# Course Content

**Unix Command Line**

**HTML**

**CSS**

**CSS**



# Course Content

Unix Command Line

HTML

CSS

Image Editing

Animation



# Course Content

Unix Command Line

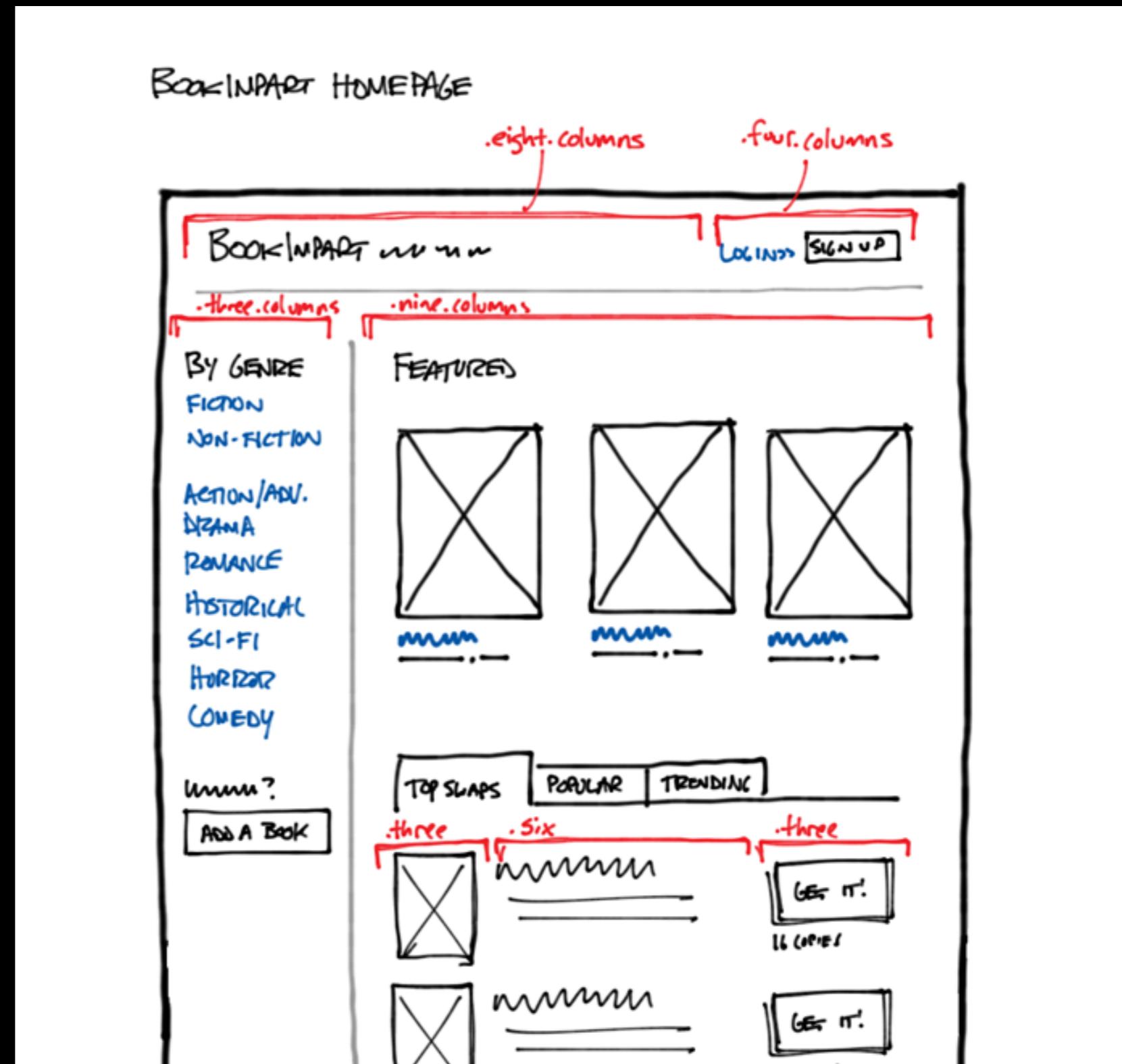
HTML

CSS

Image Editing

Animation

Design and Wireframing



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**Unix Command Line**

**HTML**

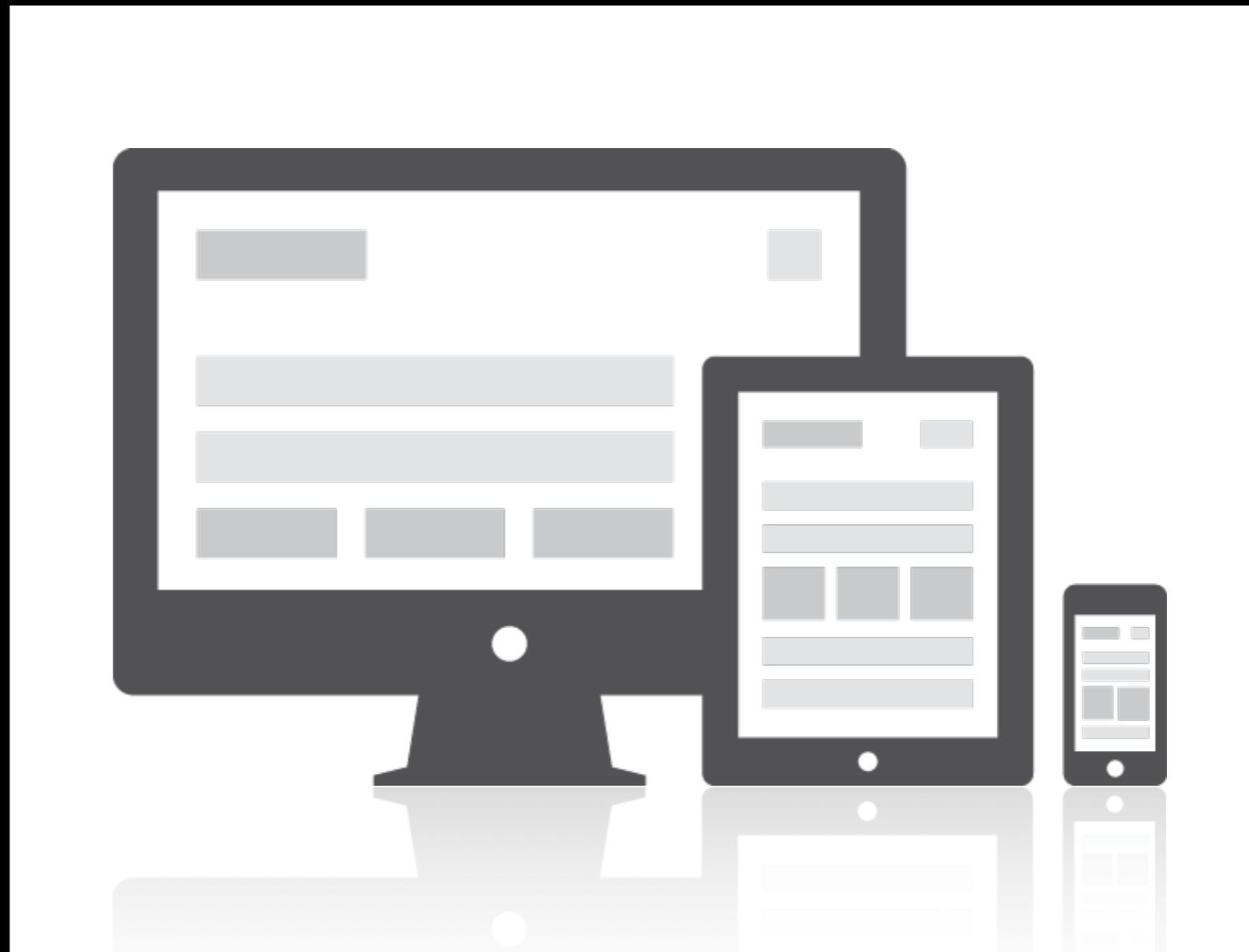
**CSS**

**Image Editing**

**Animation**

**Design and Wireframing**

**Responsive Web Design**



# Course Content

**Unix Command Line**

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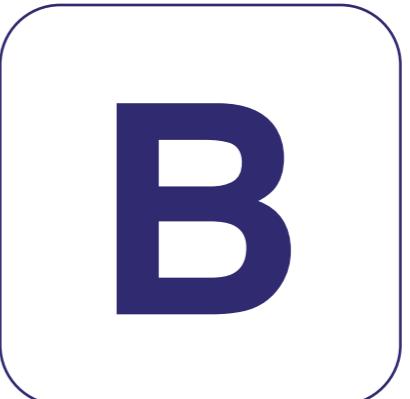
**Image Editing**

**Animation**

**Design and Wireframing**

**Responsive Web Design**

**Web Frameworks**



**B**

# Course Content

**Unix Command Line**

**HTML**

**CSS**

**Image Editing**

**Animation**

**Design and Wireframing**

**Responsive Web Design**

**Web Frameworks**

**Web Audio and Video**



# Course Content

**Unix Command Line**

**HTML**

**CSS**

**Image Editing**

**Animation**

**Design and Wireframing**

**Responsive Web Design**

**Web Frameworks**

**Web Audio and Video**

**JQuery**



# Course Content

**Unix Command Line**

**HTML**

**CSS**

**Image Editing**

**Animation**

**Design and Wireframing**

**Responsive Web Design**

**Web Frameworks**

**Web Audio and Video**

**JQuery**

**Web Forms**

Name

Email

Website

Submit

# **Course Content**

**Unix Command Line**

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**Animation**

**Design and Wireframing**

**Responsive Web Design**

**Web Frameworks**

**Web Audio and Video**

**JQuery**

**Web Forms**

**Web Hosting and Domains**

**ME**

**Jason Aston  
Adjunct Professor**

**aston@cs.nyu.edu**

**Office Hours:  
Tuesdays 12:15PM - 1:15PM  
ROOM 328 in this building  
BUT make an appointment!**



# **Teaching Assistant**

**Chhavi Yadav**

**cy1235@nyu.edu**

# YOU

**State your name**

**(And any nickname you would like to be called in class)**

**Where are you from?**

**Describe your coding/programming literacy**

**Why are you taking this class?**

# **Syllabus**

## **ATTENDANCE**

**You are expected to come to all classes and arrive on time.**

**Please let me know in advance if you will be out for any reason.**

**Please let me know if you miss class due to illness.**

**Computers are welcome in class but not required.**

**If you ever feel overwhelmed or need extra help, I will be available to you.**

# Syllabus

## TEXTBOOK

*HTML and CSS:  
Design and Build Websites*

Jon Duckett

ISBN: 978-1-118-00818-8

# **Syllabus**

## **ASSIGNMENTS**

**There will be eight assignments over the course of the semester.**

**Details of each assignment will be posted on the class website.**

**All assignments are to be submitted via NYU Classes.**

**Do your best to turn work in on time. 10% will be deducted for each class day after the deadline.**

**No assignments will be accepted after three classes or after the final exam.**

# **Syllabus**

## **GRADING**

**Assignments: 40%**

**Midterm exam: 25%**

**Final exam: 35%**

# **FOR NEXT CLASS**

**Review the class website!**

**<http://cs.nyu.edu/courses/fall17/CSCI-UA.0004-004/>**

**OR**

**<http://www.jason-aston.com/introweb>**

**AND**

**Read the introduction section of our required book.**