Graphics on the Web
Graphics on the Web

Raster Graphics

GIF: Graphics Interchange Format
JPEG: Joint Photographic Experts Group
PNG: Portable Network Graphics
WebP: A new, lossless and lossy image compression format for the Web
Graphics on the Web

Vector Graphics

SVG: Scalable Vector Graphics
CSS (vector-like capability)
Graphics on the Web
The Internet and the Web

The Internet and the Web are separate but related things.

The Internet is a massive network of networks, a networking infrastructure that connects computers globally.

The Web is a way of accessing information over the medium of the Internet, an information sharing model that is built on top of the Internet.

The Web is just one of the ways that information can be disseminated over the Internet but it is the one we are focused on in this class.
Graphics on the Web

State of Flux

“The future is already here—it’s just not evenly distributed.”

—William Gibson
The technologies discussed in this class are evolving.

They are agreed upon standards but not evenly implemented.

Modern browsers support almost everything we will do, but not everyone uses up-to-date, modern browsers (and that’s ok).

Web graphics technologies are, as ever, in a state of flux.
Drawing on the Web
We will explore the ways in which code can be applied to generate interactive, Web-based graphics.

We will not be focusing on just one language or technique, but several.

While we will spend the most time in JavaScript, this will be during the second half of the semester.

You are encouraged to integrate multiple techniques in your work.
Drawing on the Web
HTML and CSS

Class 1
Introduction and Overview

Review foundations
Explore new modes of implementation
Drawing on the Web

SVG

Scalable Vector Graphics
Hand-coding
Illustration software
Creating an icon system
Integration with CSS
Drawing on the Web
CSS Animation

Class 1
Introduction and Overview

Transitions
Transforms
Animation
Drawing on the Web
Version Control
and Collaboration

GitHub
Iterative approach to creative code
Maintain snapshots of work
Project collaboration
Drawing on the Web
JavaScript

Class 1
Introduction and Overview

Review essentials
Enhance interactivity
Animation techniques
Objects, properties, and methods
Drawing on the Web
HTML Canvas

Using JavaScript with HTML5
The canvas element allows you to draw raster graphics on the fly
Drawing on the Web

Drawing in three dimensions on the Web

Websites as places rather than pages

We will use the JS library, three.js
Drawing on the Web

Outline

Class 1
Introduction and Overview

- HTML and CSS
- SVG
- CSS Animation
- Version Control and Collaboration
- JavaScript
- HTML Canvas
- WebGL
Drawing on the Web

This course is not:

- A complete beginner-level class
- An advanced programming class
- A comprehensive introduction to JavaScript
- A game development class
- Fixed/static
“Net art, like Process Art, Performance art and Happenings, is less an object for contemplation than an event or action that takes place over time.”

—Mark Tribe/Reena Jana
Simple Net Art Diagram

The art happens here

MTAA ca. 1997

http://www.mtaa.net/mtaaRR/off-line_art/snad.html
Introductions
Introductions

Me

Joshua Clayton
Clinical Assistant Professor
jclayton@cs.nyu.edu

Office hours
• Tuesday, 12:30–1:30 p.m.
• Thursday, 3:30–4:30 p.m.

Room 420, Warren Weaver Hall

cs.nyu.edu/cs/faculty/clayton
Introductions
You
Syllabus
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 encouraged in class during project development sessions.

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

Texts

Using SVG with CSS3 and HTML5: Vector Graphics for Web Design

Eloquent JavaScript: A Modern Introduction to Programming

Mass Effect: Art and the Internet in the Twenty-First Century
There will be seven assignments and one final project.

Details of each will be posted on the class website.

All assignments are due before class, 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 Rubric

Assignments: 40%
Midterm exam: 20%
Final project: 20%
Final exam: 20%