



Movies on the Web

#### Announcements

- Second Test: Wednesday April 23
  - Test prep questions are on the course web site
- Project Presentations
  - Monday, April 28
  - Wednesday, April 30

## **Team Presentations**

#### Monday

- 1. ContraWeb
- 2. Team RNG
- 3. Tautology
- 4. Synapps
- 5. SqlThePrql
- 6. Hacklemore

#### Wednesday

- 7. Sk3m Team
- 8. Llama
- 9. Backslash
- 10. Lannister
- 11. C.O.D.E.



#### Adobe Flash

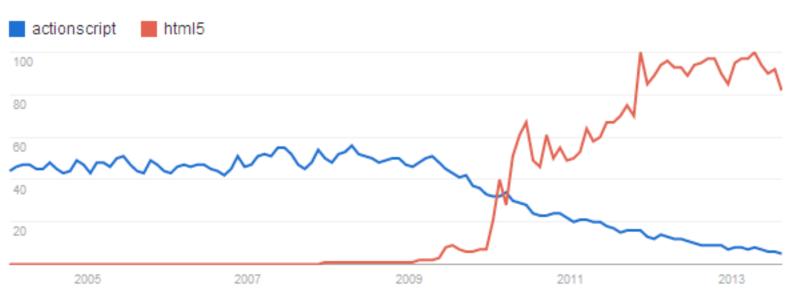
- Multimedia and software platform for creating interactive video
- Adobe Flash Professional
  - Proprietary development application
- Adobe Flash Player
  - free plug in for web browsers that show Flash applications

## **Outdated** software

- Previously the most widely available animation platform.
- Declining usage; Move towards HTML5
  - November 2011 Adobe announces end of Flash for model platforms and TV—focus on TML5

## Flash vs HTML5

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□ From: Eric Rowel, Web Graphics Trends in 2013

http://www.html5canvastutorials.com/articles/web-graphics-trends-in-2013/

Actionscript is the Flash languages
Flash is notorious for security flaws
It does not run on mobile devices

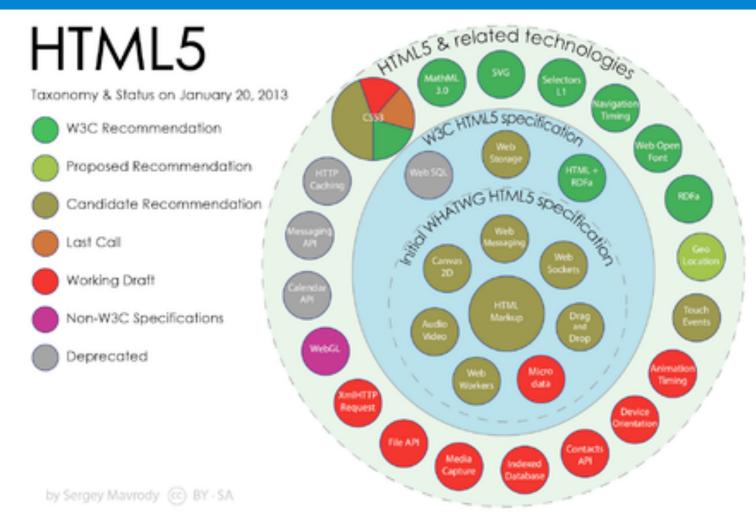
## HTML 5

#### New tags

video>, <audio>,

- <canvas>: Area than can be drawn using JavaScript
- support for Scalable Vector Graphics

## HTML5 APIs



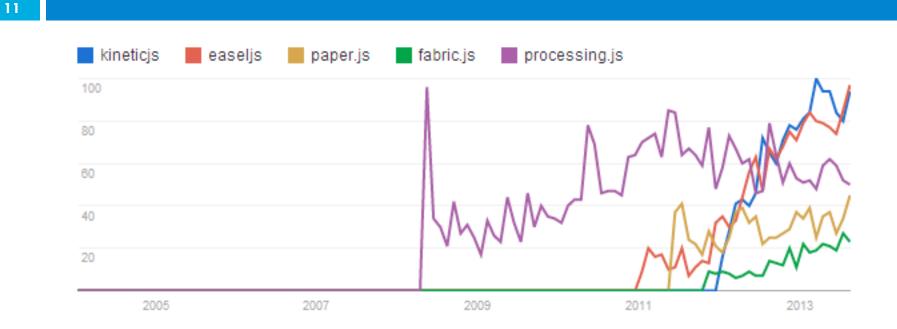
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## **HTML5** Visualization tools

#### Scalable Vector Graphics (SVG)

- Vector graphic engine that adds DOM nodes representing shapes like circles, lines and polygons
- Internet Explorer uses Vector Markup Language (VML)
  - There are libraries to deal with both (e.g., Raphael.js)
- Canvas
  - Rendered using bitmap from a single object so better performance but not events
  - Works only on newer browsers.

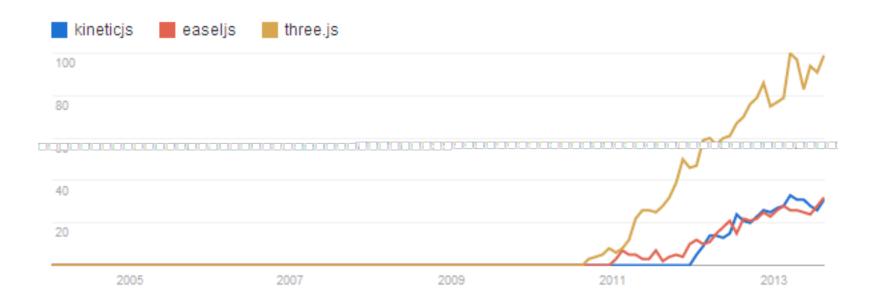
## Libraries for 2D Canvas



#### □ From: Eric Rowel, Web Graphics Trends in 2013

http://www.html5canvastutorials.com/articles/web-graphics-trends-in-2013/

## Libraries for 3D Canvas



#### □ From: Eric Rowel, Web Graphics Trends in 2013

http://www.html5canvastutorials.com/articles/web-graphics-trends-in-2013/

# Move away from SVG

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http://www.html5canvastutorials.com/articles/web-graphics-trends-in-2013/

raphael.js is a library for SVG/VML
easel.js and kinetic.js are for canvas

## Eric Rowel's recommendations

#### □ If your application is 2d,

- Must run in all browsers, including IE6 IE8
  - Raphael.js (MIT license)
- Is simple, and doesn't need mouse or touch event handlers
  - native HTML5 canvas app. (in browser)
- Is complex, and needs mouse or touch event handlers,
  - KineticJS (MIT or GPL v2) or EaseIJS (MIT).
- If you're creating anything that's 3d
  - Three.js (MIT)

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Discuss questions with your Scrum Team