

## tutorial(s) – web [html/css/js]

[help](#) / [lookat\(s\)](#) / [chart\(s\)](#)

### section(s)

- 0: getting started
- 1: rise of the web(s)
- 2: html basics
- 3: styling with css
- 4: javascript programming
- 5: coding principle(s) & practice(s)
- 6: graphics with canvas
- 7: server-side coding
- 8: rich internet application frameworks
- 9: wrap up(s)

### section 0 – getting started

[section 0 – getting started](#)

- [lookat](#) – [www.alexa.com/topsites](http://www.alexa.com/topsites)
- [read](#) – [about firefox 3.5](#)
- [explore](#) – [www.google.nl/search?q=web+technology](http://www.google.nl/search?q=web+technology)

### select (y)our browser(s)

[choose \(y\)our browser\(s\)](#)

- [firefox 3.5 \(\\*\)](#) – [www.mozilla-europe.org/en/firefox](http://www.mozilla-europe.org/en/firefox)
- [safari](#) – [www.apple.com/safari/download](http://www.apple.com/safari/download)
- [opera](#) – [www.opera.com/download](http://www.opera.com/download)
- [chrome](#) – [www.google.com/chrome](http://www.google.com/chrome)
- [iexplorer \(6/7/8\)](#) – [www.microsoft.com/windows/internet-explorer](http://www.microsoft.com/windows/internet-explorer)

(\*) FF 3.5 is (y)our reference browser!

## install the tool(s)

install the tool(s)

- edit & debug – [getfirebug.com](http://getfirebug.com) / web developer<sup>1</sup>
- inspector – view source<sup>2</sup> / debugger<sup>3</sup> [optional]
- editor(s) – [www.winedt.com](http://www.winedt.com) / [www.flashdevelop.org](http://www.flashdevelop.org)
- tool(s) – filezilla<sup>4</sup> / classic ftp<sup>5</sup>
- IDE [optional] – netbeans<sup>6</sup> / visual studio express<sup>7</sup> / web developer<sup>8</sup>
- server(s) [optional] – WAMP<sup>9</sup> / LAMP<sup>10</sup>
- analyser(s) [optional] – packet sniffer(s)<sup>11</sup>

## learning (with/by/from) example(s)

learning (with/by/from) example(s)

- hands on experience – **explore, copy & paste, understand, adapt**
- **read what you need**– see other course(s) / wikipedia
- search & explore – [www.google.nl/search?q=web+code+example](http://www.google.nl/search?q=web+code+example)
- **focus** – basic exercise(s) / final application(s)
- reflect – **write** essay(s) / blog(s)

## a touch of style(s) & behavior(s)

a touch of style(s) & behavior(s)

- lookat – **bubble(s)** / cupid(s) / bat(s) / timer(s) / game(s) / heart(s) / **snake(s)**
- explore – canvas / parallax / **processing** / S5 / **math(s)** / bullit(s) / **tool(s)**
- meet – the **blob(s)** again / play(s) / **eliza**

## other course(s)

other course(s)

- course(s) – web technology @ VU (\*)
- search – [www.google.nl/search?q=course+webtechnology](http://www.google.nl/search?q=course+webtechnology)
- resource(s) – **web design**<sup>12</sup> / tool(s)<sup>13</sup>

(\*) with kind permission of Jacco van Ossenbruggen and Guus Schreiber

<sup>1</sup> [/addons.mozilla.org/en-US/firefox/addon/60](http://addons.mozilla.org/en-US/firefox/addon/60)

<sup>2</sup> [jennifermadden.com/scripts/ViewRenderedSource.html](http://jennifermadden.com/scripts/ViewRenderedSource.html)

<sup>3</sup> [www.mozilla.org/projects/venkman](http://www.mozilla.org/projects/venkman)

<sup>4</sup> [filezilla-project.org](http://filezilla-project.org)

<sup>5</sup> [www.nchsoftware.com/ftp](http://www.nchsoftware.com/ftp)

<sup>6</sup> [www.netbeans.org](http://www.netbeans.org)

<sup>7</sup> [www.microsoft.com/express/product](http://www.microsoft.com/express/product)

<sup>8</sup> [www.coffeecup.com](http://www.coffeecup.com)

<sup>9</sup> [www.appservnetwork.com](http://www.appservnetwork.com)

<sup>10</sup> [lamphowto.com](http://lamphowto.com)

<sup>11</sup> [www.all-internet-security.com/free\\_sniffer\\_ip\\_pro.html](http://www.all-internet-security.com/free_sniffer_ip_pro.html)

<sup>12</sup> [htmlhelp.com/links](http://htmlhelp.com/links)

<sup>13</sup> [meyerweb.com/eric/tools](http://meyerweb.com/eric/tools)

## section 1 – rise of the web(s)

section 1 – rise of the web(s)

- lookat – [www.jodi.org](http://www.jodi.org)
- read – a little history of the world wide web<sup>14</sup> / **social web**<sup>15</sup>
- explore – museum of web art<sup>16</sup> / the machine is us/ing us<sup>17</sup>

## the next generation(s)

the next generation(s)

- 1.0 – [en.wikipedia.org/wiki/Web\\_1.0](http://en.wikipedia.org/wiki/Web_1.0)
- 2.0 – [en.wikipedia.org/wiki/Web\\_2.0](http://en.wikipedia.org/wiki/Web_2.0)
- 3.0 – [en.wikipedia.org/wiki/Special:Search/Web\\_3.0](http://en.wikipedia.org/wiki/Special:Search/Web_3.0)
- 4.0 – **start planning now**<sup>18</sup> / at intel!<sup>19</sup> / near you!<sup>20</sup>
- 5.0 – **where will it end?**<sup>21</sup>

## (non) exhaustive question(s)

(non) exhaustive question(s)

- what is – **the semantic web?**<sup>22</sup>
- how to – **understand the web as media?**<sup>23</sup>
- do you participate in – **a social web?**<sup>24</sup>
- do you know (y)our – **web protocol(s)?** / really?<sup>25</sup>
- why use – **web services?**<sup>26</sup>

## (more) tutorial(s) about

(more) tutorial(s) about

- essential(s) – clients, servers & communication / markup language(s) / style sheets
- in-depth – scripting (1) / scripting (2) / **server(s)**
- evaluation(s) – user studies & analytic(s)

<sup>14</sup>[www.w3.org/History.html](http://www.w3.org/History.html)

<sup>15</sup>[code.google.com/apis/opensocial](http://code.google.com/apis/opensocial)

<sup>16</sup>[www.mowa.org](http://www.mowa.org)

<sup>17</sup>[mediatedcultures.net/ksudigg/?cat=7](http://mediatedcultures.net/ksudigg/?cat=7)

<sup>18</sup>[www.w3.org/2006/Talks/06-08-steven-web40](http://www.w3.org/2006/Talks/06-08-steven-web40)

<sup>19</sup>[blogs.intel.com/it/2006/11/web\\_40\\_a\\_new\\_hype.php](http://blogs.intel.com/it/2006/11/web_40_a_new_hype.php)

<sup>20</sup>[www.almosttruenews.com/index.php/2006/03/23/web-40-coming-to-an-internet-near-you](http://www.almosttruenews.com/index.php/2006/03/23/web-40-coming-to-an-internet-near-you)

<sup>21</sup>[www.google.nl/search?q=web+5.0](http://www.google.nl/search?q=web+5.0)

<sup>22</sup>[semanticweb.org](http://semanticweb.org)

<sup>23</sup>[www.lab404.com/media](http://www.lab404.com/media)

<sup>24</sup>[en.wikipedia.org/wiki/Social\\_web](http://en.wikipedia.org/wiki/Social_web)

<sup>25</sup>[moneywatch.bnet.com/career-advice/article/6-online-networking-mistakes-to-avoid/322995](http://moneywatch.bnet.com/career-advice/article/6-online-networking-mistakes-to-avoid/322995)

<sup>26</sup>[www.w3schools.com/webservices](http://www.w3schools.com/webservices)

## section 2 – html basics

section 2 – html basics

- lookat – miles davis / **basic(s)**
- read – getting started<sup>27</sup> / learning by example(s)<sup>28</sup> / **tutorial(s)**<sup>29</sup>
- explore – element(s) / **validator.w3.org**

## basic (html) element(s)

basic (html) element(s)

- **document(s)** – page(s) / heading(s) / break(s) / emphasis / **block(s)**
- list(s) – bullet(s) / number(s) / definition(s) / nesting(s) / example(s)
- link(s) – destination(s) / anchor(s) / menu(s) / example(s)
- image(s) – apple(s) / link(s) / map(s) / example(s)
- table(s) – basic(s) / span(s) / cinema / example(s)
- form(s) – example(s) / **query?**
- frame(s) – fruit / preview(s) / example(s)
- **deprecated** – beware(s)!

## objects, images & applets

objects, images & applets

- **lookat** – net art / **page(s)** / config(s) / display(s) / math
- read – objects, images & applets<sup>30</sup> / embedding video<sup>31</sup> / **iframe(s)**<sup>32</sup>
- **explore** – draw / bridge(s) / **flowplayer.org/demo** / jsobject<sup>33</sup>

## (future) development(s)

(future) development(s)

- **consider** – **XML**<sup>34</sup> / video tag(s) / SVG / MathML
- read – about HTML 4.0 / HTML 5<sup>35</sup> / **XHTML**<sup>36</sup>
- **study** – www.w3schools.com/xhtml / reference(s)<sup>37</sup>

<sup>27</sup>www.cs.tut.fi/~jkorpela/html-primer.html

<sup>28</sup>www.cs.tut.fi/~jkorpela/HTML3.2

<sup>29</sup>www.w3schools.com/html

<sup>30</sup>www.w3.org/TR/REC-html40/struct/objects.html

<sup>31</sup>www.htmlgoodies.com/tutorials/web\_graphics/article.php/3480061

<sup>32</sup>www.dyn-web.com/tutorials/iframes

<sup>33</sup>java.sun.com/products/plugin/1.3/docs/jsobject.html

<sup>34</sup>www.wdvl.com/Authoring/Languages/XML/XHTML

<sup>35</sup>en.wikipedia.org/wiki/HTML\_5

<sup>36</sup>www.javascriptkit.com/howto/xhtml\_intro4.shtml

<sup>37</sup>www.zvon.org/xxl/xhtmlReference/Output

## section 3 – styling with css

section 3 – styling with css

- lookat – first / font(s) / table(s) / style(s) / attribute(s) / **thinking inside**
- read – style sheet(s) / **www.w3schools.com/css** / transition(s)
- explore – [www.wellstyled.com/links.html](http://www.wellstyled.com/links.html) / example(s) / basic(s) / **menu(s)**

## css element(s)

css element(s)

- **font(s)** – properties / size(s) / weight(s) / **style(s)**
- **text** – color(s) / align(s) / vertical / decoration(s) / spacing(s) / test(s)
- **selector(s)** – child(s) & sibling(s) / **attribute(s)**
- **box model** – border(s) / padding(s) / margin(s) / size(s) / overflow(s)
- **html** – heading(s) / div(s) / link(s) / table(s) / list(s) / cursor(s) / **element(s)**

## switching style(s)

switching style(s)<sup>38</sup>

- lookat – christmas carol(s) / **reset(s)**
- read – jquery for designer(s)<sup>39</sup> / **tutorial(s)**<sup>40</sup>
- explore – **jquery.com** / docs.jquery.com/Selectors

## presenting (the) slide(s)

presenting (the) slide(s)

- lookat – **presenting with s5** / math(s)
- read & download – [meyerweb.com/eric/tools/s5](http://meyerweb.com/eric/tools/s5)
- explore & adapt – selection(s) [slide]
- **reflect on – powerpoint is evil**<sup>41</sup> / resource(s)

## how (not) to (design) style(s)

how (not) to (design) style(s)

- lookat – [icant.co.uk/csstablegallery/](http://icant.co.uk/csstablegallery/) / [www.freecsstemplates.org/](http://www.freecsstemplates.org/) / **bullet(s)**
- read – web 2.0: design & layout trend(s) / design guide<sup>42</sup> / visual design<sup>43</sup>
- explore – **www.csszengarden.com** / resource(s)<sup>44</sup> / layer(s)<sup>45</sup> / **tool(s)**

<sup>38</sup>[www.cs.vu.nl/~eliens/.CREATE/assign-nm1-basic.html](http://www.cs.vu.nl/~eliens/.CREATE/assign-nm1-basic.html)

<sup>39</sup>[www.webdesignerwall.com/tutorials/jquery-tutorials-for-designers](http://www.webdesignerwall.com/tutorials/jquery-tutorials-for-designers)

<sup>40</sup>[docs.jquery.com/Tutorials:jQuery\\_For\\_Designers](http://docs.jquery.com/Tutorials:jQuery_For_Designers)

<sup>41</sup>[www.wired.com/wired/archive/11.09/ppt2.html](http://www.wired.com/wired/archive/11.09/ppt2.html)

<sup>42</sup>[webdesignfromscratch.com/web-design/web-2.0-design-style-guide.php](http://webdesignfromscratch.com/web-design/web-2.0-design-style-guide.php)

<sup>43</sup>[f6design.com/journal/2006/10/21/the-visual-design-of-web-20](http://f6design.com/journal/2006/10/21/the-visual-design-of-web-20)

<sup>44</sup>[www.mezzoblue.com/zengarden/resources](http://www.mezzoblue.com/zengarden/resources)

<sup>45</sup>[www.echoecho.com/csslayers.htm](http://www.echoecho.com/csslayers.htm)

## section 4 – javascript programming

section 4 – javascript programming

- lookat – random content / **hit the dot(s)** / move(s) / **slogan(s)** / math(s)
- read – **www.w3schools.com/JS** / development(s)<sup>46</sup> / **terminal(s)**
- explore – lookat(s) / **example(s)** / basic(s) / professional(s) / **eliza(s)**

## javascript element(s)

javascript element(s)

- **function(s)** – function name( args ) ...
- **event(s)** – onload, mouse, key, timer
- **variable(s)** – var x = expression;
- **constructor(s)** – function object() attribute: value;
- **closure(s)** – x = function () ...
- **meta-programming** – x = eval(string)

## accessing the DOM

accessing the DOM

- **object(s)** – window, navigator, screen, history, location
- **accessor(s)** – getElementByID() / getElementsByTagName()
- **attribute(s)** – innerHTML, id, class, href, width, height, ...

## look at (the) example(s)

look at (the) example(s)

- **health** – BMI / **heart rate** / weight watch / BAC
- **effect(s)** – fading(s) / rgb / wheel / banner(s)
- **math** – function(s) / integer(s) / fraction(s) / equation(s) / **challenge(s)**
- **calculator(s)** – area(s) / circle / volume(s) / prime(s) / function(s)
- **game(s)** – memory / face(s) / react / **invader(s)** / poker / **stop the clock**
- **explore** – example(s) / graphic(s) / **jquery**

## learning advanced javascript

learning advanced javascript

- read – ejohn.org/apps/learn / **processing**<sup>47</sup> / **closure(s)**<sup>48</sup>
- explore – wellstyled.com/en / **article(s)**<sup>49</sup> / inheritance<sup>50</sup>

<sup>46</sup>www.infoq.com/articles/js-for-h5

<sup>47</sup>ejohn.org/blog/adv-javascript-and-processingjs

<sup>48</sup>www.jibbering.com/faq/faq\_notes/closures.html

<sup>49</sup>javascript.crockford.com

<sup>50</sup>dean.edwards.name/weblog/2006/03/base

## section 5 – coding principle(s) & practice(s)

section 5 – coding principle(s) & practice(s)

- consult – reference material(s)<sup>51</sup>
- read – about **augmentative authoring**<sup>52</sup>
- explore – style guide(s)<sup>53</sup>

## select (a) framework(s)

select (a) framework(s)

- consider – **jquery.com** / script.aculo.us / www.prototypejs.org / www.dojotoolkit.org
- **explore** – docs.jquery.com / jqueryui.com / plugins.jquery.com

## addon(s) & plugin(s)

addon(s) & plugin(s)

- X3D/VRML<sup>54</sup> – resource(s)
- firefox – addons.mozilla.org/en-US/firefox

## section 6 – graphics with canvas

section 6 – graphics with canvas

- lookat – **particle(s)**<sup>55</sup> [source(s)] / **mix**
- read – basic(s)<sup>56</sup> / **tutorial(s)**<sup>57</sup> / blog(s)
- explore – ff3.5: **video with canvas**: [blog(s)<sup>58</sup>]

## graphic framework(s)

graphic framework(s)

- **raphaeljs.com** – boid(s) / reflection(s) / pie / clock
- **processingjs.org** – link(s) / snake / barchart / intersection(s)
- read – wikipedia / wii SK<sup>59</sup> / SVG?
- explore – www.c3dl.org / addon(s)<sup>60</sup> / **gamejs**<sup>61</sup>
- **lookat** – **beautytip(s)** / raytracer / painter / **pixastic(s)** / selection(s)

<sup>51</sup>htmlhelp.com/links/reference.htm

<sup>52</sup>www.cs.tut.fi/~jkorpela/html/augm.html

<sup>53</sup>htmlhelp.com/links/style.htm

<sup>54</sup>www.web3d.org

<sup>55</sup>elements.com/io/projects/html5/canvas

<sup>56</sup>dev.opera.com/articles/view/html-5-canvas-the-basics

<sup>57</sup>/developer.mozilla.org/en/Canvas\_tutorial

<sup>58</sup>blog.mozbox.org/post/2009/04/12/Firefox-35:-a-new-experiment-with-Canvas-Video

<sup>59</sup>en.wikipedia.org/wiki/Wii\_Opera\_SDK

<sup>60</sup>/people.mozilla.com/~vladimir/canvas3d

<sup>61</sup>tommymind.com/gamejs

## processing (on) canvas

basic(s): processing<sup>62</sup> (on) canvas

- **array** – simple / **object(s)**
- **color** – brightness / **wheel** / square(s) / hue / **gradient(s)** / saturation(s)
- **control** – conditional(s) / **interaction(s)** / operator(s)
- **data** – conversion(s) / (true|false) / scope(s) /
- **form** – bezier / **piechart(s)** / primitive(s) / curve(s) / strip(s) / **vertices**
- **image** – ???
- **input** – easing / **second(s)** / **mouse(s)** / **press** / signal(s)
- **math** – wave(s) / **distance(s)** / random / graphing / **modulo** / noise
- **object(s)** – **composite(s)** / inheritance / constructor(s) / neighbour(s)
- **shape(s)** – scale
- **structure(s)** – coordinate(s) / function(s) / loop(s) / **recursion(s)** / redraw
- **transform(s)** – arm / rotation(s) / **scale** / **flower(s)**
- **typography** – letter(s) / word(s)
- **web** – links(s)

topic(s): processing<sup>63</sup> (on) canvas

- **interaction** – tickle
- **motion** – brownian / curve(s) / puff(s)
- **simulate** – chain(s) / softbody / spring(s)

learning(s): processing<sup>64</sup> (on) canvas

- 1: **setup & shape(s)** – square / outline / ellipse(s) / color(s) / zoog(s)
- 3: **interaction(s)** – square / follow(s) / draw(s) / click(s) / zoog
- 4: **variable(s)** – circle / motion / **square(s)** / ellipse / **dot(s)** / zoog
- 5: **conditional(s)** – mood(s) / **square(s)** / alternate(s) / color(s) / bounce(s)
- 6: **loop(s)** – space(s) / **line(s)** / **gradient(s)** / motion(s)
- 7: **function(s)** – dot / motion(s) / **square(s)** / jiggle(s)
- 8: **class(es)** – move(s) / object(s) / jiggle(s)
- 9: **array(s)** – follow
- 10: **timer(s) & drop(s)** – timer / rain / drop
- 13: **random** – track(s) / **fill(s)** / dot / pendulum / wave(s) / circle(s) / point(s)
- 14: **transform(s)** – zoom(s) / grab(s) / rotation(s) / solar / **angle(s)**
- 15: **pixel(s)** – random / load
- 16: **walk(s)** – grid / **scribble(s)** / path(s)

<sup>62</sup>[processing.org/about/basics.html](http://processing.org/about/basics.html)

<sup>63</sup>[processing.org/learning/topics](http://processing.org/learning/topics)

<sup>64</sup>[www.learningprocessing.com/examples](http://www.learningprocessing.com/examples)

## section 7 – server-side coding

section 7 – server-side coding

- lookat – **inspiration(s)** / resource(s)<sup>65</sup>
- read – **www.w3schools.com/hosting** / portal(s) / wiki(s)<sup>66</sup> / CMS<sup>67</sup>
- explore – wiki(s) / professional(s) / climate-portal.nl

## using php/(my)sql

using php/(my)sql

- lookat – CD / **login(s)**
- read – **www.w3schools.com/php** / **www.w3schools.com/sql**
- explore – basic(s) / service(s) / selection(s) / **graphic(s)** / professional(s)

## developing web services

developing web services

- read – about web service(s)<sup>68</sup> / **www.service-architecture.com** / aws.amazon.com
- explore – webapi(s) / **RIA(s)** / mashup(s)
- consider – **oxygen**<sup>69</sup> / **eXist**<sup>70</sup>

## code & security issues

code & security issues

- lookat – **creative cube(s)** [proxy/server(s)] / **policy**
- read – about security
- explore – **anatomy of (a) web server(s)** / client(s)

## section 8 – rich internet application frameworks

section 8 – rich internet application frameworks

- Adobe Flex – [www.adobe.com/products/flex](http://www.adobe.com/products/flex)
- HTML5 + Ajax – [www.ajaxwith.com/HTML-5-and-Ajax.html](http://www.ajaxwith.com/HTML-5-and-Ajax.html)
- Sun JavaFX – [www.sun.com/software/javafx](http://www.sun.com/software/javafx)
- Microsoft Silverlight – [www.microsoft.com/silverlight](http://www.microsoft.com/silverlight)

<sup>65</sup>[www.cs.vu.nl/~eliens/research/online-mashups.html](http://www.cs.vu.nl/~eliens/research/online-mashups.html)

<sup>66</sup>[www.mediawiki.org](http://www.mediawiki.org)

<sup>67</sup>[www.opensourcecms.com](http://www.opensourcecms.com)

<sup>68</sup>[www.w3.org/DesignIssues/WebServices.html](http://www.w3.org/DesignIssues/WebServices.html)

<sup>69</sup>[wso2.org/library/2733](http://wso2.org/library/2733)

<sup>70</sup>[exist.sourceforge.net](http://exist.sourceforge.net)

## (requirements for) rich media application(s)

(requirements for) rich media application(s)

- integration with data services / connection to media servers
- libraries & components / 2D, 3D effects & drawing API
- skinning & style sheets / multi-modal (media) input

## getting started with flex/as3

getting started with flex/as3

- lookat – **ximpel.net** / example(s)
- **explore** – tutorial(s) / **getting started**

## AJAX/HTML5 development(s)

AJAX/HTML5 development(s)

- canvas, audio & video – documentation(s)<sup>71</sup> / feature(s)<sup>72</sup> / geolocation(s)<sup>73</sup>
- O3D – API<sup>74</sup> / example(s)

## (ahead with) AJAX

(ahead with) AJAX

- lookat – relay(s) / car(s) / **hint(s)**
- explore – **www.w3schools.com/ajax** / tutorial(s)<sup>75</sup> / professional(s)

## (new) wave(s) of web 2.0 (media)

(new) wave(s) of web 2.0 (media)

- flickr – [www.flickr.com/services](http://www.flickr.com/services)
- google – [code.google.com](http://code.google.com)

## section 9 – wrap up(s)

section 9 – wrap up(s)

- **consider** – jetpack(s)<sup>76</sup> / **(y)our skill(s)**<sup>77</sup> & **understanding**
- read – about [webscience.org](http://webscience.org) / **extra(s)** / math education
- **explore** – [www.googlelabs.com](http://www.googlelabs.com) / **dream(s)**

A. Eliëns (24/8/2009)

<sup>71</sup>[/developer.mozilla.org/En/Using\\_audio\\_and\\_video\\_in\\_Firefox](http://developer.mozilla.org/En/Using_audio_and_video_in_Firefox)

<sup>72</sup>[/developer.mozilla.org/En/Firefox\\_3.5\\_for\\_developers](http://developer.mozilla.org/En/Firefox_3.5_for_developers)

<sup>73</sup>[code.google.com/apis/gears/api\\_geolocation.html](http://code.google.com/apis/gears/api_geolocation.html)

<sup>74</sup>[code.google.com/apis/o3d](http://code.google.com/apis/o3d)

<sup>75</sup>[www.xul.fr/en-xml-ajax.html](http://www.xul.fr/en-xml-ajax.html)

<sup>76</sup>[jetpack.mozillalabs.com](http://jetpack.mozillalabs.com)

<sup>77</sup>[blogs.zdnet.com/BTL/?p=16052](http://blogs.zdnet.com/BTL/?p=16052)