



HTML5 and CSS3 on mobile devices



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IMT2551 Mobile Systems Fundamentals



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<http://www.ansatt.hig.no/kjellr/imt2551>



WHERE WE ARE NOW

1	No lectures
2	Course introduction
3	General background on mobile devices and solutions including context awareness
4	Self-study - "Mobile first"
5	Being a professional developer of mobile software (Audun Vaaler)
6	HTML5 and CSS3
7	JavaScript and Javascript frameworks for mobile web/app developers (Jayson)
8	Project 1: Designing and building a mobile webpage/webapp
9	Project 1: Guidance
10	Project 1: Designing and building a mobile webpage/webapp
11	Project 1: Designing and building a mobile webpage/webapp
12	Project 1: Designing and building a mobile webpage/webapp
13	Accessibility and mobile devices
14	Easter holiday
15	Easter holiday
16	Project 2: Mobile accessibility
17	Project 2: Guidance
18	Project 2: Mobile accessibility
19	Project 2: Mobile accessibility
20	Mobile systems and devices in media production 1 (Emil?)
21	-
22	-
23	Week 23 June 8 Exam (written, 3 hours from 09.00-12.00). Room number will be announced in StudWeb.

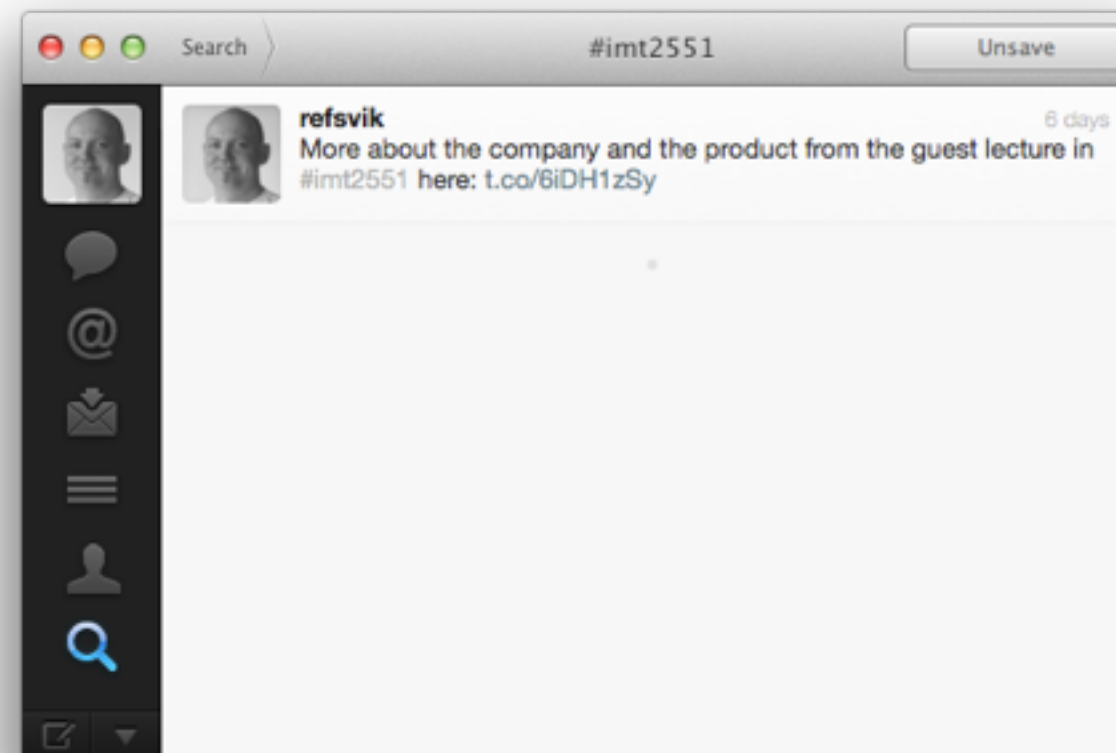
🎯 TODAY'S GOAL

After this lecture and its activities, you should be able to:

- Know the key differences between using open standards and closed dev tools to develop solutions for mobile devices
- Know some of the key differences between earlier web standards and the latest one
-

ACTIVITY IN CLASS

- Attendance is low
- Few questions
- Little interest in mobile devices. I have only lent out two.
- Twitter? Next to no messages. Everyone up on EduRoam?



LAST TIME

- Developer using custom language, IDE and store to sell apps
- In contrast, in many cases developing in one language for all devices and distributing sw for free has great advantages
- The solution today is web standards (HTML5, CSS3 and Javascript[frameworks])
- Can in some instances also be packages as an app and sold through IOS and
- Android app-stores. See book and online for more information

INTRODUCTION

- Knowledge about HTML required at this stage
- You will be asked to develop your personal web site for mobiles later in this course

WEB STANDARDS

- HTML5 (content, structure)
- CSS3 (Design)
- Javascript (Advanced functionality). Next week with Jayson Mackie

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YOUR PROJECT

- Develop site where you present yourself
- Can be created using CMS (blog.hig.no) and tweaked to fit your needs
- ...or using HTML, CSS and Javascript from scratch
- I suggest the latter, so that you have better control over what you are doing
- Prepare tools to start the development
 - Editor for CSS and HTML, including ftp-tools to upload to stud.hig.no
 - Validator engines to validate code and accessibility
 - Mobile browser emulator

HTML5 AND CSS3

- Part of web standards, maintained by W3C
- Latest in a long line of standards on the web
- Is openly documented in contrast to closed formats (e.g. Flash, created by Adobe)
-

HTML 5, KEY MOBILE FEATURES

- Key differences to html4, <http://www.w3.org/TR/html5-diff/>
- Offline support, <http://www.w3.org/TR/offline-webapps/>
- Canvas drawing, http://en.wikipedia.org/wiki/Canvas_element
- Audio and video streaming support, http://en.wikipedia.org/wiki/HTML5_video
- Geolocation API, <http://html5demos.com/geo>
- Advanced forms, http://en.wikipedia.org/wiki/HTML5_in_mobile_devices#Advanced_forms

CSS3

- New in CSS3, <http://www.css3.info/preview/>
- Can do more things that used to happen in Javascript
- That includes drawing menus and transitions between web views
- Also, rounded corners, coloumns, speech, webfonts and other new things

SIGNIFICANCE OF HTML5 AND CSS3 TO MOBILE DEVELOPERS

- Adapted with mobiles in mind (small screens and sensors)
- Mobile first starts to take over from developing two distinct sets of pages/stylesheets

main.css

Project Settings Action

WORKSPACE

- Preview
- HTML 5 template test

PROJECT FILES

- ny webside
 - index2.html
 - index3.html
 - kjellare5.png
 - main.css

```

1  body header {
2      top: 0;
3      right: 0;
4      left: 0;
5      text-align: center;
6      color: #feffff;
7      text-transform: uppercase;
8      font-size: 0.8em;
9      line-height: 1.8em;
10     background-color: #0082ac;
11     padding: 1em;
12     letter-spacing: 0.1em;
13     position: absolute;
14     font-weight: normal;
15     font-style: normal;
16 }
17
18 header a:link {
19     color: white;
20     text-decoration: none;
21     font: normal normal 1em "Helvetica
22         Neue", Arial, Helvetica, Geneva, sans-
23         serif;
24     letter-spacing: 0.2em;
25     border-bottom: 1px dotted white;
26 }
27
28 body {
29     background-color: #f5f5f5;
30     float: none;
31     clear: both;
32     padding: 1em;
33     font-family: Palatino, Georgia, "Times
34         New Roman", Times, serif;
35     font-size: 1em;
36     margin-top: 2em;
37 }
38
39 a:link {
40     text-decoration: none;
41     position: relative;
42     color: #0082ac;
43     border-bottom: 1px dotted #7f0000;
44     line-height: 1.2em;
45 }
46
47 a:visited {

```

NAVIGATOR

- nav a:link
- nav a:visited
- section
- h1
- h2
- h3
- h4
- time
- p
- img
- figure
- figurecaption

Text Decoration Layout

Color:

Size:

Style: **B** **B + i** *i* None

Decoration: aa ~~aa~~ aa None

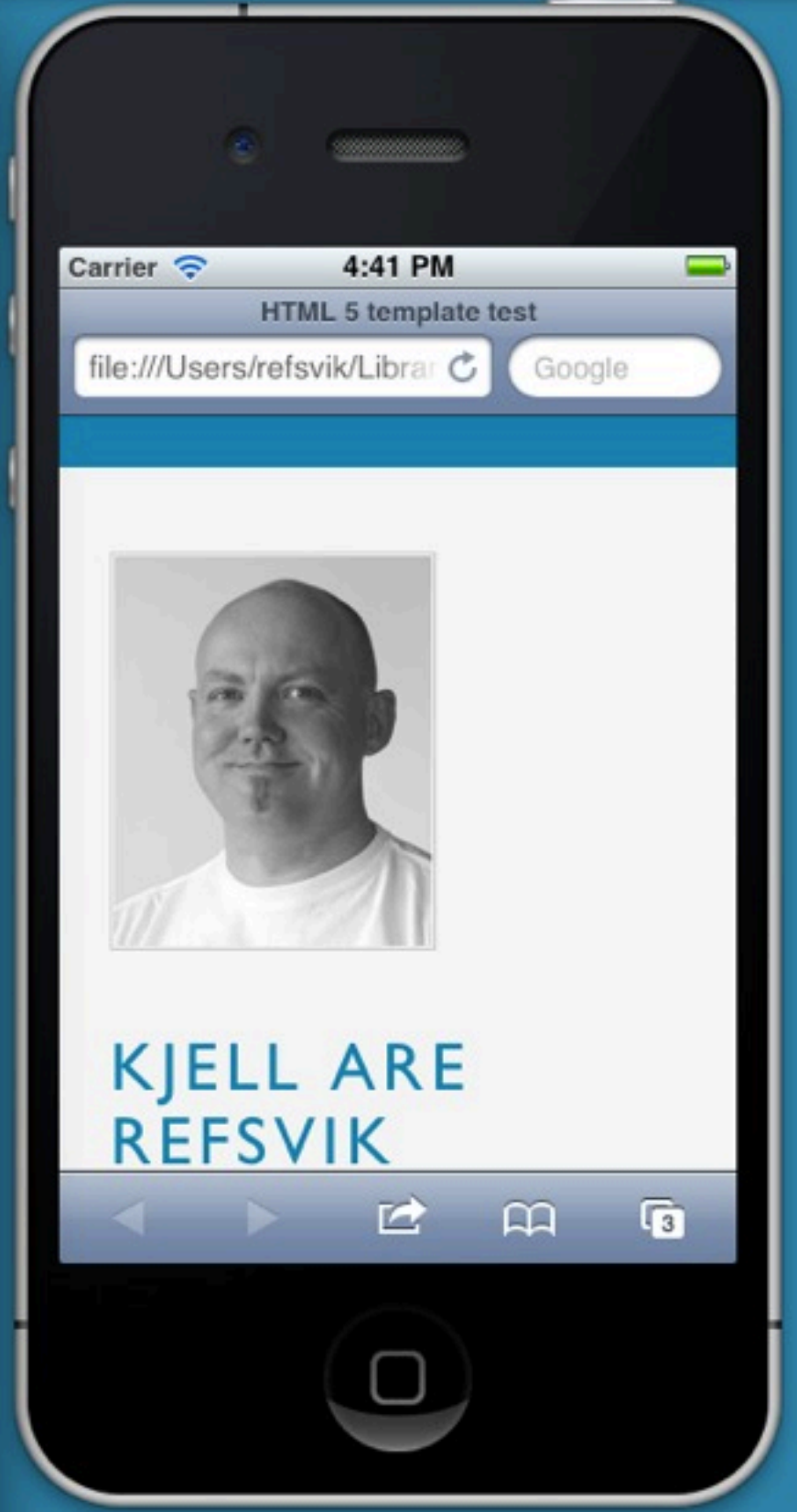
Variant: SMALL CAPS Normal

Capitalize: Abc ABC abc None

Font Family:

Alignment:

White space:





ASSIGNMENTS

- Suggested work
 - Experiment with creating web pages for mobile devices using a text editor
 - Use validation services to ensure that pages adhere to standards
 - Create a page that adapts to a small screen



RESOURCES

- HTML5 validator, <http://validator.w3.org/>
- CSS3 validator, <http://jigsaw.w3.org/css-validator/>
- Accessibility,
 - <http://achecker.ca/checker/index.php>
 - <http://www.smartlabsoftware.com/wai-validator.htm>



RESOURCES

- http://www.mediawiki.org/wiki/Mobile_browser_testing
- [Help each other out with testing sites on mobile browsers](#)



RESOURCES

- <http://www.alistapart.com/articles/cssatten>
- http://en.wikipedia.org/wiki/HTML5_in_mobile_devices
- <http://www.mobilehtml5.com/>
- http://en.wikipedia.org/wiki/Cascading_Style_Sheets#CSS3
- <http://notesofgenius.com/new-css3/>
- <http://diveintohtml5.org/>
- <http://html5demos.com/>



RESOURCES

- <http://nrkbeta.no/2010/01/22/litt-om-html5-og-kva-det-betyr-for-nrk/>
- <http://www.youtube.com/html5>
- <http://www.html5rocks.com/>
- <http://html5.org/>
- http://www.youtube.com/results?search_query=html5&aq=f
- <http://www.css3.info/preview/>
- <http://www.w3.org/Style/CSS/current-work>
- http://www.youtube.com/results?search_query=css3+mobile&aq=f



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