

Aalto University
School of Science
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Kimmo Puputti

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Master's Thesis
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Supervisor: Professor Petri Vuorimaa, Aalto University
Instructor: Risto Sarvas D.Sc.(Tech.)

Aalto University
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ABSTRACT OF
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Kimmo Puputti

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0.1 Thesis Git repository info

Git HEAD:

```
commit 90a4f154c693e53792354005572aa0899b4e91b8
Author: Kimmo Puputti <kpuputti@gmail.com>
Date: Thu Jan 5 15:00:18 2012 +0200
```

Add more sections for outline.

Repository status:

```
# On branch master
# Your branch is ahead of 'origin/master' by 3 commits.
#
# Changes not staged for commit:
#   (use "git add/rm <file>..." to update what will be committed)
#   (use "git checkout -- <file>..." to discard changes in working directory)
#
# modified:   gitinfo.tex
# deleted:    thesis.pdf
#
no changes added to commit (use "git add" and/or "git commit -a")
```


Chapter 1

Introduction: Smartphone Market and the Need for Cross-Platform Support

1.1 Smartphone Landscape

1.2 HTML5

1.2.1 History

1.2.2 Markup

1.2.3 CSS3

1.2.4 JavaScript APIs

1.2.5 Related APIs

1.3 Modern Mobile Web Application Architecture

1.3.1 Single-Page applications

1.3.1.1 JavaScript MVC Libraries

1.3.2 Responsive Design

1.3.3 Progressive Enhancement

1.3.4 UI Libraries

1.3.4.1 jQuery Mobile

1.3.4.2 jQTouch

1.3.4.3 Sencha Touch

1.3.5 Hybrid Applications

Chapter 2

Research Question: HTML5 - Hype versus Realities?

Chapter 3

Methods: Example Application and Library

3.1 Qt Developer Days 2011 Conference Schedule Application

3.2 JSONCache JavaScript Library

Chapter 4

Results: What Was Good and Where Were the Compromises

4.1 Targeting Different Platforms

4.1.1 Device Detection

4.1.2 Feature Detection

4.2 Targeting Different Screens

4.3 Handling Mobile Networks

4.3.1 Minimizing Data Transfer

4.3.2 Caching

4.3.3 Preloading

4.3.4 Offline Support

4.3.5 Handling Interruptions

4.4 Graphics and Animations

4.5 Performance Analysis

4.5.1 YSlow

4.5.2 PageSpeed

Chapter 5

Discussion: Bright Future Ahead for HTML5

Chapter 6

L^AT_EXtest

6.1 Citing

- Berners-Lee [1]
- Mikkonen & Taivalsaari [4]
- Taivalsaari & Mikkonen [7]
- Pilgrim [5]
- Crockford [2]
- Souders [6]
- Garrett [3]
- Zakas [8]

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