# https://encrypted-tbn3.google.com/images?q=tbn:ANd9GcTLAZpQzmzAPnXtyNCq1onsRE4y0bvoWlMvd3YA8Lt715oLXEJxWAIT 5443 Web Technologies Study Guide **Module 11: Mobile Web**

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## Overview and learning outcomes

Mobile computing has also impacted the web site design and application development. It has impacted user interface design principles and practices, as well as web application architectures. There are two main areas involved in mobile web development. One is about responsive website design, and the other is mobile application development based on web technologies.

In this module, let’s have a general overview the mobile web world. We will:

1. Compare basic development options of mobile applications: native app, mobile web, hybrid
2. Explain key differences of the mobile web environment compared to the desktop web.
3. Describe the ways web technologies are used for mobile web site and web app development.
4. Compare basic delivery options of mobile website: one web, adaptive, mobile version site.
5. Discuss the fundamental principles and practices at the high level.
6. Describe tools and methods to test mobile friendliness of web pages.

This module is related to course level learning outcomes 4 and 5.

## Task list

1. Complete the core readings listed in learning materials. Use the questions in “Review and Research” section to guide your reading.
2. Use the lecture notes as a reading and learning guide; follow the resources presented in the notes for further information and additional learning.
3. Review and Research (optional; please discuss them in the discussion board if you want to):
   1. We mentioned the differences of mobile web like screen size and interaction methods, and their impacts on user experience. Find one live real-world website example to illustrate the difficulties. Please read earlier replies and avoid repeating, unless you have something to add.
   2. What are the choices of delivering mobile version web sites and applications? What is ONE Web? How responsive design is different from adaptive web (dynamic serving)?

## Learning Materials

1. Core readings
   1. Mobile web differences: <https://www.paradoxlabs.com/blog/mobile-vs-desktop-10-key-differences/>
   2. Mobile development options
      1. Mobile web app: <https://www.scnsoft.com/blog/mobile-web-app-types>
      2. Developing Mobile Web Applications: When, Why, and How <https://www.toptal.com/android/developing-mobile-web-apps-when-why-and-how>
   3. ONE web (responsive), adaptive, and separate mobile site (Google describes the three techniques): <https://www.thinkwithgoogle.com/marketing-resources/experience-design/building-websites-multi-screen-consumer/>
2. Lecture notes: mobile web overview.pptx
3. Mobile web lab (no required submission; please view the lab guide).
4. Additional resources:
   1. Some history: <http://www.phonearena.com/news/Evolution-of-mobile-web-browsing_id9059>
   2. <http://bradfrost.com/blog/post/the-many-faces-of-adaptive-design/>
   3. <https://en.wikipedia.org/wiki/Mobile_Web>
   4. <https://www.wired.com/2013/05/the-two-flavors-of-a-one-web-approach-responsive-vs-adaptive/>
   5. <https://developers.google.com/search/mobile-sites/>
   6. One web: <http://adactio.com/journal/1716/>
   7. <https://developer.mozilla.org/en-US/docs/Web/Guide/Mobile>
   8. Mobile site design for performance: <https://queue.acm.org/detail.cfm?id=2441756>