

Course : 0553T / Multimedia System
Year : 2015

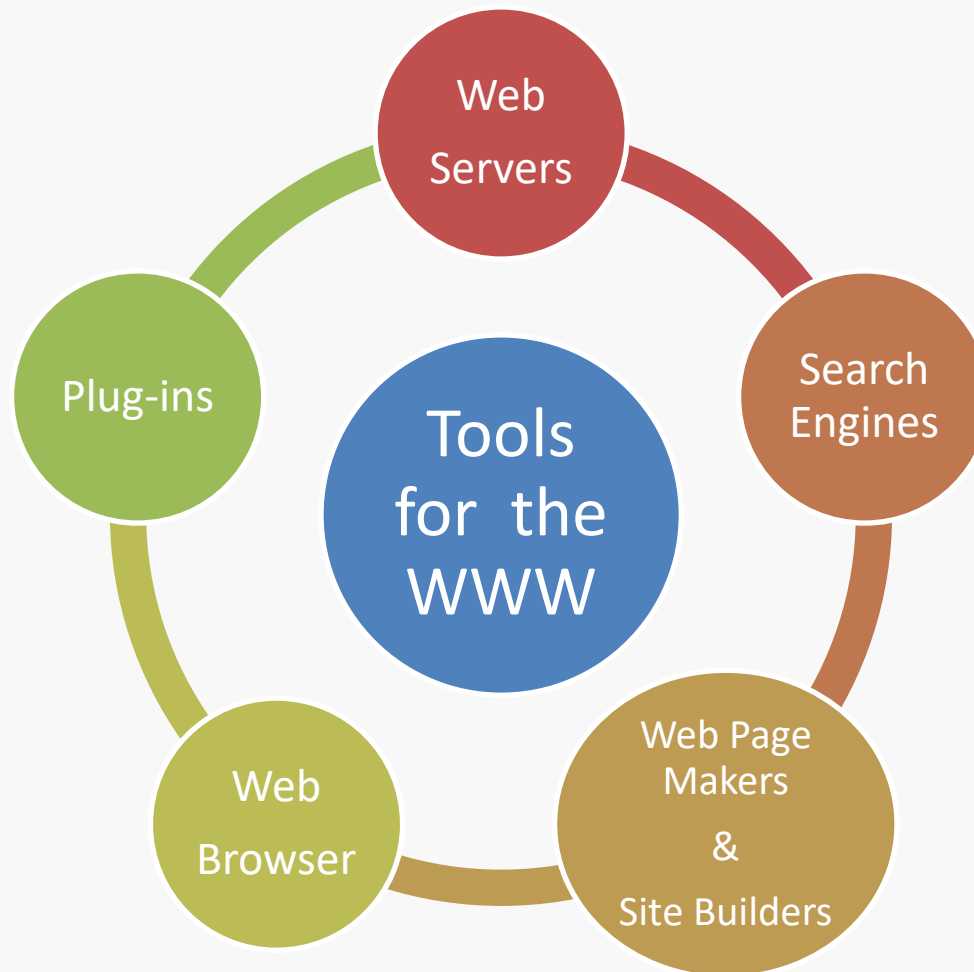
MULTIMEDIA ADVANCED

Session 12

OUTLINE

- Multimedia on the WEB
- Mobile Multimedia

Multimedia on the WEB



Multimedia on the WEB

- Developing for the Web :
 - Text for the Web

Times Roman

- For the proportional serif font

Verdana

- Proportional sans serif

Courier

- The monospaced font

Multimedia on the WEB

- Images for the Web
 - GIF
 - PNG
 - JPEG
 - SVG
- For the web, line art is often better saved in GIF, PNG, or SVG than in JPEG.
- Better using common format on web

Multimedia on the WEB

- Video format on web(common format is better)
 - **.fla, .flv, .swf**(Flash)
 - **.mpg, mpeg**(MPEG-1)
 - **.asf** (Advanced Streaming Format)
.wmv (Windows Media Video)
 - **.mov** (QuickTime)
 - **.avi** (Audio/Visual Interleaved)
 - **.avi DivX**
 - **.rm** (Real Media)
- For some reason, small size better than resolution

Multimedia on the WEB

- Sound for the Web
 - Most browsers allow embedding of sounds into documents using the **<audio>** tag.
 - Inside the tag :
 - Autoplay attribute
 - Start the audio playing as soon as it is ready
 - Controls attribute
 - A play/pause control and other controls will be displayed
 - Preload attribute
 - The audio will load when the page does and be ready to run

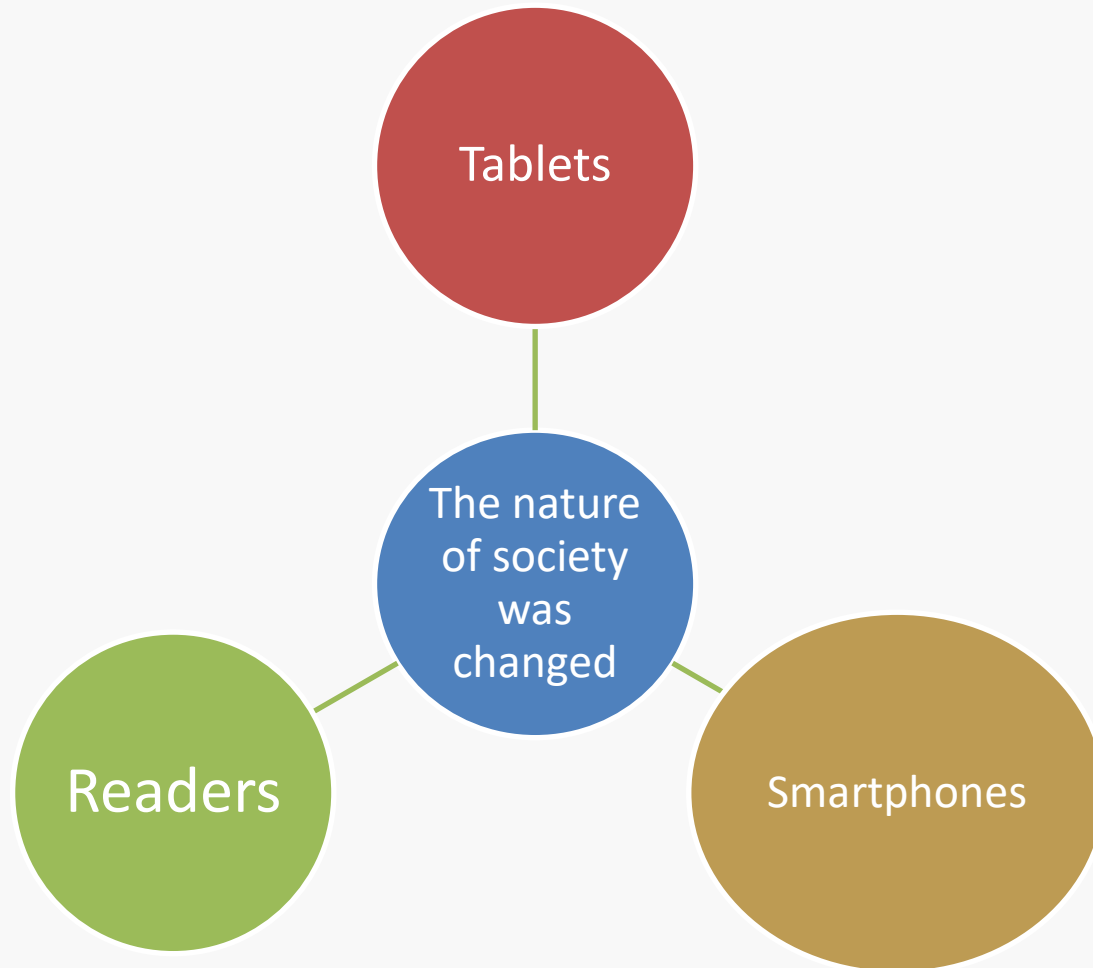
Multimedia on the WEB

- Animation for the Web
 - HTML makes no provision for the animation
 - Use JavaScript with XML features combined into **Asynchronous JavaScript and XML (AJAX)** for powerful interactive applications
 - **Adobe Flash Player** plug-in for browsers offers animation and interaction.
 - **Canvas** in HTML5 useful for creating interactive diagrams.
 - Animated GIF (**GIF89**) can be used to make simple cell animations

Multimedia on the WEB

- Video for the Web
 - For standard method , HTML5 provides a `<video>` tag.
 - Plug-ins and Player :
 - Shockwave -> Macromedia
 - LiveCode
 - The QuickTime

Mobile Multimedia



Mobile Multimedia

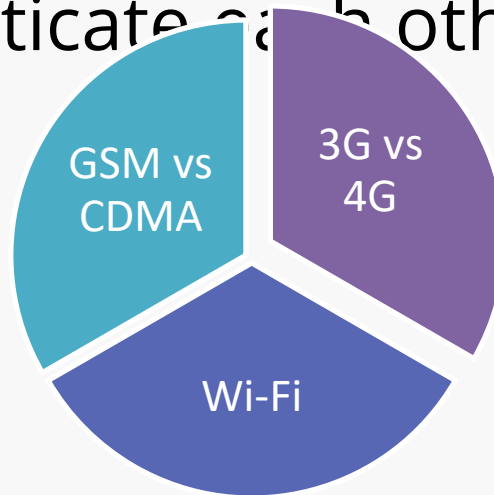
- Mobile Hardware
 - Becoming small
 - Enables multi-touch gestures like pinches , swipes , and tap
- The market

Vendor	Percent
Samsung	25.7
Nokia	13.8
Apple	6.7
LG Electronics	4.0
ZTE	3.0
Huawei	3.0

Vendor	Percent
Lenovo	2.9
TCL Communication	4.0
Sony Mobile Communication	2.1
Yulong	1.9

Mobile Multimedia

- Connection
 - Begins with a “**handshake**” (a set of complicated but standardized protocols that allows the device and the radio to which it is connecting to identify and authenticate each other.



Mobile Multimedia

- Mobile Operating System
 - iOS vs Android

Codename(Version), API Level	Distribution, February 2014	Release Date
Froyo(2.2), 8	1.3%	May,2010
Gingerbread (2.3.3-2.3.7)	20%	December, 2010
Honeycomb (3.2), 13 (tablet only)	0.1%	February,2011
Ice Cream Sandwich (4.0.3-4.0.4),15	16.1%	October ,2011
JellyBean (4.10- 4.3) , 16-18	60.7 %	July, 2012

API, Distribution, and Release for Android Versions

Mobile Multimedia

- Version , Distribution, and Release Date for

Version	Highest Version for	Distribution, February 2014	Release Date
3.1.3	iPhone 1 st iPod 1 st	4 %	February,2010
4.2.1	iPhone 3G, iPod touch (2 nd)		November,2010
5.1.1	iPod touch (3 rd) iPad (1 st)		May, 2012
6.1.3	iPhone 3GS	22 %	March, 2013
6.1.5	iPod touch (4 th)		November, 2013
7.0.4	iPhone 4,iPhone 4S, iPhone 5, iPhone 5C, iPhone 5S, iPod touch, iPad2, ipad 3 rd , iPad 4 th , iPad Air, iPad mini 1 st and 2 nd	74%	November,2013
7.0.5	iPhone 5C and iPhone 5S (China & selected European/ Asia Pacific		January,2014

Mobile Multimedia

- Programming Mobile Apps
 - Tools :
 - Objective C -> iOS
 - Java -> Android
 - HTML5, CSS, JavaScript -> hybrid apps
 - Methods :
 - Responsive Web Design (RWD)

Supporting Materials

- <http://calafia.com/classroom/multi.htm>
- https://www.khronos.org/assets/uploads/developers/library/whitepaper_multimedia_mobile_phones.pdf

Exercise

- Determined which graphic formats are best suited
- Explain the kind of multimedia application that can be developed in mobile!