Designing Mobile Browsing

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Why mobile?

- it’s the new normal
- uncharted territory, interaction-wise
- we are all mobile sometimes

The same but different

- Congratulations - it’s the future!
- mobile browsing is nearly as powerful as desktop browsing
- time to focus again on how it’s different
  - characteristics of the devices
  - characteristics of mobile users

Devices Characteristics

- Small screens
- Difficult to type
- Direct manipulation - touchscreens
- Many abilities - rich devices
- Constant but interruptible connection

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Changing foundations

$$T = a + b \log_2 \left(1 + \frac{D}{W}\right)$$

- Fitts' law still applies in terms of implications for proximity and size of controls

- for touchscreens, the implications about the value of the screen edges and corners don't apply!

- surprise!

Sizing for fingers

Screen real estate by device									
	Screen size	**Resolution**	**Aspect ratio**	**Screen dimensions**	**Pixels/Inch**	**Size of 1/4" button (px)**	**Size of 1/3" button (px)**	**Size of 0.4" button (px)**	**Size of 1/2" button (px)**
N800	4.1"	800x480	5:3	~3.5" x 2.1"	225	56	75	90	112
MID	4.8"	800x480	5:3	~4.1" x 2.46"	195	48	65	78	97
MID	5"	800x480	5:3	~4.28" x 2.57"	187	46	62	74	92
Q1	7"	1024x600	5.12:3	~6.0" x 3.54"	170	42	56	68	85
	8.9"	1280x768	5:3	~7.63" x 4.58"	168	42	56	67	84
iPhone	3.5"	320x480	2:3	~1.94" x 2.91"	160	40	53	64	80
Pad 3	7"	800x480	5:3	~6" x 3.5"	133	33	44	53	66
15.4" Laptop	15.4"	1440x900	8:5	13" x 9.2"	110	27	36	44	55
15" LCD	15"	1024x768	4:3	12" x 9"	85	21	28	34	42

https://help.ubuntu.com/community/UMEGuide/DesigningForFingerUIs

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Mobile user is mobile

- Mobile
- Interruptible and distractible
- Available
- Sociable
- Contextual
- Identifiable

Taxonomy from Barbara Ballard

Mobile

- On the move - already navigating in the real world
- not much with them, otherwise
- motor precision not at peak

Interruptible and distractible

- The outside world will take priority - user won’t necessarily be able to choose the best time for software

- Fewer social cues that they’re busy

Available

- People take their phones/devices with them everywhere
- Clay Shirky: coordination vs. planning
- It’s not always a good time

Sociable

- People who need people - luckiest people in the world
- Engaged in the world of people, as they should be
- online sociability vs. sociability in person

Contextual

- more affected by context -- environment affects how a device is used
- location
- time
- weather
- schedule

Identifiable

- users are connected to and associated with their devices - phone numbers
- Devices tend to be personal
- Sharing, at least in North America and Europe, is rare

Design Goals for a mobile Firefox

- Maximize screen space dedicated to content
- Minimize typing wherever possible
- Give primacy of interaction to a finger-oriented touchscreen
  - accommodate finger size
  - increase the physicality of the interface
- Support the quick lookup scenario

Future themes?

- Make it easier to bridge mobile and desktop
- Make it simple to share things with your friends
- Make it simpler to authenticate, given than the phone is a personal device
- Better support the "entertain me / check-in-with-updates" use-case
- Be smarter about online/offline and wifi/cell data/ roaming
- Help people cope with always being connected

Thank you!

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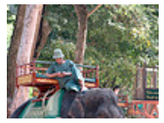
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