

*turning knowledge into practice*

# Best Practices for Developing Smart Phone Based Web Surveys and Systems

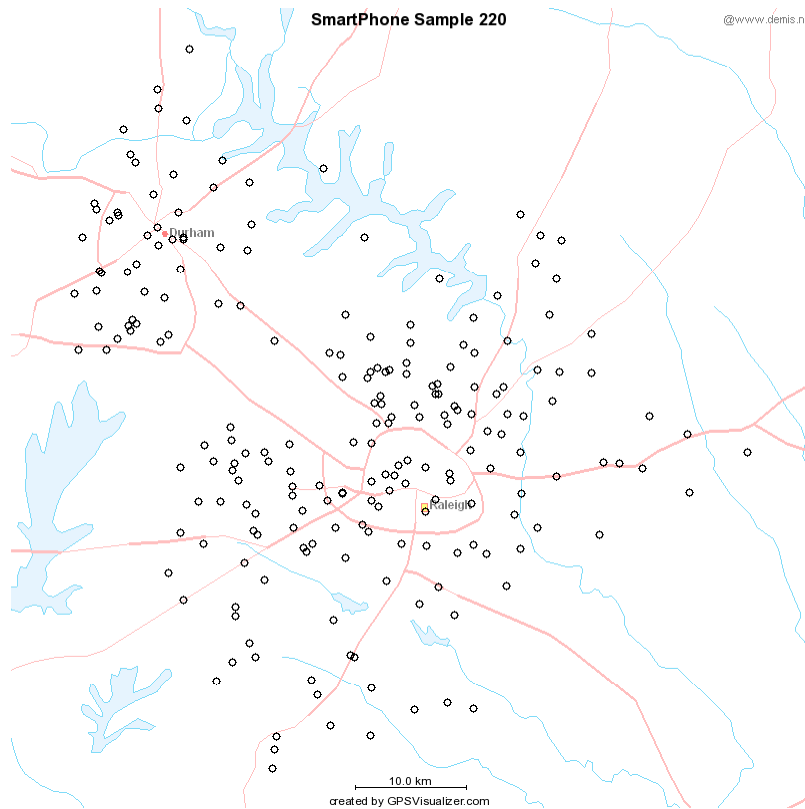
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# Why Mobile Web Survey?

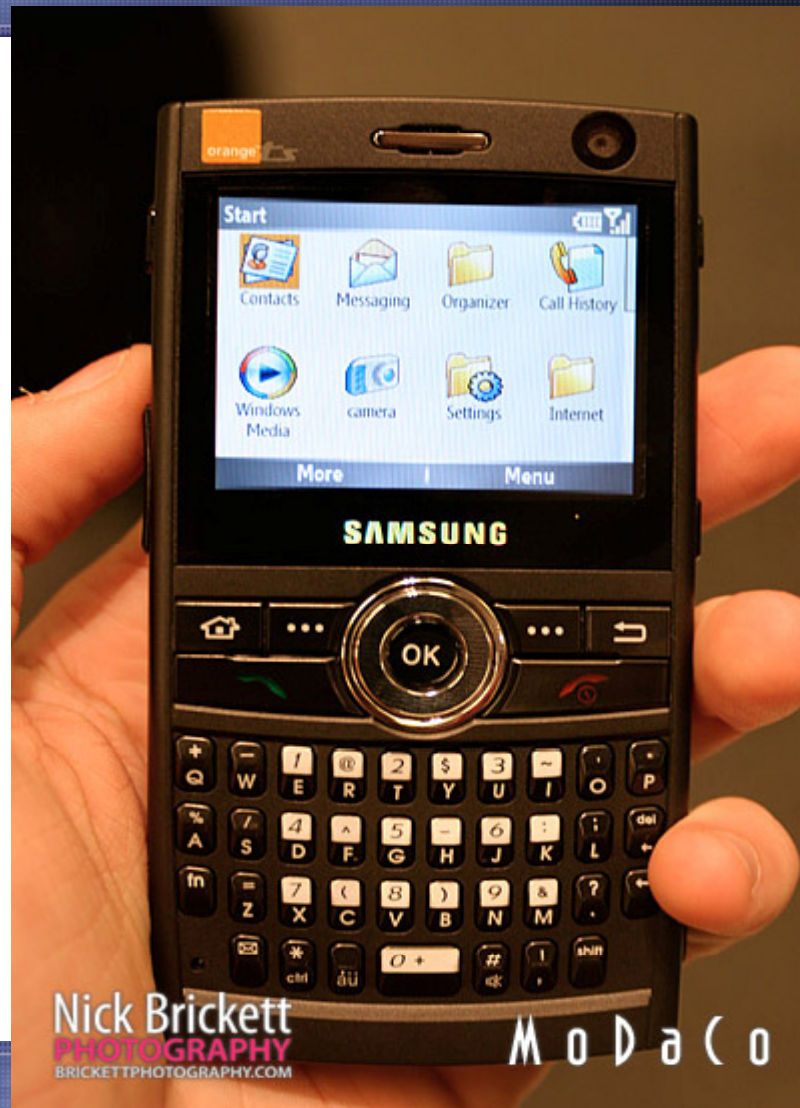
- 1. Worldwide, over 3 billion mobile phone subscriptions at the end of 2007**
- 2. 1 in 5 US adult don't have landline service, almost 90% US adults have a cell phone.**
- 3. Mobile phone technology is becoming more powerful every day, speed will be faster and data plans will be cheaper.**
- 4. Mobile survey is convenient, people can do it anywhere anytime.**

# Wireless Panel



- RTP-based pilot study, 220 randomly selected, 92 enrolled in the panel.
- Blackjack devices, free voice and data plan.
- Interviewers recruited and trained
- Data collection: Jun – November, weekly survey, 21 surveys total.

# Blackjack



# Mobile Web Survey vs. Web Survey

- **Mostly the same.** User experience of the web can be very poor if the website is not designed for the mobile device.

## **Specific to Mobile Survey:**

- Input: keyboard, touch screen, no mouse
- Presentation: Small Screen Size
- Bandwidth and Cost
- Personal, portable, location awareness, one-handed operation, always on, SMS

# User Input

- Security vs. Convenience : No Masked Text Box is recommended
- Provide pre-selected default values where possible.
- Limit free text entry.
- Free text entry results from our study: *10% to 50% responses rate with a pretty low spelling error.*

# Small Screen Size

- Minimize the number of clutters on a page
- No frames: Do not use frames. Not supported, or cause lots of problems
- Use clear and simple language
- Scrolling: Limit scrolling to one direction only
- Pop ups: Do not cause pop-ups or other windows to appear and do not change the current window without informing the user.

# Small Screen Size

- No Auto Refresh
- Be careful with use of color
- Non-text alternatives: Provide a text equivalent for every non-text element.
- Cookies: Do not rely on cookies being available.

# Limited Multimedia Support

- Supports images: make sure the size of image fit on one screen without scrolling
- Most browsers don't support streaming video and audio yet. IE Mobile will support it in 3<sup>rd</sup> of this year, Skyfire does support it but it is not publicly available; Opera maybe?

# Validation

- Limit client side scripting and embedded objects. Not all device support it. Scripting increases power consumption and so decreases battery life.
- No client side validation, perform server side validation

# Other Limitations

- Cannot control the physical device; Cannot store and retrieve data locally; Cannot switch from numeric to text input mode.
- Cannot use smart phone built in features such as calendar without installing 3<sup>rd</sup> party tools. But we can send instant SMS.
- Device power limitation, stand-by mode, session timeout.
- Blank screen issue

# Mobile Web Testing

- Carry out testing on actual devices as well as emulators.
- Develop Field Interview Screener application as a mobile web based application on the same device so that FI can be trained and then train the users

# What about iPhone?

- Different device, different browsers
- Embed meta tags in HTML to size appropriately for iPhone.
  - `<meta name="viewport" content="width = 320" />`
  - `<meta name="viewport" content="initial-scale=1, user-scalable=no" />`

# Sample Screenshot

smartphone.rti.org/Default.aspx

3. What is your age, in years?

---

<< Back   Continue >>   Breakoff

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# Sample Screenshot

smartphone.rti.org/Default.aspx

5. Which one of the following groups do you identify with the most? Would you say...

White,

African American,

Asian, Hawaiian/Pacific Islander,

Native American/Alaskan native or

Some other race?

DON'T KNOW

REFUSED

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# Thank you!

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