Cheap & Cheerful - Multimodal UX Design in the Agile Era

Ann Thyme-Gobbel, D+M Group (Denon Marantz)
ann.thymegobbel@dmh-global.com
The Issue: Sprinting Through Your Design

- You don’t have
  - Time
  - Money

- You want
  - to Beta-Test a Bigger Test
  - Broad User Access
  - Specific Target User Access
  - to Prioritize Scope
  - to Form Hypotheses from User Opinions & Ideas
  - to Verify Assumptions
  - Data to Support a Point
  - to Understand Users’ Mental Models
  - Verbatim examples of Users’ Requests and Wording Choices
The Solution: Many Paths to Data

1. One is Company... When You’re the Sample
   - Walking in others’ shoes

2. With a Little Help from your Friends
   - Social media
   - VIPs

3. Strangers in Stranger Lands
   - Quick A/B testing
   - Amazon Mechanical Turk
22otters Mobile App

Platform for interactive multi-modal communication with Patients and Caregivers for acute and chronic medical conditions and procedures

Care calendar, step-by-step training/coaching, Question Answering system

Question Answer system
- Foods, activities, FAQ, medication (“Can I take _?”)
- Medication list (“What medications are you taking?”)
- Disambiguation, Error handling backoff, Navigation

Answer depends on
- Domain, Provider, Procedure, Current time relative to exam

Cheap & Cheerful – Agile UX
Ann Thyme-Gobbel, AVIOS Conversational Interaction 2017
1. One is Company... When You are your Own Sample

- The Usual
  - Background research, Heuristic evaluations

- The Unusual
  1. Not-so-cheerful: Colonoscopy
  2. You’re in Trouble: Urine Collection

- Pros & Cons
  - Base for building rapport & empathy; Understand the issue; Very fast & cheap
  - Sample size; Not a naive subject

Experience can
- impact design focus
- uncover new info
2. With a Little Help from your Friends

- **The Typical**
  - Speech data collection from coworkers, friends & family
  - Low-Fi Woz; Hallway UT

- **The Less Typical**
  1. Quick: Putting social media to good use
     - Interpretation of wording, A/B, experiences
     - Fine-tune questions before larger test
  2. In-depth: OTTERS - A group of target users
     - 1-on-1 interviews, use app in context, longitudinal

- **Pros & Cons**
  - Test accessibility, functional prototype, affordance, expectancy
    - Easy access, cheap, fast, follow-up is easy, people love to help
    - Limited population in size, experience, context

---

Build your set
- of near-target users
- who respond well

Cheap & Cheerful – Agile UX
Ann Thyme-Gobbel, AVIOS Conversational Interaction 2017
3. Strangers in Stranger Lands

- The Standard
  - In-app survey, focus groups; user phone interviews

- The Non-Standard
  1. Quickies: You want an A/B test with that coffee?
     - Use Albums on your iPhone
  2. Speech collection on The Washington Mall
  3. Amazon Mechanical Turk

- Pros & Cons
  - Good for targeted data collection & testing expectancy, affordance
    - Naive subjects, broader scope
    - No follow-up

✓ Wider population = new info
✓ Phone is a great tool
Look Out Honey ‘cause I’m Using Technology: Amazon Mechanical Turk

- What is it?
- How does it work?
- What does it cost?
- Is it reliable?
  - Intra- vs. Inter-subject
  - Parallel comparison
Amazon Mechanical Turk: Many Uses

- Memorability and comprehension
  - Finding a company name

- Data collection
  - Describe most recent meal
  - “How would you say...”

- Opinions & Preferences & Attitudes
  - Recorded speech vs. TTS: What emotion is conveyed
  - Avatar vs. picture vs. text-only
  - “Which do you prefer – and why”: Graphics & color preferences
  - “What do you think of...”

- Interpretation of a phrase
- “What functionality ...”
# Amazon Mechanical Turk: Pros & Cons

**Good for...**

- Reaching a *large broad population* quickly & cheaply
- Collecting data to form *initial hypotheses* or *prioritize* functionality
- Getting feedback on something that doesn’t need (much) context
- Collecting data about *concrete experiences*
- Testing comprehension & performance of concrete tasks & wording
- Some opinion (if scope is well defined)

**Less good for...**

- Responses that depend on particular experiences
- Demographics that are under-represented
- Insights on wishes or abstract ideas
- Getting follow-up clarification
- Longitudinal effects
Final Thoughts

- “Back Off Man – I’m a Scientist”: A tool in the wrong hands...
- Never Throw Away Data
  - Gather it, use it, and remember its origin
- Self → Friends → Strangers → Controlled Recruited Testing
- The UX Design Brief: Sharing Findings in a Digestible Format
Cheap & Cheerful - Multimodal UX Design in the Agile Era

Ann Thyme-Gobbel, D+M Group (Denon Marantz)
ann.thymegobbel@dmh-global.com