# **Emerging Usability Evaluation Tools and Techniques in Web-Based Health Communication**

## Large-Scale, Online Usability Testing: Usability Tools and Techniques

## What:

Online, tool-based approaches to usability testing that allow:

- Almost unlimited participation and segmentation
- Almost instantaneous analysis and reporting



## Web

### Useful for:

- Geographic diversity
- Fast results
- Citizen-engagement / Customer-engagement

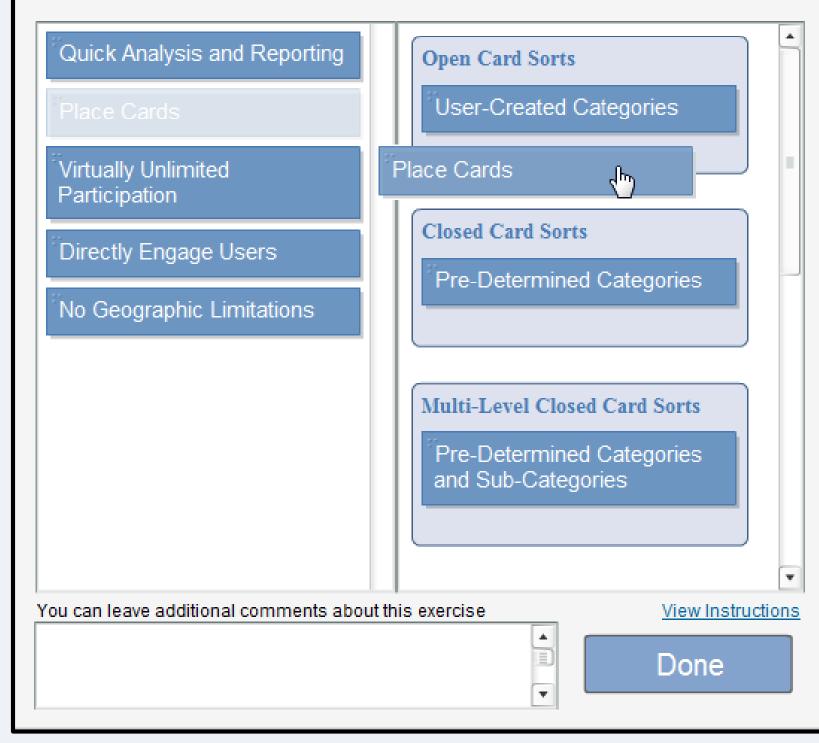
## Challenges:

- No direct participant communication or observation
- Recruiting strategy and screener development
- Data collection and analysis (especially qualitative data)

# Card Sorting

## What:

- Users place 'cards' into 'buckets'
- Two basic approaches:
- Open card sorts
- Closed card sorts



Sample of a closed card sort (using Optimal Sort)

### **Useful for:**

- Identifying organization approaches
- Validating or refining existing information architecture (IA)
- Learning user's expectations and understanding

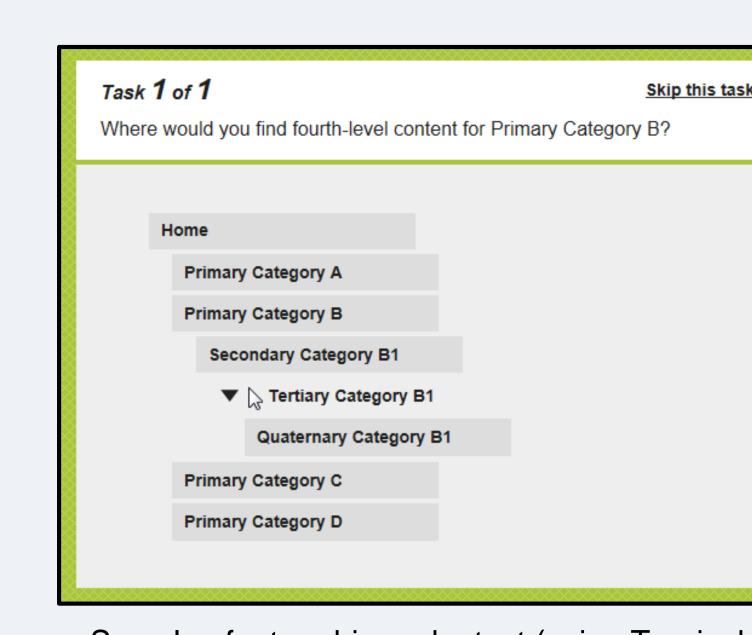
## Challenges:

- Selecting cards representing content's depth and breadth
- Testing/understanding outliers

# Tree Hierarchy Testing

## What:

- Validating multi-level IAs:
- Users locate content in a tree (folder) structure
- Two basic approaches:
- Static
- Interactive
- aka: Reverse Card Sorting



Sample of a tree hierarchy test (using Treejack)

### **Useful for:**

- Evaluating multi-level IA in a single sort
- Refining content strategy
- Identifying cross-linking and related content strategy

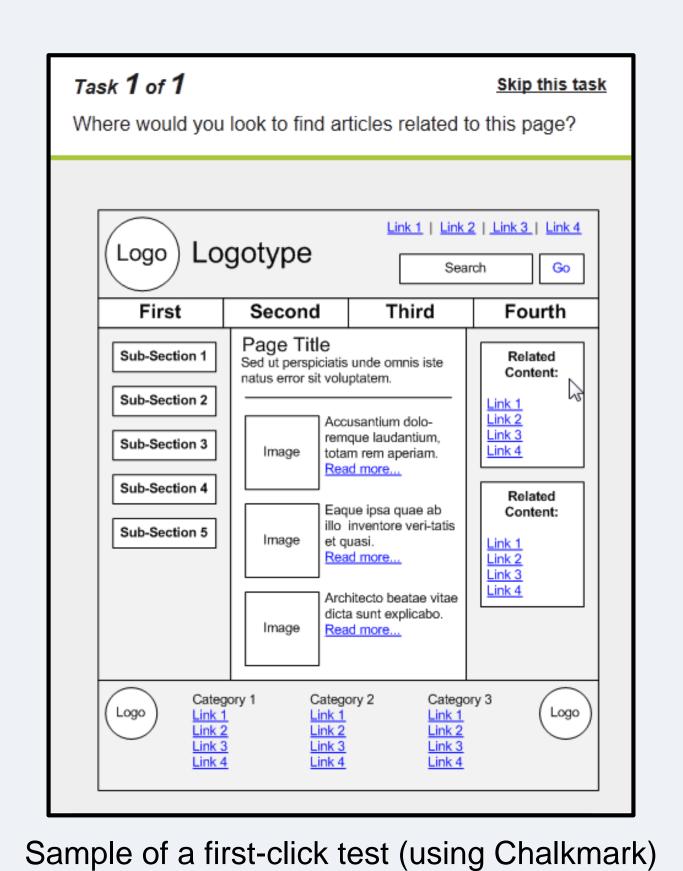
## Challenges:

- Finding content that tests the IA's depth and breadth
- IA gaps and logical alternative content locations

# First-Click Testing

### What:

- Testing user's first instincts for performing specific tasks:
- May also track click paths, task completion, and success rates
- Evaluating areas that receive too much or too little attention



- Benchmarking traffic patterns
- Evaluating design/label change
- When no time for formal moderated usability testing

## Challenges:

**Useful for:** 

- Careful scenario identification
- Begin with homepage then moving through the IA

# Testing Mobile Usability

### What:

- Tools/techniques that:
- Capture user interactions while using mobile devices
- Allow users to share screens and/or facial expressions



Psychster Usability Palette (image: blogs.psychsterdata.com and common mobile devices (image: networkintellect.com)

## Useful for:

- Understanding how different users/devices interact with sites
- Determining if a responsive or mobile site is wanted/needed
- Evaluating and improving responsive and mobile sites

## Challenges:

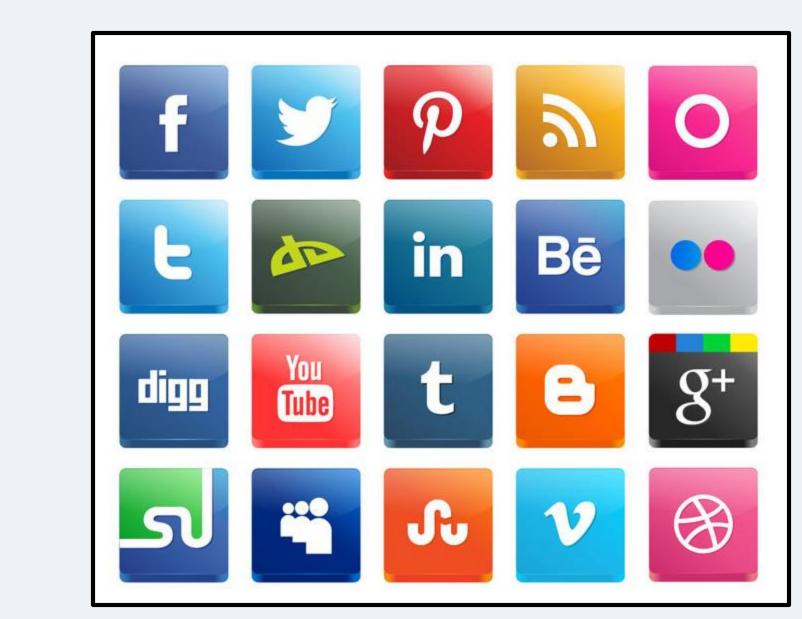
Testing best performed in person; remote testing poses software, hardware, and technical challenges

# Social Media Recruiting

### What:

Recruiting through:

- Blogs/Microblogs
- Social networks
- Content and collaboration communities (e.g. YouTube)
- Zero- or low-cost alternative to recruiting services



Sampling of popular social media tools/sites

# Useful for:

- Leveraging existing social media presence/community
- When there is limited time or budget for formal recruiting

## Challenges:

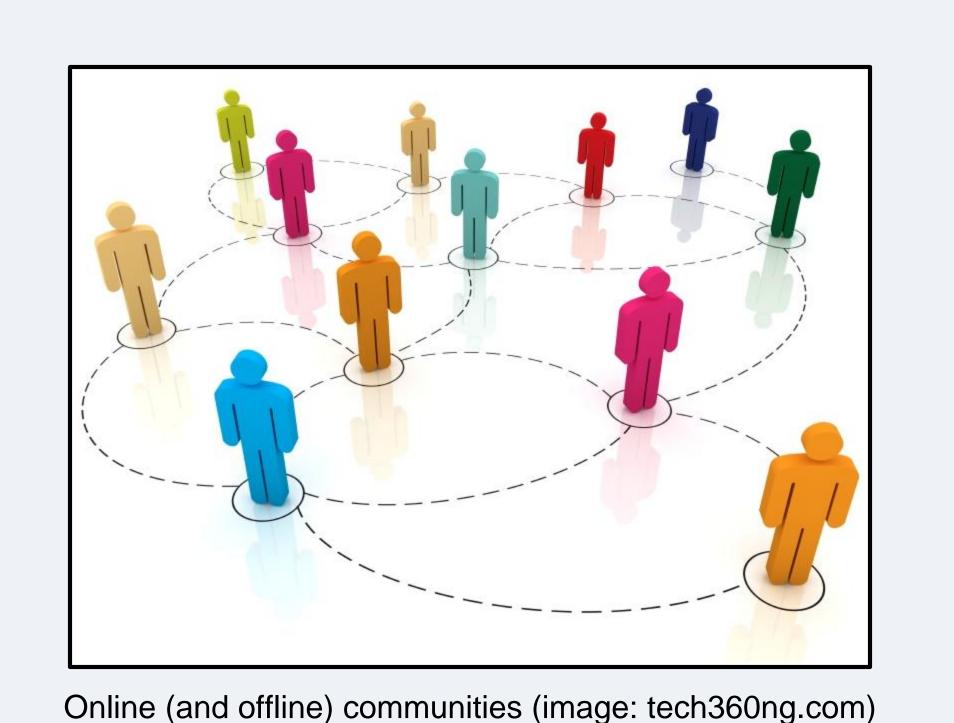
- Difficult to screen participants
- Recruiting strategy and limitations:
- Screeners, data collection,
   PII, and OMB clearance

## Conclusions

## (Taking Usability to the Users)

Large-scale, online usability testing creates opportunities to:

- Test users in the field and online using different devices
   Include large diverse and
- Include large, diverse, and distributed user population
- Recruit participants in a rapid, cost-effective way



## Other (Related) Tools & Techniques

# Crowd-Sourcing Design Feedback:

- Useful to involve users in the design process and get their buy-in
- Challenging to orchestrate and focus feedback to avoid overload and chaos

# Online focus groups, interviews, moderated chats:

- Useful to pinpoint site strengths/weaknesses, and identify user wants/needs
- Challenging to ensure representation of target "actual" audiences

# Formal, moderated usability testing:

- Useful to perform specific navigation/functionality testing including direct user communication and observation
- Challenges: requires formal recruiting, software, hardware; time consuming analysis and reporting

### Surveys & Polls:

- Useful to collect targeted and general feedback
- Challenges: survey/polling, strategy/methodology; responsiveness/follow-up

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