

Remote Usability Testing: Observing User Behavior From Afar

Dick Horst and Andrew Schall

Web-sharing applications offer the opportunity to conduct usability testing “remotely,” without the test moderator and test participant being co-located. This presentation will include a live demo of some methods for interacting with remotely located users, and show configurations for likewise accommodating remotely located test observers or an out-of-lab test moderator. We will discuss the pros and cons of remote testing, approaches for moderating remote tests of different types of user interfaces, and some best practices.

About the Speakers:

Dick Horst is the founder and President of UserWorks, Inc., a usability engineering consulting firm in the Washington, DC area. Dick has conducted or overseen more than a hundred usability testing projects for organizations in government, the private sector, non-profits, and academia. Remote testing methods have been increasingly utilized over a five year period. Dick has a Ph.D. in experimental psychology from Carnegie-Mellon University and is a board certified professional ergonomist.

Andrew Schall is a Project User Interface Designer and Usability Specialist at UserWorks. He also manages UserWorks' lab facilities. He has conducted both in-person and remote usability testing for numerous clients in the public and private sectors. Andrew has a B.S. in information technology from the Rochester Institute of Technology and is completing his master's degree in interaction design and information architecture at the University of Baltimore.

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What do we mean by “remote ” usability testing?

Conducting usability tests without the
participant and moderator being co-
located:

- With real-time interaction between the participant and test administrator (moderated; qualitative; synchronous; same time, different place)*
- Without real-time interaction between the participant and test administrator (un-moderated; quantitative; asynchronous; different time, different place)

*This is the style of remote testing we will be talking about

Who can be “remote”?

Typically, the “host” computer is in the “lab,” being video recorded. Any or all of the following can be remote:

- The participant
 - The participant remotely controls the host computer and talks with the moderator in real-time
- The moderator
 - The moderator can locally or remotely view (and interact with) the host computer being controlled by the participant, and talks with the participant
- The observers
 - Local or remotely located observers can watch and listen to the session in real-time, and take notes that can be synchronized with the recording

Some tools for moderated remote interactions with test participants

- GoToMyPC
 - www.gotomypc.com
- GoToMeeting
 - www.gotomeeting.com
- Breeze
 - www.adobe.com/products/acrobatconnectpro
- Ethnio
 - www.ethnio.com
- Live Meeting
 - www.office.microsoft.com/en-us/livemeeting/HA102026531033.aspx
- UserVue
 - www.techsmith.com/uservue.asp
- WebEx
 - www.webex.com

Advantages of interacting with participants remotely

- Involve a geographic mix of participants
- Participants perform in their “native” environment
- Relatively easy to set up
- Convenient for the participant; easier to recruit
- Can be less costly than in-person activities (Less for participant, more for staff?)
- Results tend to be comparable to in-person activities

Performing a remote usability test

- Both the moderator and participant have control over the mouse & keyboard
 - Participant typically controls the application being tested to complete tasks and point to areas being discussed
 - Moderator can take control to demonstrate or to point to areas being discussed
- Moderator and participant converse live by phone
- Fill out post-experience questionnaire online
- Screen interactions and audio can be recorded for later analysis

Moderator configuration

- Telephone line or VOIP
- Broadband Internet connection
- Computer with Windows XP or Vista
- Remote connection software
- Screen recording software
- Microphone or phone line recorder



Participant configuration

- Telephone line or VOIP
- (Preferably) Broadband Internet connection
- Computer with Windows or Mac OS
- Remote connection applet is automatically downloaded for duration of the session, then deleted



Common procedures for a remote study

Recruit and screen the participant

Obtain informed consent

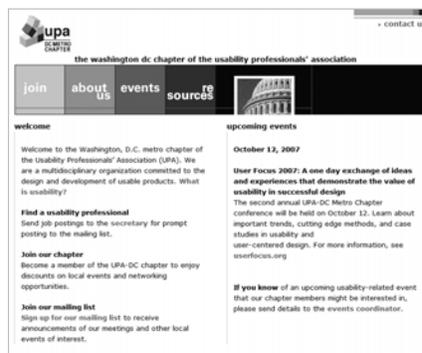
(A good idea to confirm ability to connect)

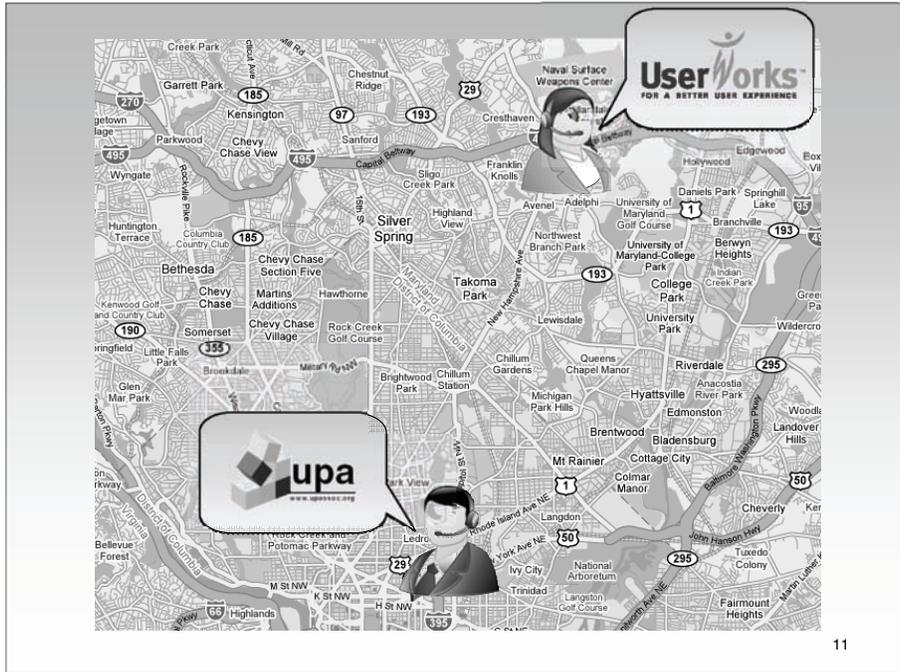
1. Initiate call to participant
2. Introduce the study, orient the participant
3. Begin data collection activity
4. Periodically remind about think-aloud
5. Administer post-experience questionnaire
6. Thank participant & end session

Mail or email incentive payment

Live demonstration objectives

- Evaluate the usability of the UPA-DC-Metro website
- Test with a remotely located participant
- Record session for later analysis





11

Tips for preparing remote sessions

- Screen participants carefully because you won't meet them in-person
- Make sure the participants understand their rights and give informed consent
- Test the phone & Internet connection beforehand
- Take account of different time zones



Cartoon by Peter Steiner, The New Yorker

Tips for running remote sessions

- Be sure that participant has screen maximized and at same resolution as the host
- Ask participants to point with the cursor at what they are talking about
- Make sure that observers have their phones or microphones muted
- Don't start recording until participant's permission is documented
- If the study protocol permits, urge more than usual thinking aloud to clarify any ambiguities in participants' intentions, frustrations, preferences
- Be sure that participant's system configuration supports the application being presented (e.g., Javascript enabled, pop-up blocker disabled)

Beyond remote usability testing

Remote methodologies can be applied to other user research activities including:

- Focus groups
- Design walkthroughs
- Card sorts
- Contextual inquiries
- Collaborative design

Remote, moderated studies with groups

- All or some of the participants can be located remotely
- All or some of the observers can be located remotely
- Moderator can demonstrate application or present visuals to all participants simultaneously
- Hands-on control can be given to anyone attending the session, including participants
- No need for traditional focus group facility

Tips for running remote focus groups

- Many in-person with a few remote
 - Make sure that the remote participants are actively participating and are included in the conversation
 - Make sure that remote participants can view the same materials that everyone in-person can see
- All remote
 - Ask participants to identify themselves before they speak
 - Try to prevent participants from talking over one another
- Always have a backup
 - Store documents to be shown to participants locally and available elsewhere online if possible
 - Have electronic copies available in a standard format (Word or PDF) in case certain participants are unable to connect to the session

Remote studies with low fidelity prototypes or other artifacts

Subject of study doesn't have to be:

- Fully functional
 - Wireframes
 - Static mockups
 - Banner ads, pop-ups
- Browser based
 - GUIs
 - Card sorting
- Based on observation of participant performance
 - Expert walkthroughs
 - Collaborative design
 - Contextual inquiry; in-depth interviews
 - Co-discovery

Tips for running remote studies with low fidelity (or no) prototypes

- Share control of the mouse & keyboard; verbalize handoffs
- Encourage use of the cursor to point to what is being discussed
- If possible, make low fidelity materials click-through
- Realize that there can be subtle differences in color, brightness, sharpness between monitors
- Obviously, non-functional prototypes can't be tested with certain technologies that remote users may be using (e.g., screen readers; voice input devices)

The downside to remote methods

- Can not exchange physical artifacts, have the participant sketch, sort physical cards, etc.
- Can not observe facial expressions, gestures, other nonverbal cues
- Can not be used to evaluate devices, non-electronic materials, tasks where participants move around
- Certain participant input devices may not work remotely
- Can be difficult to develop a rapport with participants
- Participants are sometimes suspicious of the technology
- Occasional technical complications (firewalls, dropped connections, etc.)

Where can I learn more?

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Download a copy of the presentation and handout

<http://www.userworks.com/UPADC2007>

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