Methods for Assessing Web Design through the Internet

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Studying Web users in natural settings—working from their PCs at home—requires remote testing through Web sites that seamlessly present design variations, track user behavior, and deliver surveys that collect data on user experience and demographics.

Delivering an experiment via the Web has many potential benefits. It can also be difficult to ensure internal validity and test reliability, capture user behavior unobtrusively, extract meaningful information from server logs, and collect valid survey data.

Guidelines for running Web design studies through the Internet

Providing a Natural Experience
To make study URLs appear natural and hide study conditions from participants:
- Use server-side instrumentation to invisibly assign users to study conditions.
- Limit indications that participants are in a study to:
  - Study instructions (if needed)
  - Consent information (as required)
  - Surveys

Handling Study Dropouts
To retain users in the study:
- Perform the study with fast-loading Web pages.
- Limit length of survey instruments.
- Offer incentives to those who complete the study (note: this may increase the chance of recruiting non-target users).

Identifying Back Button Use
To track users’ movements reliably if their browser caches the Web pages:
- Infer back button use when logs indicate a mismatch between originating page and last known page request.
- Control browser caching by inserting no-cache directives in study pages.

Pilot Testing Before Final Study
To check for problems with the study:
- Perform a usability test before launching the study to ensure that remote participants will understand the study materials.
- Test the study materials on different browsers and platforms.

Avoiding Non-Target Users
To attract targeted user population:
- Provide instructions on the study home page that state who should participate.
- Use a demographics survey to identify target vs. non-target users.
- Advertise the study on Web pages that are likely to be visited by target users.
- Distribute advertisements to target users.

Meeting IRB Requirements
To obtain consent on the study home page:
- Describe the study risks and eligibility criteria.
- State that participants can leave by closing their browser.
- Save study data logs in a secure database or a password-restricted location.