

User Research: Data Gathering

9/27/18

Professor Nathan J. McNeese

Activity: Create a Questionnaire

- 15 questions for a user on evaluating a smart phone
- Questions may range in context covered but should be on 5 point Likert survey
- When questionnaire is completed go over it with someone else and discuss what was good/bad about the questions presented.
- Total of 20-25 minutes.

Observation

Direct observation in the field

- Structuring frameworks
- Degree of participation (insider or outsider)
- Ethnography

Direct observation in controlled environments

Indirect observation: tracking users' activities

- Diaries
- Interaction logging
- Video and photographs collected remotely by drones or other equipment

Structuring frameworks to guide observation

- Three easy-to-remember parts:
 - The person: Who?
 - The place: Where?
 - The thing: What?
- A more detailed framework (Robson, 2014):
 - Space: What is the physical space like and how is it laid out?
 - Actors: What are the names and relevant details of the people involved?
 - Activities: What are the actors doing and why?
 - Objects: What physical objects are present, such as furniture
 - Acts: What are specific individual actions?
 - Events: Is what you observe part of a special event?
 - Time: What is the sequence of events?
 - Goals: What are the actors trying to accomplish?
 - Feelings: What is the mood of the group and of individuals?

Planning and conducting observation in the field

- Decide on how involved you will be: passive observer to active participant
- How to gain acceptance
- How to handle sensitive topics, eg. culture, private spaces, etc.
- How to collect the data:
 - What data to collect
 - What equipment to use
 - When to stop observing

Ethnography (1)

- Ethnography is a philosophy with a set of techniques that include participant observation and interviews
- Debate about differences between participant observation and ethnography
- Ethnographers immerse themselves in the culture that they study
- A researcher's degree of participation can vary along a scale from 'outside' to 'inside'
- Analyzing video and data logs can be time-consuming
- Collections of comments, incidents, and artifacts are made

Ethnography (2)

- Co-operation of people being observed is required
- Informants are useful
- Data analysis is continuous
- Interpretivist technique
- Questions get refined as understanding grows
- Reports usually contain examples

Online Ethnography

- Virtual, Online, Netnography
- Online and offline activity
- Interaction online differs from face-to-face
- Virtual worlds have a persistence that physical worlds do not have
- Ethical considerations and presentation of results are different

Observations and materials that might be collected (Crabtree, 2007)

- Activity or job descriptions.
- Rules and procedures that govern particular activities.
- Descriptions of activities observed.
- Recordings of the talk taking place between parties.
- Informal interviews with participants explaining the detail of observed activities.
- Diagrams of the physical layout, including the position of artifacts.
- Other information collected when observing activities:
 - Photographs of artifacts (documents, diagrams, forms, computers, etc.)
 - Videos of artifacts.
 - Descriptions of artifacts.
 - Workflow diagrams showing the sequential order of tasks.
 - Process maps showing connections between activities.

Observation in a controlled environment

- Direct observation
 - Think aloud techniques
- Indirect observation – tracking users' activities
 - Diaries
 - Interaction logs
 - Web analytics
- Video, audio, photos, notes are used to capture data in both types of observations

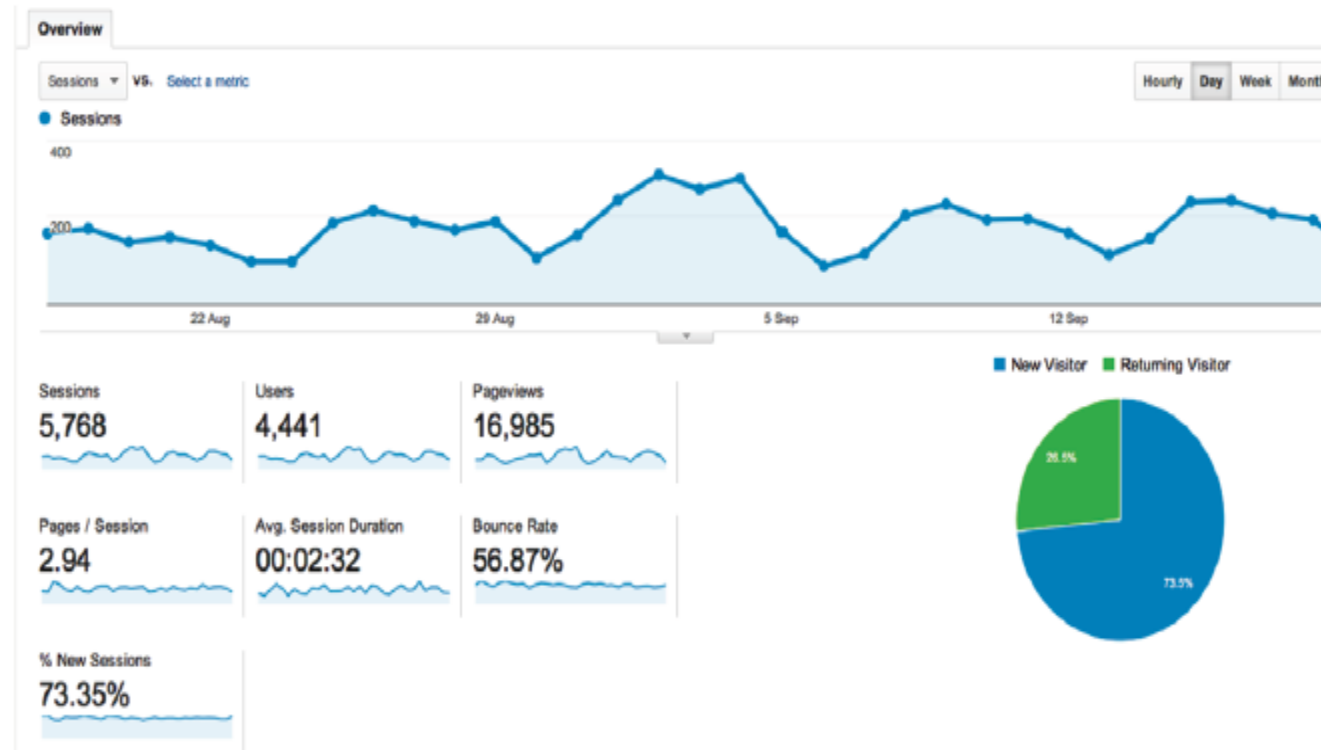
Web analytics

A system of tools and techniques for optimizing web usage by:

- Measuring,
- Collecting,
- Analyzing, and
- Reporting web data

Typically focus on the number of web visitors and page views.

A section of Google analytics dashboard



(a)

Figure 7.14 Segments of the Google Analytics dashboard for id-book.com in September 2014
(a) audience overview, (b) screen resolution of mobile devices used to view the website

Choosing and combining techniques

Depends on the:

- Focus of the study
- Participants involved
- Nature of the technique(s)
- Resources available
- Time available

Summary

Data gathering sessions should have clear goals.

An informed consent may be needed.

Five key issues of data gathering are: goals, choosing participants, triangulation, participant relationship, pilot.

Data may be recorded using handwritten notes, audio or video recording, a camera, or any combination of these.

Interviews may be structured, semi-structured or unstructured

Focus groups are group interviews

Questionnaires may be on paper, online or telephone

Observation may be direct or indirect, in the field or in controlled settings.

Techniques can be combined depending on the study focus, participants, nature of technique, available resources and time.

Activity: Observations

- Leave the classroom and go to any place on campus where you can directly observe humans
- Do this for 15 minutes and take copious and detailed notes on the observations.
- Try to identify overall themes from your notes.
- Come back to class at specified time.
- Analyze your own notes and be critical of what you did good and bad in regards to observing.

Reading for next class...

275-301