Research + Design

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Today’s Agenda

**Research + Design:**

- Introductions and training goals
- Presentation on what is field research, the research process, and how it fits within product development
- Presentation and demonstration of the different kinds of field research techniques and when to use them
- Visual story questions development
Introduce yourself

- Name
- Home department/specialty
- 1 learning goal for today’s session
Learning goals for class

At the end of class, you should be able to do the following:

- Evaluate which kinds of research are appropriate for each step of the product development cycle
- Explain to someone outside of the session: what is field research, how it differs from other forms of research, and what are the four steps in the research process
- Select from a group of field research techniques the ones that will best elicit how people think, what they do, and what they use
- Form questions to use the visual story research technique
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Why do research?

Research helps you ground your business, technological, and/or design assumptions in people's actual attitudes, behaviors, and actions.

This enables you to more confidently make decisions by knowing that the way in which you have framed the problem and its solution meets the needs of the people who will directly affected by your decisions.
There are many different forms of research that fit within the development process, for products and/or user interaction.

- Ethnographic field research
- Surveys
- Secondary research (industry, market, benchmarking, etc.)
- Focus groups
- Product assessments (heuristic evaluations, data clickstream analysis)
- Ethnographic field research
- Participatory design research
  - card sorts
  - concept testing
  - task flow analysis
- Participatory design research
- Brand attributes testing
- Lo-fi prototype testing
- Usability testing
  - Hi-fi prototype testing
- Usability testing (lab)
  - Hi-fi prototype testing
  - User acceptance testing
- Ethnographic field research
- Surveys
- Focus groups
- Product assessments (heuristic evaluations, data clickstream analysis)
- Usability testing (field)
Some forms of research focus on exploring who are your potential users, what products you want to build, and what are your main business problems.

**Discover**
- Ethnographic field research
- Surveys
- Secondary research (industry, market, benchmarking, etc.)
- Focus groups
- Product assessments (heuristic evaluations, data clickstream analysis)

**Define**
- Ethnographic field research
- Participatory design research
  - card sorts
  - concept testing
  - task flow analysis
- Usability testing (lab)
  - Hi-fi prototype testing
  - User acceptance testing

**Design**
- Participatory design research
  - Brand attributes testing
  - Lo-fi prototype testing
- Usability testing
  - Hi-fi prototype testing

**Build**
- Participatory design research
  - Brand attributes testing
  - Lo-fi prototype testing
- Usability testing (lab)
  - Hi-fi prototype testing
  - User acceptance testing

**Evaluate**
- Ethnographic field research
- Surveys
- Focus groups
- Product assessments (heuristic evaluations, data clickstream analysis)
- Usability testing (field)
Some focus on generating ideas for your target users, what products are desirable and useful to them, and what are your main business constraints.

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While others focus on evaluating whether your products allows users to accomplish their tasks and what are the business metrics of success.

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- Usability testing (lab)
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- Ethnographic field research
- Surveys
- Focus groups
- Product assessments (heuristic evaluations, data clickstream analysis)
- Usability testing (field)
Field research is research that takes place in the main contexts of the users that you are studying. It consists of observation, self-documentation and/or interviewing…

…in order to more holistically (completely and deeply) be able to understand the behaviors and actions of your users in their natural settings of use.
As opposed to focus groups and surveys, field research enables you to have a better understanding of what people do as well as what they say.

It is important to observe what people do and not just focus on what they say because:

- People may not be able to express in words what it is that they do
- People may not remember accurately what they do
- People may deliberately lie about what they do

I put the whatchamacallit in the, you know, umm… thing.

On Fridays, I stack the important papers in piles on my desk so that everything will be easy to find on Monday.

I’m not one of those “important” guys on the cell phone talking all the time.
The field research process consists of four steps.

### Planning
- Understanding the problem and objectives
- Defining what you need to know and from whom
- Recruiting the right people (sampling)

### Data Collection
- Reading secondary materials
- Observing people
- Interviewing people
- Gathering self-documentations

### Analysis
- Capture data
- Sort data
- Interpret data (identify connections and insights across the data)
- Synthesize data (apply insights to wider problem and objectives defined in planning)

### Communication
- Create models of the users (profiles, user types, segmentations, scenarios)
- Create models of the user's processes (interaction models, process flows, task flows)
- Create lists of key useful kinds of data (feature/function matrices, content audits)
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“Think, do, use” is a concept for defining the primary focus of different field research data collection techniques.

**Think**
User’s attitudes and perceptions

**Do**
User’s behaviors (routine) and actions (spontaneous)

**Use**
User’s objects and tools
Interviews capture best what people think and use.

Interviews include both dialogues and activities that seek to learn how people understand their experiences and interact with objects. Key attributes of optimum interviewing are:

- A focus on general issues
- Conducted “one-to-two”
- Made up of open-ended questions
- Done in context
- Best complemented with interactive exercises

Other kinds of interviews include expert, phone, and network interviews.
Observation techniques capture best what people do and use.

Observation is watching people in action in order to learn about their routine behaviors and interactions with objects. Optimized observations consist of:

- A focus on specific activities, but an awareness of other interactions
- Some asking of clarifying questions to ground the behavior in user intent
- Done in context
- The capturing of images through still or video digital cameras

Observation activities include specific user shadowing, anonymous field observation, and hanging camera.
Self-documentation techniques capture best what people think and use.

Self-documentation techniques allows participants to frame their experience in their own words and images. Key attributes of good self-documentation research are:

- A focus on processes of long duration and high frequency
- Made up of open-ended questions
- Users express themselves in “native” language
- Images include photographs, collages, and physical objects

Visual journals and video diaries are two popular self-documentary techniques.
Budget and time constraints often limit the number and kinds of field research techniques that you can use.

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<tr>
<th>Low Budget</th>
<th>Medium Budget</th>
<th>High Budget</th>
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<td>Low Time</td>
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<td>Phone interview</td>
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<td>Field observation</td>
<td>In-context Interview</td>
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<td>High Time</td>
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<td>Shadowing</td>
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<td>Camera hanging</td>
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Specific techniques are often best suited for different phases of the product development cycle.

- **Discover**
  - Phone interview
  - Field observation
  - Network interview
  - Camera hanging

- **Define**
  - In-context Interview
  - Shadowing
  - Visual journal
  - Video diary
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Visual story is a self-documentary technique that allows participants to frame their experience in response to a protocol. Participants are given disposable cameras and asked to capture aspects of an experience on film and annotate each photo in a logbook.
About the visual story technique – what is it good for?

Good for documenting experiences which take place over a relatively long period of time.

Allows participants to ‘narrate’ their own experience and interpret protocol questions without researchers present.

Good for gathering native categories & language.

The privacy of this technique makes it less invasive.
Visual story that focuses on processes
Visual story that focuses on emotional impressions

Red, white & blue because of our flag. But bright colors as well that represent the island atmosphere.
Visual stories can now be digital through blogs on the web

Cheyenne's Civic Experience blog

Bienvenidos

Bienvenidos to your Design for Democracy civic experience visual story blog.

Thank you for agreeing to participate. We look forward to sharing your visual experiences.

If you have any questions, contact your UIC student researchers.

Dori
posted by Cheyenne's blog @ 10:12 AM
Creating a visual story for the *mess experience* (Pactiv Corporation)

For each exercise, break into groups and take 10 minutes.

**Step one:**
Brainstorm questions that get to what people THINK about “mess”.

**Step two:**
Brainstorm questions that get to what people DO with “mess”.

**Step three:**
Brainstorm questions that get to what people USE for “mess.”

**Step four:**
Report back to the larger group.
Recap of learning goals for class

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