Lecture 5: Interpretation & Affinity Diagram

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Acknowledgement:
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Announcements

• The description of G1, G2 & G3 are out
Lecture Plan

• **Session 1** *(30 minutes)*
  – Lecture

• **Session 2** *(44 minutes)*
  – Workshop Part 1

• **Session 3** *(30 minutes)*
  – Lecture

• **Session 4** *(60 minutes)*
  – Workshop Part 2
  – Feedback
  – Submission of class exercise
Session I

30 minutes

• Lecture
  – Outline of the class/workshop
  – How to conduct an interpretation session
Data from Contextual Inquiry
The Interpretation Session

• The interpretation sessions let every team member experience all interviews
• Interpretation sessions enable sharing and mutual discovery
What Happens?

• Interviewer/s walk/s through a single interview
• Others listen, ask questions, record issues, interpretations and design ideas
• Each person has a role assigned
Roles

• Interviewer(s)
  – Describes things as they happened
  – Do a retrospective account with the interviewer
  – Is interrupted all the time – have notes handy

Give everyone a job to keep them involved
• Interviewer(s)
• Two Work Modellers
• The Recorder
  – Notes typed and projected (we will just use post-its here)
  – While recording, state clearly and succinctly the insight or issue
  – Notes example
What to Record in Notes?

• Key observations (KO)
• User statements (US)
• Breakdowns (BD)
• Insights (I)
  – Influences from the cultural model (cultural insights)
• Design ideas (DI)
• Questions and ambiguities (QA)

• Notes are used later to build the affinity
What to Record in Notes?

• Key observations
  • User has several joint accounts with family members
  • Has mugged up the key sequence, ignores the screen

• User statements
  • “Friends are there to lend us money in an emergency”
  • “There is always some paste in the toothpaste”
  • “HIV is a virus, not a disease”
  • “You send [the SMS] madam, I will manage.”
  • “We brush our teeth twice a day.”

• Breakdowns
  • Each medical report is 1-3 pages long, but has only one or two relevant numbers – thick files, time
  • “[I should not miss my pills, else] doctor will scold me”
  • “There are girls [at the counter]” – hence avoids the branch
What to Record in Notes?

• Insights
  • Banking and finance is a family activity (not individual)
  • Subtle screen changes may not be noticed by rote learners
  • Giving petty loans to friends is a part of the culture
  • Technology barriers could be easier to overcome than social barriers
  • People are desperate for information about HIV and lack an authentic source
  • People have procedural knowledge, but lack conceptual understanding about HIV
If more than 4 people ...
Roles...

• The Interviewer(s)
• Two Work Modellers
• The Recorder

• The Moderator
  – Keeps everyone busy and on topic
  – Makes sure everyone participates
  – Keeps the pace brisk
  – Reorients the interviewer if he gets lost
  – No meeting works without someone taking the role of moderator
Roles...

- The Interviewer(s)
- Two Work Modellers
- The Recorder
- The Moderator

- Participants
  - Listen, ask questions, understand and develop insights
  - Capture design ideas to avoid discussing them now
  - Watch notes and models to ensure that they are right
Roles

- The Interviewer
- Two Work Modellers
- The Recorder
- The Moderator
- Participants
Building a Shared Understanding

• Better data
  – Everyone asks questions, so interviewer remembers more

• Written record
  – Insights, design ideas and questions
  – Work models and notes during the discussions

• Effective cross-functional cooperation
  – Focus on data and extracting meaning from data
Building a Shared Understanding...

• Better data
• Written record
• Effective cross-functional cooperation
• Multiple perspectives on the problem
  – Triangulation
  – Someone will see more in the interviews – so don’t filter
  – Predigested presentation of interviews will limit information
Building a Shared Understanding...

• Better data
• Written record
• Effective cross-functional cooperation
• Multiple perspectives on the problem
• Development of a shared perspective
  – By hearing other perspectives, everyone expands their focus
Building a Shared Understanding...

• Better data
• Written record
• Effective cross-functional cooperation
• Multiple perspectives on the problem
• Development of a shared perspective
• True involvement in the data
  – Speeches tend to get boring, attention wonders and everyone misses some points
  – Interpretation reveals data interactively
  – Everyone has a job to do – take notes, moderate, ask questions
Building a Shared Understanding...

- Better data
- Written record
- Effective cross-functional cooperation
- Multiple perspectives on the problem
- Development of a shared perspective
- True involvement in the data
- Better use of time
  - Talk, write and understand at the same time
Running the Interpretation Session

• Interpret interviews within 48 hours
  – Same day – only notes
  – Next day – annotate notes from tapes
  – More than 48 hours – transcribe notes from tapes

• Capture demographics in a separate file
  – Keep them private

• Keep a brisk pace
  – It can get a bit chaotic, but if everyone is paying attention to everything, that’s OK
  – Be non-judgmental – don't evaluate ideas
At the End

• Capture top insights at the end and keep building the top insights list
  – You can communicate this to others in the organization
• Models, notes, top insights and design ideas are the first deliverables
Interpretation Session

- Should not be “another time-wasting meeting”
  - Actual work should get done
- Turn interview into data
- Foster cross-functional creativity and understanding
The Sharing Session

• Share if there are other sub-teams
• Present the work models, update if new findings come
• Recorder should add any new notes
• Sharing is active, it’s not a presentation
Session 2

44 minutes

• **Workshop Part 1 (Interview and Data collection)**
  – Interview 1 (8 min)
  – Interview 2 (8 min)
  – Interview 3 (8 min)
  – Interpretation & writing down notes (20 min)
  – Note: for each team, the interviewees must include both genders, and at least two different devices (such as iPhone vs. Android or iPhone vs. iPad, etc.)

• **Deliverables**
  – Notes
Session 2: Interview

What to look for?

• **Topic:**
  – The interaction experience with mobile devices on the move

• **Interviewee**
  – Each group will have interview 3 students from other groups (in sequence)
  – Each Interview session should not exceed 8 mins
  – Try to be consistent: both Interview should have similar questionnaire (although adjustments can be made for the subsequent interviews)

• **Roles of team members**
  – Interviewer, interviewee, recorder, moderator
  – Change your role in next session. For example, the interviewer in one session can become interviewee in the other session
  – The interviewee will provide feedback on the quality of the interview
Session 2: Write Down Notes

How to log information?

• During Interview
  – Write down user statements and any other observations

• After Interview
  – Interpretation session
  – While writing notes, state the insight clearly and succinctly
  – One note should consist of a single fact
  – If a user statement have multiple insights, break them down into multiple notes.
Announcement

Before the Class

• Prepare Questionnaire
  – During the class, you need to conduct three interviews (8 minutes each) in sequence. The interviewees will be your classmates.
  – Interview topic - “Interacting with mobile devices on the move”
  – Think of the questions you want to ask before the class on the given topic. This will help you to gather better data and insights during the class interview. Use the lessons learned from contextual enquiry class to prepare the questionnaire. Please do this independently.
  – You need to submit a class exercise (affinity diagram) at the end of the class. So, please be on time!
In-class Workshop
Session 3
30 minutes

• Lecture
  – Instructions on how to construct affinity diagram
  – How to seek insights from user statement
    • Examples
  – How to group the facts?
    • Examples
  – How to capture ambiguities and uncertainty?
  – How to submit class exercise?
Contextual Design Concepts

- Contextual Inquiry
- Work Models
- Interpreting Interviews
- Affinity Diagram

- Consolidation of Work Models
- Work Redesign
- User Environment Design
- Mock up and test with users
Affinity Diagram is a Consolidation Process

It is the fastest and best method to see all the issues across your user population
Why Consolidate?

• The challenge is to design for a population, but meet the needs of the individual
• See the work as a whole to invent systems that support the work coherently
  – Incomplete support for work creates an opportunity for competitive products
Why Consolidate?

Products: Design Issues

• Manage differences, contradictions
  – Don’t let individual differences blind you of common patterns of work

• Avoid point solutions – see the big picture
  – Plan products to address coherent work practice
    • What happens if we remove the guard?

• Expand the scope of a product
  – Grow product offerings to support related work
    • Home accounting > loans? Insurance? investment?
How to Consolidate?

• Inductive reasoning is key to seeing pattern
  – Reveal the users’ story by seeing the pattern behind the instance
  – Variation exists within a structure – it isn’t random
  – Remember, many conclusions are possible
  – Arguments are never binding but may be cogent
Affinity Diagrams

• Create a bottom-up hierarchy of notes
  – Key observations
  – User statements
  – Breakdowns
  – Insights
  – Design ideas
  – Questions and ambiguities
Goals

• **Summarise**, prioritise, find trends, patterns,
  – Find the rules of the world
  – Push knowledge up the hierarchy
  – Make data more presentable
• **Explain** differences, contradictions
• Generate **new knowledge**
  – More DIs, more concepts
• Help make **design decisions**
  – What matters?
  – How should we respond?
• **Involve** people with the data
Start this way

• Familiarise with data
  – Invite new members
  – Client, marketing, domain experts, friends

• Start with your favourite finding

• Then, everyone looks for what else goes with it
  – No justification needed, but look for affinity

• When you find 3-5 notes, give a label
  – If there are too many in a group, break up groups
  – Add higher level groups to collect groups

• Look for the next favourite note
Remember

• Bottom up
  – Do not start with pre-defined categories

• No justification needed, but
  – Relevant to project focus
  – Same / opposite
  – Ask how this could be relevant to design
  – Go into meaning of notes to see if they go together
  – Check meaning with interviewers

• Don’t be afraid to break up the affinity
  – When notes can be grouped in different ways, choose the grouping that gives more new ideas
How to Build Affinity?...

• CD 159

110. The more recent a legal case, the more persuasive it is

214. Legal case precedents are searched by paralegal staff

360. At milk case, buys 1 gallon or 2 quarts depending on expiration date
How to Build Affinity?

- CD 159

Recent stuff is best

110. The more recent a legal case, the more persuasive it is

360. At milk case, buys 1 gallon or 2 quarts depending on expiration date

720. The most recent house listings are the most desirable; good houses sell quickly
How to Build Affinity?...

• Give a name to represent a group
  – Summarize rather than give a heading
    • “Different ways of searching”
    • “Recent stuff is best”

• Use direct, immediate language
  – As if the user was talking to the designer
    • “Don’t tempt me”

• Labels become the meaning that we design from
  – Try to push the knowledge up in the hierarchy
  – Group to higher orders of hierarchy
  – Generate new knowledge: challenge entering assumptions
  – Build affinity at the end all at once
How to Build Affinity?...

- CD 161

We delegate our work

Why we delegate

I don’t want to deal with it
I have too much work

How I choose who to delegate to

Whoever is available does it
The person with the job does it

How I go about delegating

I gave it away, but I’m still responsible
I gave it away at a meeting
I pass it on informally
An Affinity

• Summarizes findings, makes them manageable, presentable
• Brings in new insights
• Aids design
• Involves people with the data
Affinity Shows

• Problems, opportunities, goals, constraints
  – Issues, worries, key elements of work practice
• Key quality requirements
  – Reliability, performance, support, positioning…
• Hierarchy groups similar issues
  – Creates stories about the user
Affinity Statistics

• Data from 10-20 interviews
• 50-100 notes per user
• Typically 1000 notes per session
• Need about 10 in 1 day or 4 people in 3 days
• Data from 10-15 interviews
• 30-60 notes per user
• Typically 500-700 notes per group
• Need about 10 people to build in two hours
Session 4

60 minutes

• Workshop Part 2 (Construct Affinity Diagram)
  – Construct affinity diagram (20 min)
  – Generate Design Ideas (15 min)
  – Class Exercise (25 min)
  – Take a snapshot of your affinity diagram
  – Feedback

• Deliverables:
  – Affinity Diagram
  – Top insights
  – Design Ideas
  – Class Exercise
Session 4: Affinity Diagram

How to Prepare Affinity Diagram?

• Activities
  – Group the notes (if there is more than 5 in a group, divide them into multiple groups)
  – Label each of the group
Session 4: Class Exercise

What to submit? How to Submit?

• Submit your Class Exercise
  – Write down a short report (1 page) of your affinity diagram and submit it at the end of the class. The report should consist of –
    • Key Insights
    • Design Ideas
    • Questions and Ambiguities (if any)
The End