Design Thinking for SDGs

Session 1 Empathize and
Session 3 Define

Monday August 10, 2020

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Today’s agenda

1) DT Step 1: Empathize
   ○ Empathize with your P, issues in Sustainable Development
   ○ Activity: Empathize recap

2) DT Step 2: Define your problem
   ○ Activity: How Might We question and Problem Statement
Session 3

Define
+
Case study of SDG-incorporated solution
Understand:
- Experience, empathize; users and stakeholders
- Research, benchmark

(re)Define:
- Dissect the brief
- Define the problem
- Redefine the problem

Ideate:
- Possible solutions
- Co-create
- Combine, prioritize, select

Prototype:
- Build to test
  - ...to understand
  - ...to ideate
- Tell stories

Test:
- Test to learn
- With people!
- Provide experiences
(re)Define
Dissect the brief
Define the problem
Redefine the problem

Understand
Experience, empathize; users and stakeholders
Research, benchmark

Ideate
Possible solutions
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Prototype
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...to understand
...to ideate
Tell stories

Test
Test to learn
With people!
Provide experiences
From DT Step 1 Empathizing with Users

Interpretation transforms your stories into meaningful insights.

Observations, field visits, or just a simple conversation can be great inspiration—but finding meaning in that and turning it into actionable opportunities for design is not an easy task.

It involves storytelling, as well as sorting and condensing thoughts until you’ve found a compelling point of view and clear direction for ideation.
Search for Meaning to Define the Problem

**Empathize**
- Find Themes
- Make sense of findings
- Define Insights

**Define**
- What is the actual problem we are trying to solve?
- Who is really affected by it?
- What are the different ways of solving the problem?
Simple technique to identify underlying causes and motivations to get to the bottom of a problem.

1. "Why did the robot stop?"
   The circuit has overloaded, causing a fuse to blow.

2. "Why is the circuit overloaded?"
   There was insufficient lubrication on the bearings, so they locked up.

3. "Why was there insufficient lubrication on the bearings?"
   The oil pump on the robot is not circulating sufficient oil.

4. "Why is the pump not circulating sufficient oil?"
   The pump intake is clogged with metal shavings.

5. "Why is the intake clogged with metal shavings?"
   Because there is no filter on the pump.
Make Insights Actionable

Task 2: Develop Your Problem Statement
DT Step 2: Define

Reframe and define the problem in human-centered ways

To find a solution that is:

- Technically feasible
- Economically viable
- Desirable for the user
Define: Problem Statement

- **Human-centered:**
  - About the people that the team is trying to help
- **Broad enough for creative freedom:**
  - Should not focus too narrowly on a specific method or list technical requirements
- **Narrow enough for management:**
  - Sufficient constraints so that not too daunting (counter-ex) “improve the human condition”
Define: Point of View

● Goal-oriented manner
● **3 elements**
  ● Who is your user?
  ● What is their deep, unmet need?
  ● Why is this insightful?
    ● insights gained from empathize

User… (descriptive) needs ______ (verb), because ________________ (insight, compelling).
Define: Point of View

Resources gathered from DT Step 1: Empathize
Define: Point of View

Korean youth needs to experience activities related to environmental sustainability, b/c schools are unable to do so + lack of awareness will led to inaction on environmental issues.
Korean youth needs to gain experiential learning activities related to climate change, because
1) the current curriculum does not incorporate risks and opportunities of climate change &
2) hands-on experience has been found to influence behavior and action.
Develop “how might we” questions

- Create generative questions around your insights.
- Start each statement with “How might we...?” or “What if...?” as an invitation for input, suggestions, and exploration.
- Generate multiple questions for every insight. Write them in plain language, simple and concise.
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- Using POV, “how might we” questions will help with ideation & set some helpful boundaries
  - HMW create a cone to eat ice cream without dripping
  - HMW redesign dessert
  - HMW redesign ice cream to be more portable
Some tips

- HMW Statement should be focused, not vague
  - How might we resolve the user’s problems?
  - How might we meet user’s needs?
  - How might we leverage existing strengths?

- Create a ton of HMW statements

| Too broad: HMW redesign dessert? | Too narrow: HMW create a cone to eat ice cream without dripping? | Just right: HMW redesign ice cream to be more portable? |
Task: HMW questions + Problem Statement

- **Today:** write down “HMW” q’s on the jamboard.
- **Wednesday:** pick one problem statement after discussion.
  - Trust your gut feeling: choose those questions that feel exciting and help you think of ideas right away.
  - Select the questions that are most important to address, even if they feel difficult to solve for.
In the beginning of the next session, each team will briefly pitch their POV problem statement
Due beginning of the 1st session on WEDNESDAY

Slide one: sentence problem statement

Slide two or more: Background research on your users (empathy step)
Appendix