Human-Centered Design

Human-centered design incorporates users’ needs, wants, and adoption capabilities directly into the innovation process, particularly to develop & refine solutions from early stage ideation through testing, and scale up. This method encourages rapid prototyping of innovative solutions to get meaningful feedback from the potential users, with particular attention to whether the user will be able to adopt the product or service in their environment of use. The term ‘human-centered design’ encompasses various methods and techniques that are applicable at different stages of design and development of solutions, such as:

- **User Involvement**: Users are engaged in various stages of development, providing inspiration, raw ideas, or feedback on adoptability of potential concepts or solutions.

- **Key Expertise**: Various specializations required to carry out HCD methods as a team, depending on the stage of innovation, including ethnographic research, design, prototyping, usability.

- **Key Roles**
  - **Users/Beneficiaries**: Provide first hand knowledge or experience.
  - **Research Experts**: Plan & execute all stages of research process.
  - **Designers**: Develops & iterates potential solutions based on user inputs.

- **Outputs**
  - User-inspired solutions (from ideas, concepts, & prototypes; to finalized products, services, or practices) Refined concepts or solutions based on user feedback, with reduced risk of failed adoption.

- **Cost & Time**
  - **Cost**: Research execution, design & prototype development all require relevant experts which can be costly.
  - **Time**: Highly adjustable depending on your needs and constraints, but running pilots with real users typically requires a minimum of a few weeks.

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Considerations

Hypotheses
Human-centred design can be utilized at various stages of innovation, from ideation, development, to implementation. The most effective outcome can be achieved when you have a clear set of hypotheses around the challenge you want to address.

The process of building such hypotheses can also reveal existing assumptions that your team have on users or the solution you are developing, which may not have been shared or understood earlier.

Research Plan
Involving end users (beneficiaries) in your process always require you to be time efficient, in order to minimize disruptions on their everyday lives, and to maximize your use of time. A detailed HCD research plan should include the scope, geographical locations, profiles and the number of participants, how to interact with them, and lists of questions, observations and tests to make. It should also specify roles of all team members, as you may run several streams of activities simultaneously.

Debrief & Synthesis
Qualitative HCD research findings rely heavily on effective synthesis sessions. Since there is a limit in documenting all aspects of the learnings and insights real-time, running quick debriefing and synthesis sessions frequently and immediately with all research team members to capture the key learnings greatly helps the final synthesis.

Iteration
The value of HCD methods is maximized when you allow time to iterate on innovative solutions, i.e., revising them based on user feedback and validating them again. This may not be always possible, but consider the iterative development as part of the planning process if your project can benefit from iterative refinement towards a final solution. This should also factor in the choice of locations to carry out the iterative process in order to validate the solution in preparation for scaling up.

Interaction with Users-Participants
The way you engage and interact with users will depend on the purpose of your research: From individual interviews, group discussions, observations on the actual usage, to leaving the prototype in users’ hands for a period of time. HCD experts will capture the most important elements for the debriefing and reporting, but being there in person to interact with users always provide richer learning experiences.