Ideation & Sketching

By: Hitesh D. Narang

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Ideation

- Ideation is an active, fast-moving collaborative group process for forming ideas for design.
- Ideation is a tool of design thinking; ideation is applied design thinking.
- Ideation is where you start your conceptual design.
- This is a hugely creative and fun phase.
- Ideation is where you brainstorm to come up with ideas to solve design problems.
- Ideation is inseparable from sketching and evaluation aimed at exploration of design ideas.

Essential Concepts for Ideation (1)

- Iterate to explore:
  - Ideation involves exploration and calls for extensive iteration.
  - Be ready to try, try, try, and try again.
  - Think about Thomas Edison.
  - Make sketches and physical mock-ups **early and often**, and **expose customers and users to your designs**; **involve them** in their *creation, exploration, and iteration.*
  - This process is never formal; as well as there are no established methods for this process.
  - There are many alternatives to compare at a fast, furious and freewheeling pace. If you are starting to compare few alternatives, you are doing something wrong.

Essential Concepts for Ideation (2)

- Idea creation vs. critiquing:
  - There are two modes of thinking in the active process of design:
    - Idea creation
    - Critiquing
  - Idea creation is about the generation of new ideas and throwing them out for discussion and inspiration.
  - Critiquing is review and judgment.
  - Throughout the design process, always be aware that in which mode you have to be; otherwise there can be stifles between people.
  - Idea creation leads to the free flow of ideas while critiquing is actual judgement.
  - Example: *Implementation know-it-all.*

Doing Ideation (1)

- Set up work spaces
- Assemble a team
- Use ideation bin ideas to get started
- Brainstorm

Doing Ideation (2)

- Set up work spaces:
- Set aside physical work spaces for ideation, individual work, and group work.
- Arrange for dedicated ideation studio space that can be closed off from outside distractions, where sketches and props can be posted and displayed.

Doing Ideation (3)

- The collaborative ideation studio, called the Kiva, in the Virginia Tech Department of Industrial Design.

Doing Ideation (4)

- Assemble a team:
  - The day of the lone genius inventor is long gone; hence a **team.**
  - Gather a creative and open-minded team.
  - We all have the innate ability to think freely and creatively; we just have to allow ourselves to get into the mode—and the mood—for a freethinking flow of ideas without inhibition and without concern that we will be criticized.
  - Try to include people with a breadth of knowledge and skills, cross-disciplinary people who have experience in more than one discipline or area.

Doing Ideation (5)

- Use ideation bin ideas to get started:
  - If you gathered ideation inputs into a "bin" of work activity notes back in contextual analysis, now is the time to use them.
  - An ideation input bin is an unconstrained and loosely organized place to gather all the work activity notes and other ideas for sparking and inspiring design.
  - You should also include emotional impact factors in your ideation inputs because ideation is most likely where these factors will get considered for incorporation into the design.

Doing Ideation (6)

- Brainstorm:
  - Brainstorming is a "conference technique of solving specific problems, amassing information, stimulating creative thinking, developing new ideas, etc., by unrestrained and spontaneous participation in discussion."
  - Ideation is classic brainstorming applied to design.
    - Setting the stage for ideation.
    - The mechanics of ideation.
    - Rules of engagement.

SKETCHING (1)

- We have already mentioned sketching several times.
- Sketching is the rapid creation of freehand drawings expressing preliminary design ideas, focusing on concepts rather than details.

SKETCHING (2)

- Essential Concepts:
  - Sketching is essential to ideation and design.
  - What sketching is and is not.
  - Sketches are not the same as prototypes.
  - Sketching is embodied cognition to aid invention.

SKETCHING (3)

- Sketching is essential to ideation and design:
  - Design is a process of creation and exploration, and sketching is a visual medium for that exploration.
  - Sketches also serve as an important longer-term design documentation.
  - This helps other team members and designers retain understanding of the design and its details as they get into prototyping and implementation.
  - The evolution of your sketches provides a history of your thinking.

SKETCHING (4)

- What sketching is and is not:
- A sketch is a conversation between the sketcher or designer and the artefact.
- A sketch is a medium to support a conversation among the design team members.

SKETCHING (5)

- Sketches are not the same as prototypes:
- Sketches are for exploring the possibilities for creating a design.
- Sketching is designing, whereas prototyping in the usual sense is implementation to build a concrete design representation for testing.

SKETCHING (6)

- Sketching is embodied cognition to aid invention:
  - Sketching is not intended to be a tool for documenting designs that are first created in one's head and then transferred to paper.
  - In fact, the sketch itself is far less important than the process of making it.
  - The process of sketching is a kind of cognitive scaffolding, a rich and efficient way to off-load part of the cognition, especially the mental visualization, to physical artefacts in the world.

References

- The UX Book- Process and Guidelines for Ensuring a Quality User Experience, Rex Hartson

Thank You ☺