Human-centered design(HCD)

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What is HCD?

- HCD is an approach to problem solving, by involving human perspective in all steps of the problem-solving process.
- The term “human-centered design” was originally coined by **IDEO**, a design organization that makes community-oriented projects to combat poverty and create a more sustainable world.
- What distinguishes HCD from other problem solving approaches is its focus on understanding the perspective of the person who experiences a problem, their needs, and whether the solution that has been designed for them is truly meeting their needs effectively or not.

- HDC consist of **3 phases**:
  - ➢Inspiration
  - ➢Ideation
  - ➢Implementation

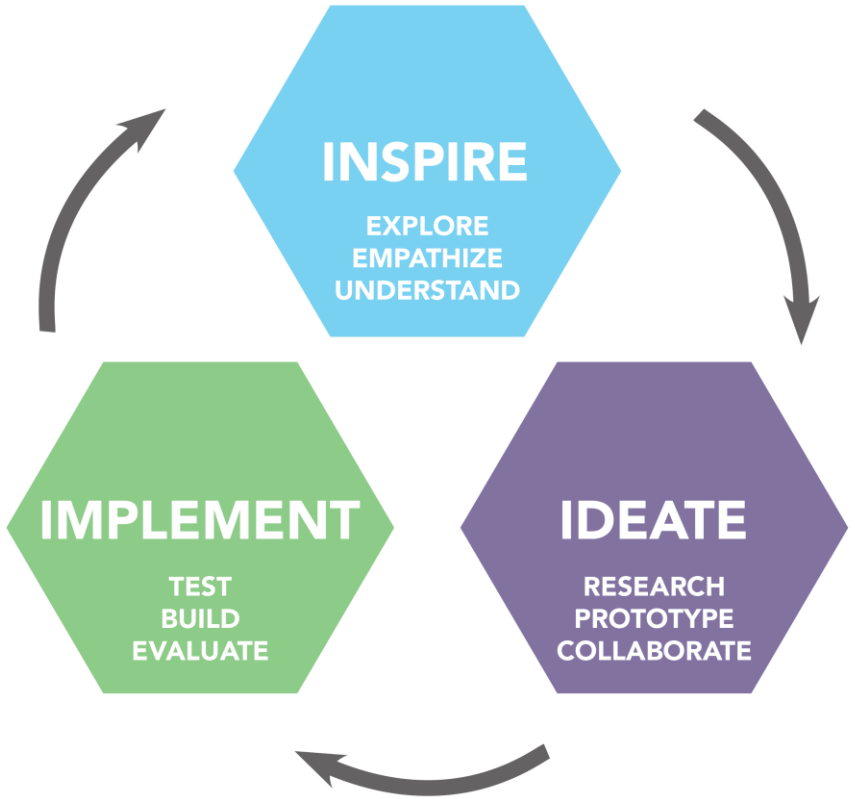

Figure-1: 3 phases of HCD

Source Credit: https://emergentmedia.champlain.edu/2019/04/08/what-is-human-centered-design/

Examples of HCD

1. Kids toothbrush

2. Ketchup bottles

3. Packaging

Patent

Navigation shoe special for blind person:
https://patents.google.com/patent/CN103919664A/en?q=product&q=blind&q=people&oq=product+for+blind+people&page=4

Application number: CN 201420177383

Filing date: 2014-04-14

Inventor: Liu Youer Gao Zhiyong

- The invention relates to a navigation shoe special for a blind person.

- The navigation shoe comprises a shoe body, a wireless Bluetooth headset and a voice player
- A navigation chip is arranged in the shoe body and connected with an infrared sensing probe arranged at the front end of the shoe body, an LED light emitting unit connected with a control device on the outer surface of the shoe body.
- Footwear body, is provided with a cavity, with holds the control device and power supply.
- Footwear body bottom surface, is inlaid with thin slice vibrator, which is connected with the navigation chip by control device, and control device comprises microprocessor and voice recognition chip.

- Compared with the prior art, the navigation shoe has the advantages that the blind person can sense road conditions through the navigation chip.
- The infrared sensing probe on the shoe can give out different sensing signals and generate jittering of different degrees according to size and position of obstacles in front of and beside the blind person so as to help the blind person to effectively avoid the obstacles.
- The LED light emitting unit is arranged on the outer surface of the shoe body, so that when walking on a road, the blind person is enabled to be capable of receiving more attention and more help from the society and other people

References

[1]. https://www.toptal.com/designers/ux/human-centered-design

[2]. https://www.wired.com/insights/2013/12/human-centered-design-matters/

[3].https://patents.google.com/patent/CN103919664A/en?q=product&q=blind&q=people&oq=product+for+blind+people&page=4

[4]. http://www.rspsoc.org/shoes-with-sensors-detect-obstacles-and-lead-the-blind/