

Human Centered Design: Needfinding

Participant Observation

An effective starting point for designing new technology is to clearly identify an existing problem or user need.

Observing people can also help you build empathy and think from their point of view, walk in someone else's shoes or maybe where someone else's gloves.

- 👉 You can observe a lot **by just watching**.

- ~ *Yogi Berra*, Philosopher

- Hallmark Research on Participant Observation

In 1914, **Bronislaw Malinowski** traveled to the Trobriand Islands in Papua New Guinea. While he's there, World War I breaks out, and he has two options. He can either stay on the islands or he faces internment. He was an Austrian citizen. I think you can guess which option he picked. During this period, he developed the practices of participant observation which remain a hallmark ethnographic research to this day.

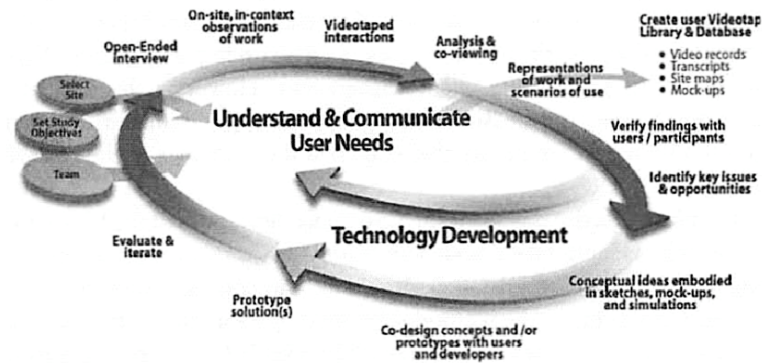
- 👉 Fish don't realize that they live in water.

- But as an **anthropologist**, if you swim with fish, **it'll be really apparent to you**.

- ~ *based on an old quote*

Referred to by **Ms. Geneive Bell** as **Deep Hanging Out** - By spending time with people doing what they do, doing their work, living their lives, you can get beyond the surface things that people might say in a focus group to learn about what they actually do and care about.

- Apprentice Yourself



💡 Seating Next to an expert, you can learn a lot!

- Set up a Partnership
- Learn the steps in the Process
- Observe Practices
- Validate your knowledge as you proceed.

Further Reading

📖 Refer to Szymanski, Margaret & Whalen, Jack. (2011). [Work practice analysis at Xerox](#) which details how **Communal Knowledge Sharing** works and his views on **Process vs. Practice**.

🔗 [Institute of Design at Stanford](#)

📖 Kuniavsky, *Observing the User Experience*

📖 Beyer & Holtzblatt, *Contextual Design*

- Questions to be Answered

- What do people do now?
- What values and goals do they have?
- How are the particular things that you're observing embedded in a larger ecology of artifacts and social networks and broader career and personal and professional goals?
- And what are some similarities and differences across people?
- Do you see everybody in a particular community doing the same thing or are there some things that are more idiosyncratic?

💡 ...one of the **best strategies** for design **observation** and **intervention** is to look for **workarounds** and **hacks**.

- Walmart : Lessons Against Leading Questions

Walmart asked people in focus groups **whether they would like the isles to be less cluttered**. With a leading question like that, the kind that you'll know better than to ask, many people said, "Yeah, we would love it if the Walmart stores were less cluttered". So, Walmart spent hundreds of millions of dollars decluttering their stores, they called 15 percent of the inventory, and what happened was actually **sales went down**.

- 🚫 It's simply to point out that if **you ask people what they want as opposed to observing what they do**, you can easily be led astray.

Interviewing

- Choosing Participants

- **Representative of Target Users**
- **Current Users of a Similar System** if you're creating a better something.
- **Non-Users** to broaden the set of people that can do a task and learn about their inhibitions from doing it.

- Recruiting participants

- **Get a Diverse Set of Stakeholders**

- 💡 Use your **family, friends, relatives** and **social connections** to **broaden the field of search** for participants.

- **Use Incentives and Motivation**

- 💡 The amount that you'll need to pay people **depends on what they believe is going to be used for**.

- Use **ample compensation** if your survey is for a **for-profit** organisation.
- However, it is possible for a **Non-profit** or a **Skunkworks Project** to elicit people to participate in surveys for **free**.

- **Approximating is better than nothing**

- 🧑 For example, Interviewing **computer science students** if the target users were **software engineers**.

- Interviewing the Right Way

- 💡 A **good** interview **always** begins with **open ended questions**.
- ✌️ If I asked people **what they wanted in the age of the horse** and buggy, what they'd say **they want** is a **faster horse**.
- ~ *Henry Ford*, Founder of Ford

👍 Good Questions...	👎 Bad Questions...
...are open-ended questions with a good degree of silence for the participants to collect their thoughts.	...are leading and binary questions that coerce the participants to answer in a particular fashion.
...ask users about what they know they need	...ask users about what they think they need
...ask questions on frequency, likes and dislikes on a concrete, comparative or absolute scale eg. recency	...ask questions on frequency, likes and dislikes without any constraints

- ✌️ Ask... Listen... Everyone has a story to tell... start from the middle
- ~ *Malcolm Gladwell*

Further Reading

- 📖 Malcolm Gladwell, *What the Dog Saw*
- 📖 Steve Portigal, *Interviewing Users*
- 📖 Blomberg & Burrell, *An Ethnographic Approach to Design*
- 📖 Diana Forsythe, *It's just a matter of common sense*

Other Needfinding Strategies

The following strategies are used when in need to observe **longitudinal or sporadic behaviour**.

- Diary Studies

👍 Samples more data, and thus **more usable results** than **direct observation**.

👉 Any time you're changing people's behaviour, like asking them to record into a diary, **they'll do it for a while, and then it's easy to fall off the wagon and forget.**

- Experience Sampling

👍 The idea behind experience sampling is to **"beep"** people **at some regular interval**, and have them write down a key piece of information at that time.

👉 Biased toward highly **conscientious** individuals, and repeatedly reporting one's moods **might itself influence feelings.**

- Extracting Insights on User Needs

- From **Lead Users**

- 💡 All Design is Redesign.

- Come up with **clever** solutions and **valuable design ideas**.
 - It's a Designer's duty to **transform individual solutions to general ones**.

- From **Extreme Users**

- Can be extreme in **any direction** eg. Technophiles and Technophobes
 - May not be the actual users.

- From **Non Users**

- Designers can get to learn their **inhibitions**.

- From **Target Users**


- Those for whom a product or idea is **meant for**.

- Personas

- **Abstract users** who represent what you've found when you went out and looked at real users.
- Includes **demographic information, motivations, beliefs, intentions, behaviours** etc.

- 💡 A Persona should **feel like a living, breathing, human being**.

- Helps build **empathy** for the users.
- Can **reveal new insights**.

■  For notes on some topics that are not elaborated here, please refer to the **sketch notes**.
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