Needfinding

There are multiple ways to find product opportunities, including technological approaches, market approaches and user-focused approaches. Again, majority of products are often a combination of two or more approaches. However, these are all merely the beginning of the needfinding process. While aging baby boomers is a market change that may encourage an increase in products geared towards geriatrics, it does not specify which type of product to create and for what activity. Therefore we turn to the needfinding process. This chapter will discuss the five stages to needfinding:

1. Identify activity or tasks
2. Form hypothesis
3. Desk research
4. Field research
5. Observations/interviews

Successful products

Before diving straight into the needfinding, it is important to know how successful products happen. The principal is quite basic, a successful product needs to satisfy compelling, unmet user needs. Compelling so that consumers will be willing to spend money on it and unmet so that the products stands out in a large market. Finding the right need gives a product this competitive advantage. Be careful not to pursue a design concept because it is “interesting”. The best products are not always mind-blowing, they can be basic functionalities with only slight changes in details.

1. Why are there a million different types of cell phones? What are their different functions?
2. Why are some apps more successful that others?
3. Who are the end users (audience) of the app you designed prototype for?
4. What should you consider for each group of audience for your app?
5. Find similar successful apps to your application, and investigate what users liked or disliked about the application. Mention 5 top apps almost similar to yours.

Needfinding

Needfinding is one process through which we can understand our user needs better. Understanding needs are important as they are often overarching while solutions can constantly change. Additionally, needs can be addressed immediately and accurately whereas predictions about the future are not. Understanding needs leads to better development of the product.

There are two types of needs: expressed and latent. Expressed needs are those that the user directly states, such as “I need a system to keep track of when to take which medication” or “I need a way to communicate with my family when we are apart”. Latent needs are those that users themselves do not know exist. People are very good at work-arounds. We can perform most activities with our existing tools, even if a new product may simplify the task. The Swiffer was created when the designer saw his friend mop up a spilled drink with his sock-covered foot, and proceed to toss the sock out. The mop, which required water and reusing was not as

efficient as tossing out a cheap sock. Thus, a latent need for the Swiffer was discovered.

1. What examples of latent needs can you think of?
2. Is it difficult to do so? Why? Why not?
3. What are good ways of finding latent needs?

Principles of Needfinding

Finding latent needs can be difficult. Luckily, there are a few simple principles that make it easier.

1. *Focus on the needs and not the solutions as that will limit opportunities.*
   If a room is too hot, do not say fan, but state that the room is too hot.
2. *Go to the customer's environment as it makes the need more specific.*
   By immersing yourself in the need group, you would be able to view its problems with "fresh eyes". The Facebook mobile app was done awfully because the software engineers rarely leave the office and use mobile applications. As a result, by not being the user, they could not figure out specific need.
3. *Go beyond the obvious problem.*
4. *Collect different types of data, including notes, photos, video and audio*
   Interviews and observations and data from objects used can all tell different stories. Make findings tangible so that they may be communicated and presented to others.
5. *Iterate*

Why is iteration important when needfinding? when designing?

Steps of Needfinding

1. *Identify a user group and a task (or activity) to study*
   Set an accurate scope when selecting the user group and activity combination; too broad of a combination prevents focus and too specific limits opportunities. Example: home-bound elderly + medication management, families with children + travelling, undergraduates + timekeeping
2. *Form hypotheses about the activity*
   Create hypotheses that can be tested through observations and interviews. E.g. Undergraduates + timekeeping, hypothesis: "College undergraduates use their cell phones to tell time and therefore don't wear wristwatches anymore"
3. *Gather data about the activity*
   a. *Desk studies*
      Before conducting field research, perform desk research to find existing solutions. This may include benchmarking, trips to physical stores or online research. Note the different users for different solutions. E.g. a "consumer" vs "professional" model of refrigerator. The large silvery look that fridges have came from metallic professional refrigerators.
   b. *Field studies*
      Field studies are data that are collected first hand from users. This includes the finding and insights from observations, interviews, and surveys. Visuals such as

photos and videos are very helpful at this stage. At this point, potential solutions can also be drawn.

4. *Identify product opportunities*

General Observations and Interviews Tips

When making observations or interviewing, always try to collect as much information about demographic information, such as age, gender, occupation and location, as possible. This gives information about which user group the subject is a part of. Visit the user at their work, home or play. Venue visits allow direct observations of the user in their setting and is better than relying on the user to describe their setting. It is often difficult for users to articulate what is most natural to themselves. For example, how do you explain balancing on a bike.

Aim to uncover pain points. Knowing frustrations and fears often points towards a need. For example, with the point-and-shoot (as opposed to a front camera), you can't see how you look into a photo until after you've taken it.

When **observing**, find out specifically what tasks they are trying to accomplish and how so. An outsider's perspective makes it easier to uncover workarounds. You can ask questions, but keep them open ended. Do ask "Can you walk me through how you would do this?" Do not ask "What problems do you have during your task?"

When **interviewing,** prepare questions ahead of time. Suppress preconceived notions about the user and products and do not bias the discussion. Aside from questions, ask user for demonstrations. Look out for surprises, these suggest latent needs. Additionally, watch for nonverbal cues, such as nods or frowns.

In your design logbooks, practice going through the needfinding process:

1. List three combinations of user group + activities. Keep the scope appropriate.
2. Using one combination from question 1, form at least three testable hypotheses.
3. Gather data, through desk and field research, about the chosen activity.
4. Identify needs/product opportunities

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