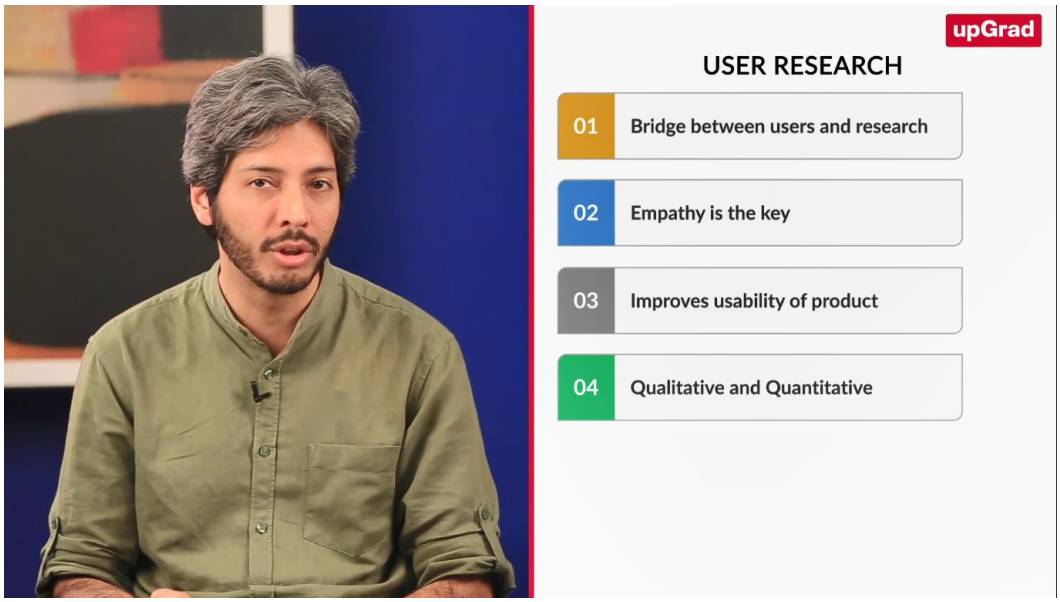
upGrad

Transcription

Introduction to User Research

When I design I work very hard to make the interface experience feel like there's a human on the other end and not a computer. This is what Alan Walter, the ex-VP of email marketing service MailChimp, had to say about product development. In order to do that, you need to understand these humans, who are going to use your product. This means you need to understand your users, and one way to do that is through user research.

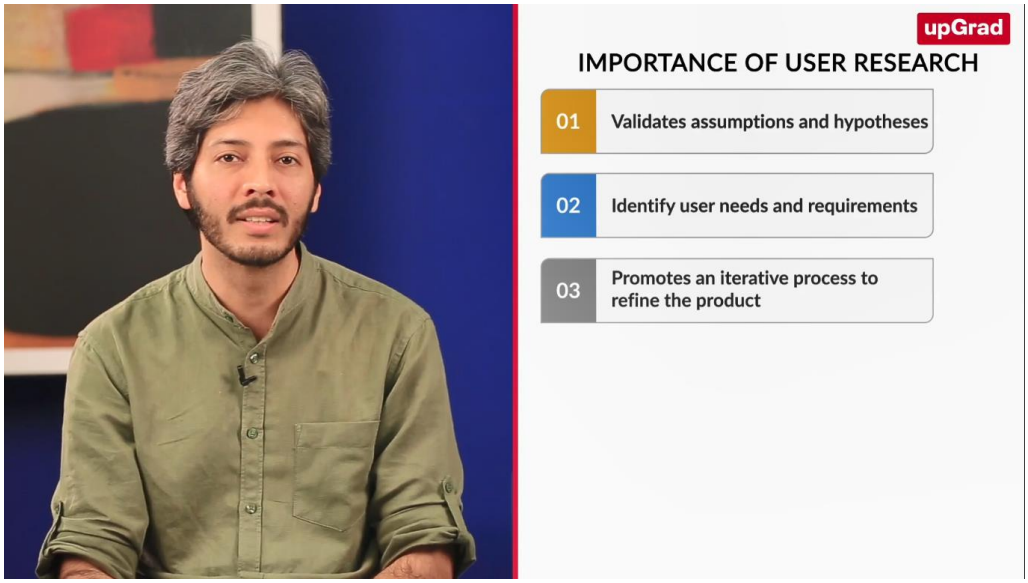
As a PM, it is important to understand what exactly is user research and why it is important to building products, and what is the methodology to conduct this type of research?



What is user research? It's a bridge between users and businesses. Simply put it is how you know that your product or service will actually work in the real world with real people. It helps you figure out what the interactions would be and how people interact with the product and what problems do they face while navigating through it.

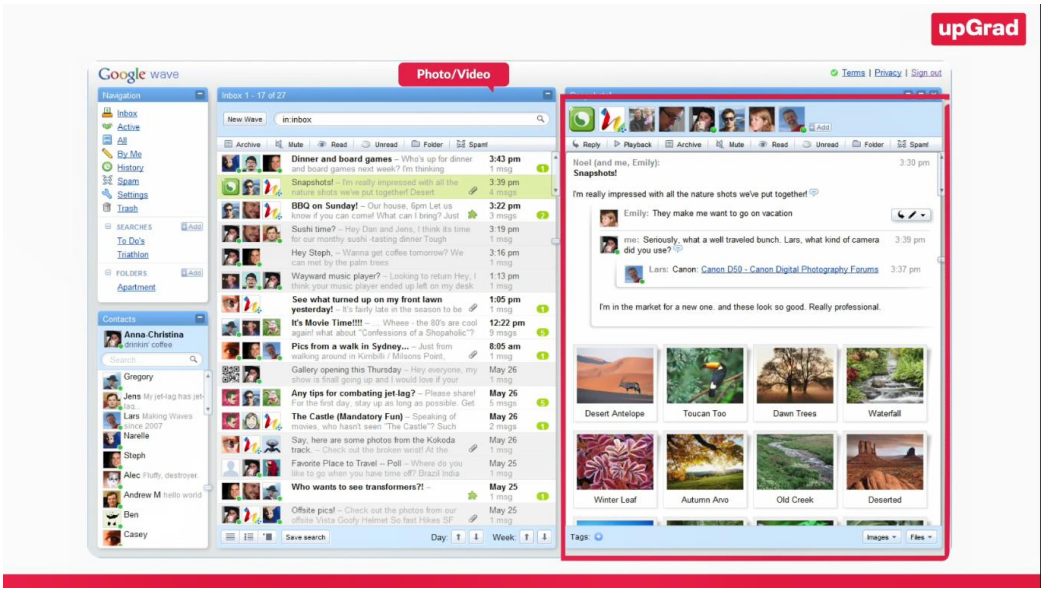
The key part here is the empathy. It's the focus on understanding the needs, the motivations and behaviour of users. You need to empathize with your user understand why they are behaving the way they are not to try to change the behaviour or influence it, but accommodate it within the product. It's where you will uncover or validate the user needs, which should form the basis of what you are trying to design.

It aims at improving the usability of products also by incorporating experimental and observational research methods. It can also be both qualitative and quantitative. The idea here is to figure out the needs of the user and not necessarily the wants of the user.



Why is user research important for PM. It does a couple of key things. It helps in validating your assumptions and hypotheses. You don't necessarily want to end up building a product which your users don't need or wouldn't use. Hence it becomes important to take into account your users perspective for validating the assumptions and hypotheses which you had while you were building the product.

It also helps in identifying users needs and requirements for the specific product. Data gathered through user research, puts confidence in design and ensures removal of assumptions from the design process. It also provides a great iterative process for product refinement. This is done through continuous user interaction. It also ensures that research as much as coding, designing or gathering requirements takes its intended place in the entire iterative product design and development process.



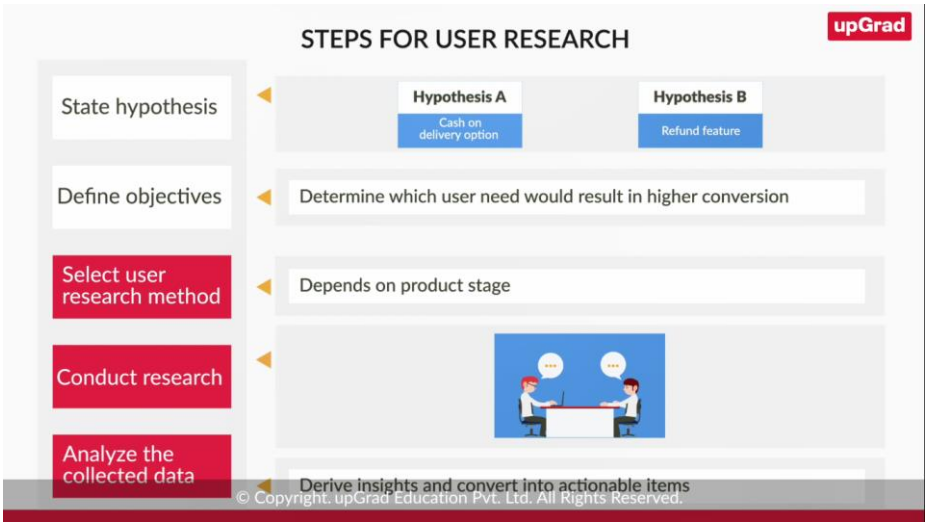
Let's look at some examples to understand the need of conducting user research. There have been products that clearly missed the bus in terms of what the user wanted and it's possible that the companies did do user research, but something was amiss either in the process or in the inferences that they made post the user research.

Google's wave is a great example. It was a mishmash of email, instant messaging, live editing, photo and video sharing. Perhaps a little too early before it's time. Wave was supposed to aggregate all these communication methods into a single browser-based application which business users would use to collaborate more effectively. One of the primary reasons why it failed was because the user interface was not intuitive. People were confused at a mishmash of feeds and communications, widgets wondering what exactly to do with all of them.

The other great example is from the 1980s, when coca-cola decided that it will introduce a new flavor called new coke. Now this was interesting because coke at this point was losing market share to Pepsi and a couple of other brands. What Coke went on to do was conduct a massive blind tasting session, which was essentially people were blindfolded and they were made to taste new coke, old coke and Pepsi. Uses clearly favoured new coke because it was sweeter and had higher sugar content. Coke essentially realized at the end of this massive user testing session, which was a blind tasting session of 200 thousand people that new coke was a winner for them.

They went out in the market and introduced new coke completely removing old coke and the users reacted really badly. As a result of this, coke massively lost their market share, because what they failed to understand was that, while people did like new coke, they didn't necessarily like new coke as opposed to old coke. They did not want old coke to disappear. This eventually led Coke to bring back old coke and labelled it classic coke, which also did not work, and eventually they just had to scrap new coke from the market and just have the old coke available to everyone as regular coca-cola.

Gauging how market will react to your product is really difficult. Thus, it becomes critical to test your hypothesis beforehand by understanding potential users for feedback. All the information gathered from this needs to be looked upon thoroughly. The typical startup dream is that you want to hit the bull's eye. You want to get it right, the very first time, but that's usually not the case. The usual case is that you end up missing the mark. User research is the method that you can use to kind of course correct in your process of building a great product and trying to hit the mark. So, every step of the way user research will get you back on track instead of you missing the mark.



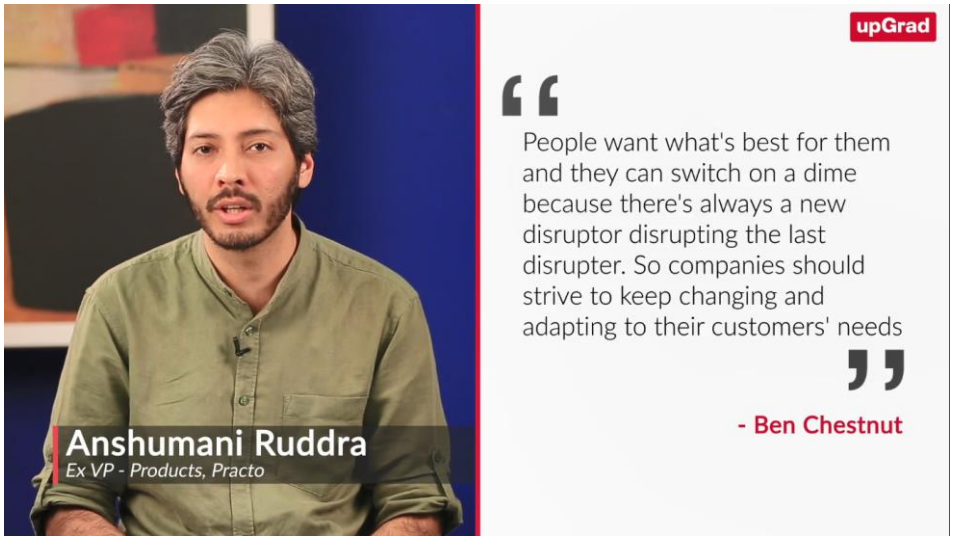
How user research is done? It's a five-step process. For example let's say you want to create an app through which people can buy furniture online. Your hypothesis essentially will be what are the assumptions which you want to validate. So continuing the example your hypothesis could be, people would switch from traditional touch and feel process of to online buying, if you could provide the option of cash-on-delivery. Be people would switch from traditional touch and field process to online buying if you could provide a refund feature in which they can return furniture in case they don't like it within 15 days of buying.

The objectives from such an exercise would lead you to believe what do you essentially want to achieve with this? Before building the product, you would want to get clarity on how people will feel about using such a product. So for conducting user research you will first define the objectives which you want to achieve through the study. A sample objective could be. You want to determine catering to which specific user needs will increase the conversion of people buying furniture online.

The third step would be methods these essentially are based on resources you have. You can select which methods would be suitable for you. Again taking the previous example of furniture, now you will have to choose a user research method. Since this is a new product development, you can validate your hypothesis by conducting surveys or interviews. You can learn about the best practices to conduct services and interviews in the upcoming session.

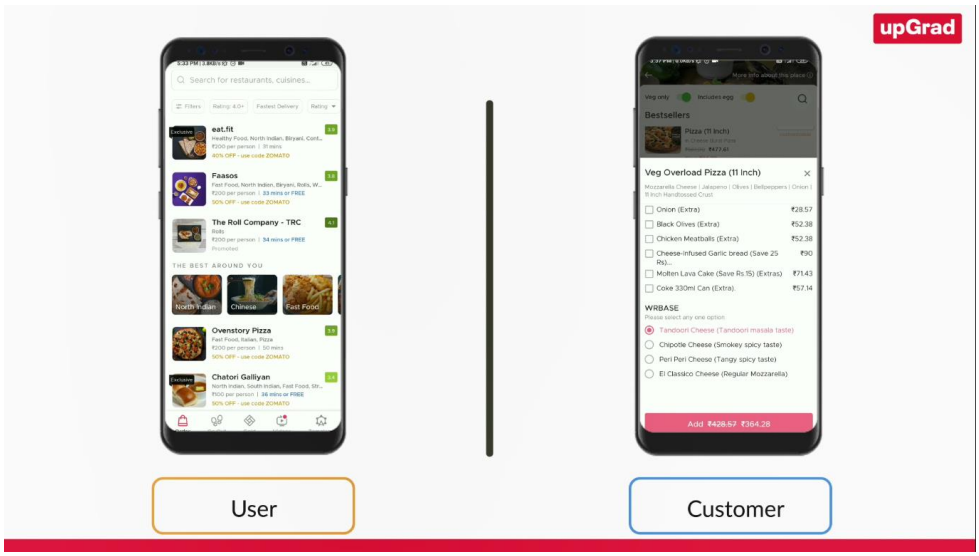
Fourth, step would be to actually conduct which is executing selected methods and gathering data. The last step would be synthesize. Analyzing collected data and deriving insights. First, two elements, which is the hypothesis and the objectives assist in forming questions for user research and the remaining three help in gathering data through selected tools and analyzing the same to derive useful insights.

People tend to use the term users and customers interchangeably. However, they actually differ in terms of how they interact with the product. You need to understand their mindset and their expectations. You should know whom to focus on while developing or improving your product. Let's go ahead and find out how users and customers are different from each other.

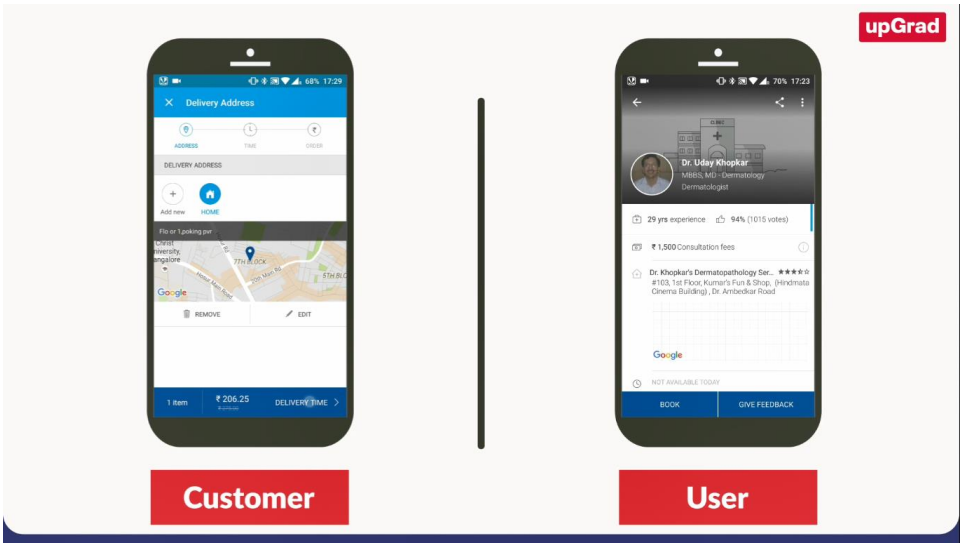


People want what's best for them and they can switch on a dime because there's always a new disruptor disrupting the last disrupter. So companies should strive to keep changing and adapting to their customers need. There's a great quote by Ben chestnut, co-founder and CEO of MailChimp. What is the difference between a user and a customer?

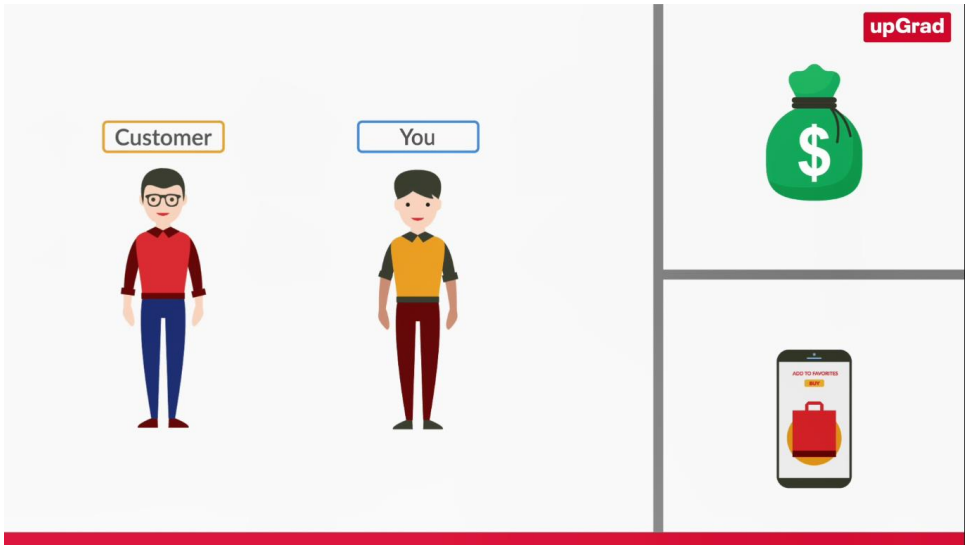
User is someone who uses your product. Users can have different roles such as he and she can be a producer of content like if you're writing an answer on medium, then you are a producer. Users can also be consumers. For example, when you are reading a post on medium, you are a consumer. On the other hand, customer is someone who actually pays for your product. For example, advertisers pay Google to display their ads, and hence they are customers for Google.



People who are searching on Google are users and the other example could be Zomato. Zomata is used for searching a local restaurant. Then the person who's searching is a user, whereas if someone orders food from Zomato, in the process paying Zomato, then they are a customer, because Zomato keeps a cut of the payment and a part of it goes to the restaurant.

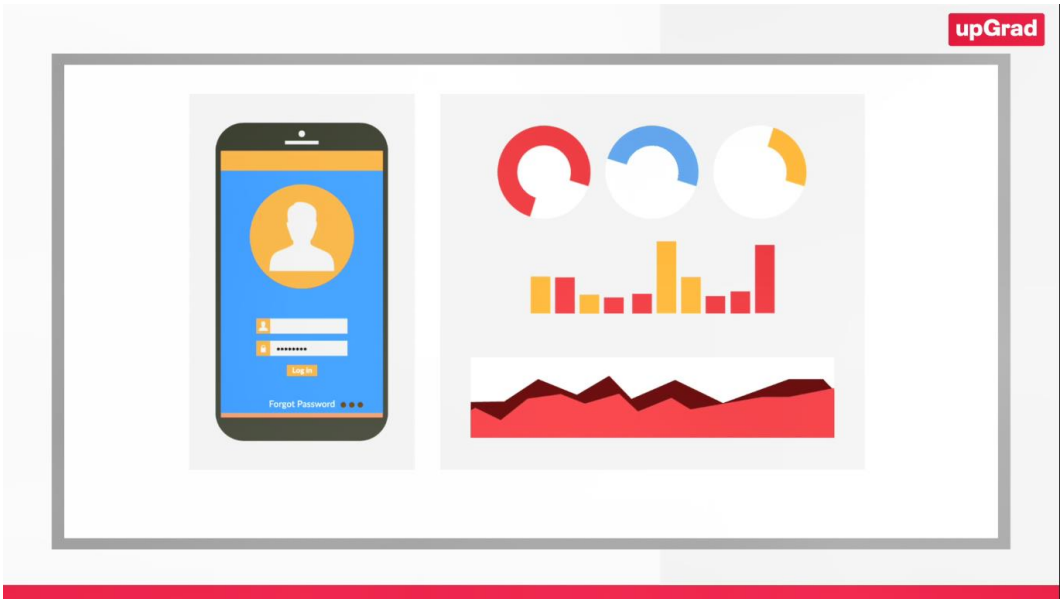


How users and customers differ for Practo. When you order medicines on the Practo app, you are a customer. When you just search for a doctor to find out their address and phone number on Practo.com, you are a user. Doctors and Clinics who purchase our clinic management software, Practoray and hence pay us are essentially our customers. Doctors and sometimes the front office staff, receptionist, etc who use this software are our users. If the usage is not high and the product is not useful, the customers will not pay for the product in the future and churn out.



So there are a lot of ways in which customers and users are similar, but there are some specific ways in which customers are different from users. The one big thing is that customers essentially help you figure out your roadmap. The point is that you need you spend a lot more time with people who are paying you money to build a product that you're building. You have to spend time with them. You have to essentially figure out whether their needs are actually being met or not.

What is it that they need for them to be able to solve the problem that they have, and this kind of essentially gives you the roadmap for your product. Of course, you also have to take a call in terms of what is good for all your customers, as opposed to what is good for a few customers. But the key part here is that the focus on customers is a lot higher.



As far as users are concerned, users typically come in at a much later stage, while you are trying to solve a very important need for them. You don't necessarily talk to them again and again and figure out what is working for them and what is not working. You typically do this when you have a live product and you look at usage statistics and usage numbers to figure out if your product is working or not.

People tend to use the term users and customers interchangeably. However, they actually differ in terms of how they interact with the product. You need to understand their mindset and their expectations. You should know whom to focus on while developing or improving your product. Let's go ahead and find out how users and customers are different from each other.

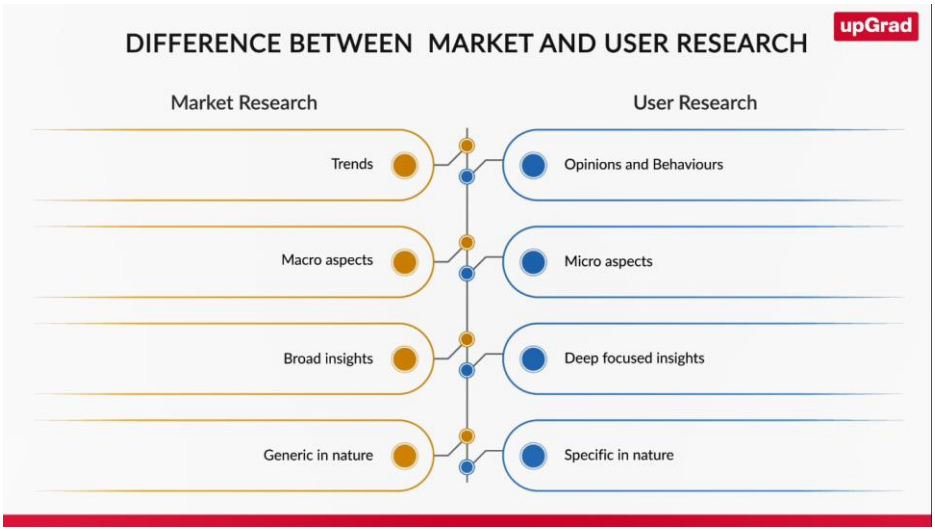
So one of the examples of the difference between a user and a customer would be that they use, the user is actually starts at top of the funnel and then eventually would go through all the steps and make the transaction and be a paying customer in that case, right. So and I think, as a product manager, it is basically important to look at all stages of the funnel addressing the users as well as the customers.

So one example that I can probably share at this stage that, again at clear trip we saw that, there were a lot of users who are coming and checking out to see the fair, the flight tickets or ticket prices, but they were not making a purchase immediately. So it's not like, as a PM, you want to not encourage that behaviour. You definitely want more and more users of your product, because eventually they will be the one who will funnel down in becoming the customer.

So what we did was we, we actually launched a feature where we realize that, if people need to come every day and check the same flight combination every day, for example, they were coming and checking a Bombay to New York flight for the same date on daily basis so we actually launched a feature, called as fair alerts wherein the user now does not even need to do that. He would get an email automatically, which would tell him the fare for the chosen date how is it changing, and this also builds in loyalty, because now the users know that you know what we are just making the life simpler. As a PM, you made their life simpler, he just doesn't, he just opened his mail and he knows that this is the price today and when the right time comes, he would actually make a purchase through you as well.

So as a product manager it's important that you understand the difference and the distinction between the two, between the users and customers and architect your product accordingly, that addresses both use cases.

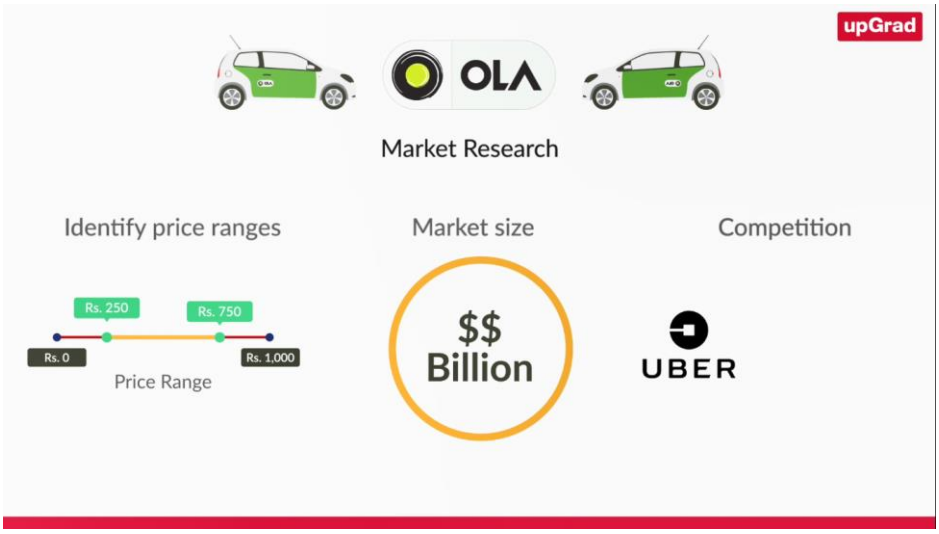
In the sessions covered so far, you learned how to conduct market research to understand the overall industry performance and the business environment you're operating in. You also learned what differentiates a user from a consumer. Let's now go ahead and understand the difference between market research and user research.



Although there's a lot of overlap between the two and both are important for your product to succeed. Let's just look at how these are different. Market research is about markets, about trends, what people say they will buy, the demographics or how the market can be segmented apart and analysed. Market research is done to understand what people want to buy. It focuses on what people say rather than what they do. So in short, market research is about the macro aspect of things.

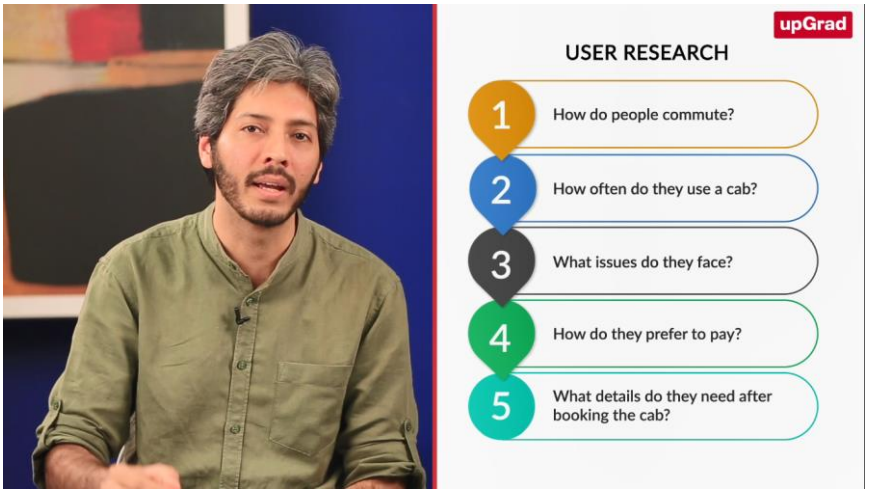
User research focuses on what people feel about using a product or service. What they do and where do they see a gap in their current way of functioning. It is more related to providing insights about how a solution should be designed. So in short, user research is more focused on specifics, more focused on the micro. Market research is crucial in providing broad business insights early on. User research is very specific and provides with deep focused insights for the product.

Market research tends to involve estimates on how big the sample is with broad generalizations of the sample. In the last example, we used broad definitions in sizing of sections such as innovators, early adopters, late majority and laggards. In user research we would ask questions to the problem space to a sample of current or potential users to delve deep into their needs and wants. One could say that through user research, one gets specific about the general observations from market research.

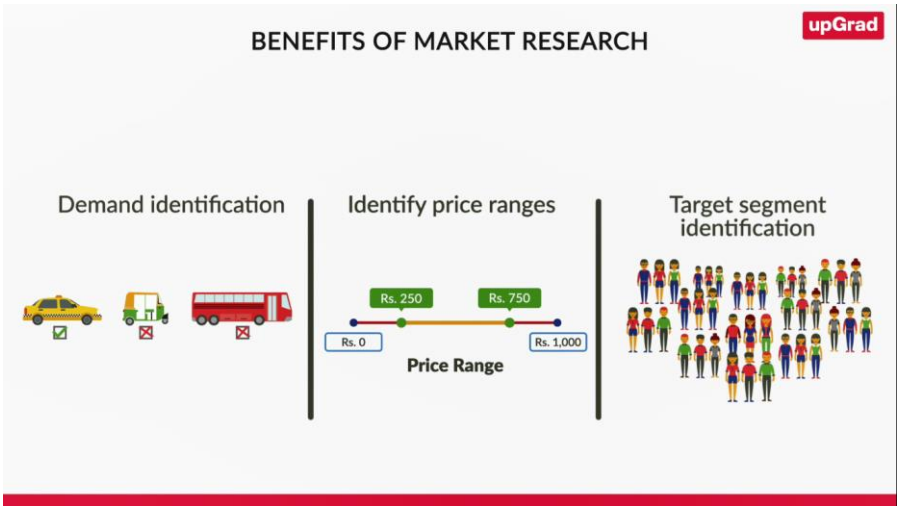


Now, let's look at how market research and user research are related to each other. Market research can be used to estimate initial market sizing, gathering insights about trends and product areas that people are interested in. Analyzing the competition and also for getting an idea about the possible pricing points. From that initial research, user experience research will dive into the focus area you want to understand more deeply. Let's take for example, the case of Ola. People might say that they want to book a cab online for commuting and market research will identify price ranges to launch this cab service in certain geographic regions.

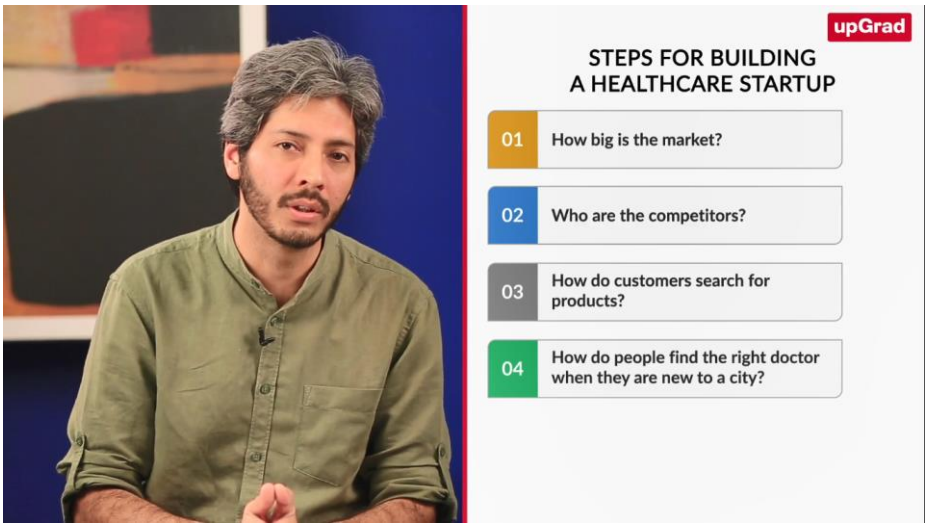
Market research will also give you an idea about how big that taxi market is and which players are already existing in that market, like Uber, Easy cabs, TabCab, etc.



Then user research takes this knowledge and conducts a deep dive study with smaller samples to understand what pain points people may face. You might ask questions like how do people commute? How often do they use cabs for commuting? What issues do they face, while traveling through cabs, like drivers took a longer route to come to them or the drivers misbehaved? How do they prefer to pay the fare? Do they use cash or do they use a mobile wallet? How comfortable are they to share a cab with a stranger? What details do they need, after booking a cab like driver, number, cab number, cab location, etc?



Market research may help identify a strong market for cab booking as opposed autos, buses, etc. It can show the company that certain price ranges could be more competitive than others and that certain demographic groups are worth targeting. User research can then provide insights into innovation, design and iterations of a particular product idea.



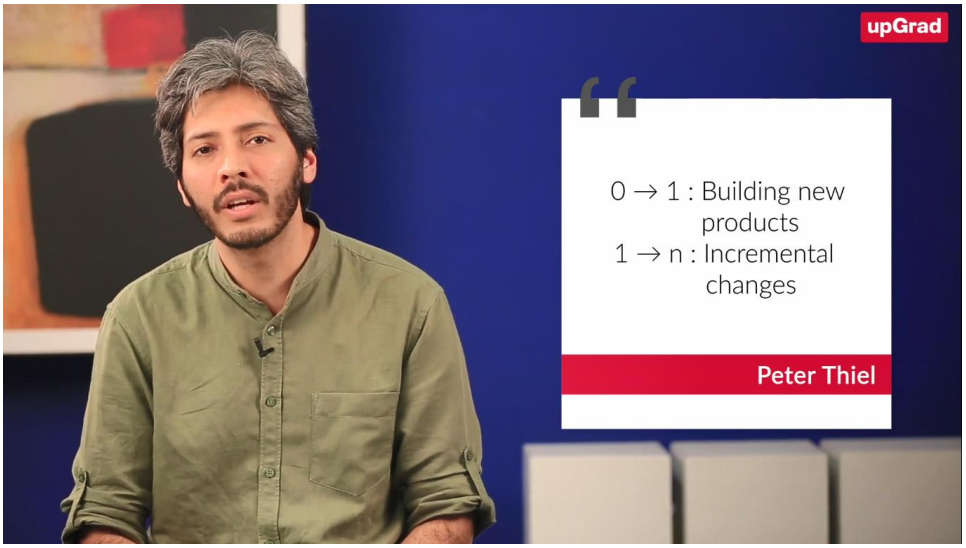
Suppose you were building a healthcare startup. Now your market research will actually help you figuring out how big the market opportunity is. You would first look at the market size. You would look at the existing healthcare setup, such as hospitals, insurance, doctors, clinics and see how many of them exist right. How is the pie currently distributed?

This helps you figure out what your potential competition is. This helps you figure out what the big pain points are. This helps you figure out where there is an actual revenue and business possibility.

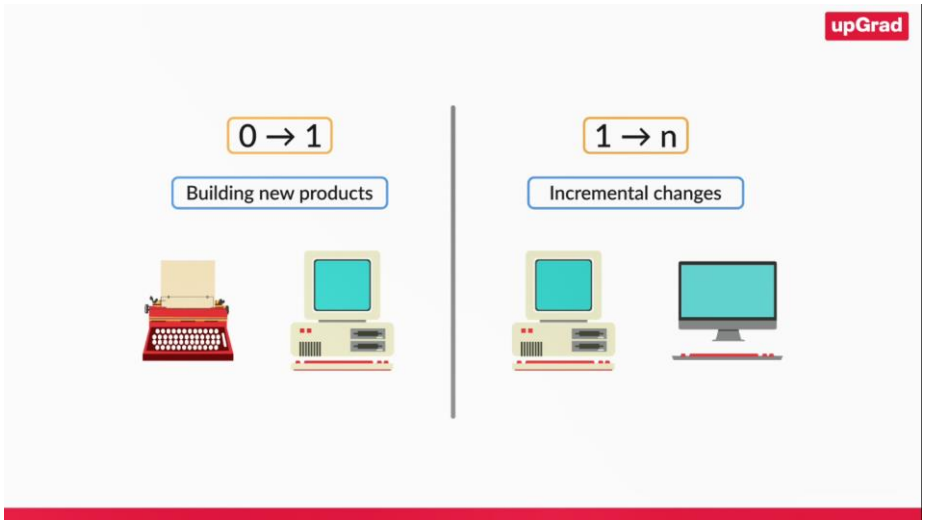
User research would help you figure out actually talking to customers and figuring out, what do they currently use when they have to visit a doctor? Do this search online? Does Google help them find the answers, or do they use old tried and tested methods by asking the parents, asking their family members and friends to point them in the right direction? What happens when people are new to a particular city? When they are new to a particular city where do they go to figure out, which is the right doctor for them? This would help you give insights, deeper insights into figuring out a health care product.

When you develop a product or feature, it is unlikely that the perfect version will go out there during release. The feature or product might undergo changes. The changes might be driven by user feedback, improvements in user experience and the nature of data that is collected. Is there a standard approach that every product manager should go through? I have seen how Uber collects user feedback on cancelling a cap? How did they go about doing that? If I were to launch a new product, should I follow a similar approach?

Developing a new product is actually quite different from adding features to an existing product, but how do you go about conducting research in both the cases? Let's understand this from our subject matter expert.



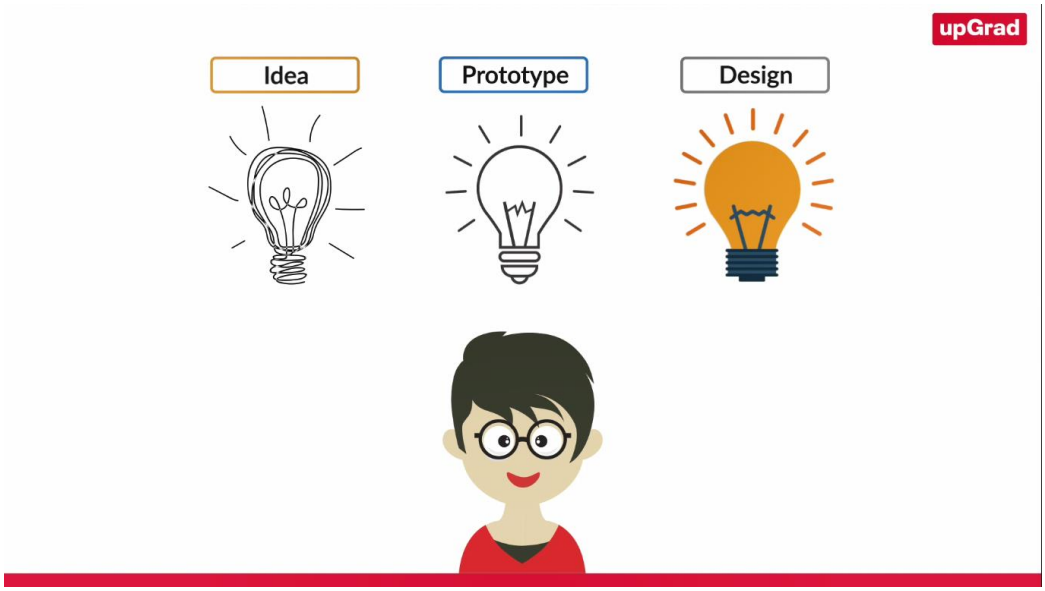
Let's first discuss what 0 to 1 means and what 1 to N means. According to Peter Thiel, co-founder of PayPal, 0 to 1 means doing radically new things and taking it to the first version. The phrase is used, in contrast to the term 1 to N, which means creating incremental improvements to what already exists.



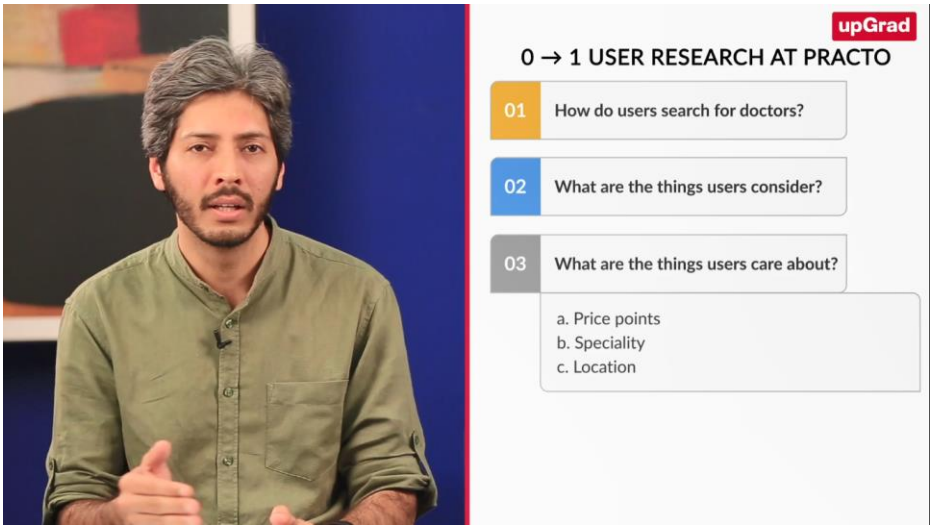
These terms can be understood by observing the transition from the typewriter to the computer word processor. Here you can think of this transition as 0 to 1. Since the introduction of computer word processors made typewriters obsolete. Many iterations off the computer word processor over the last few decades represent incremental improvement or as Peter Thiel likes to say, 1 to N. We can relate the same terminology to product development in which developing a new product or adding a completely new feature to an existing product means going from 0 to 1 and scaling your product will represent a journey from 1 to N.

A great example would be SpaceX. SpaceX is trying to do something very interesting. It's trying to bring down the cost of launching rockets regularly and for this it's trying to build rockets which are reusable. A rocket which puts its payload in space and then lands back on earth and can be reused to deploy more payloads.

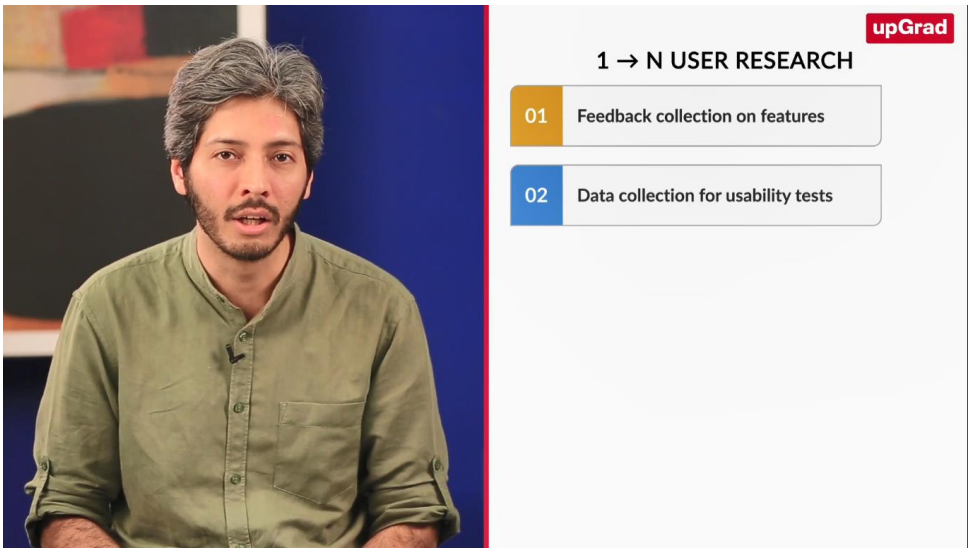
Now this is a zero to one problem. Improvements to that rocket, improvements to that rocket speed, the amount the weight of the payload that it can carry would be a 1 to N problem.



Next, let's discuss how user research is carried out for 0 to 1 products. User research for new products in discovery, phase involves validation of ideas, and the focus is more on getting feedback for these ideas. It covers multiple phases, starting from an idea moving to prototypes then to the final design stage. Let's now discuss how user research was carried out for 0 to 1 products at Practo.

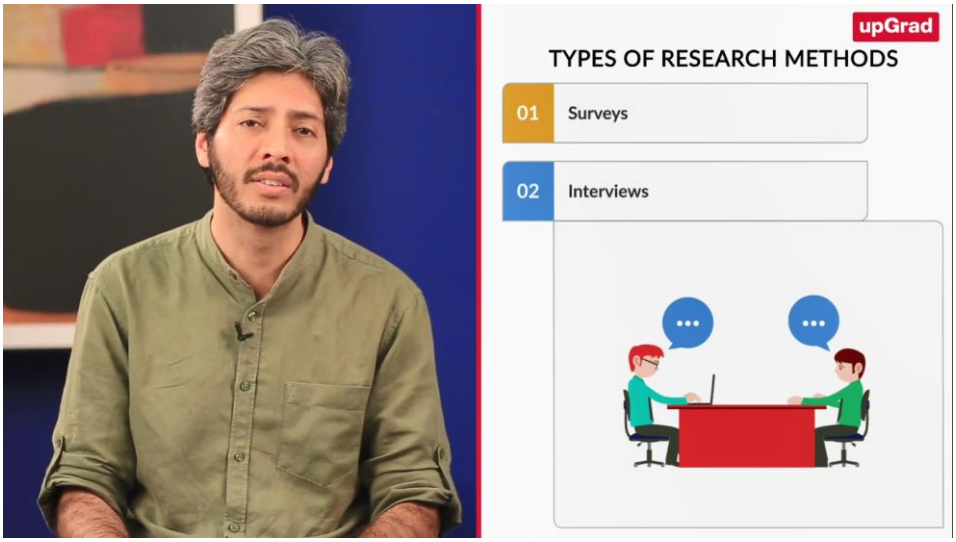


When we decided to build Practo.com, what we had to figure out was: how is it that users currently search for doctors? What are the things that are important for them to make a decision, which is, I need to go to this particular doctor? Do they care about the price points that the doctor offers? Do they care about the speciality of the doctor? Do they care about the location of the doctor? Figuring out answers to these helped us build a much better listing page and a much better doctor profile. This helped users figure out the right doctor for them given a specific problem.



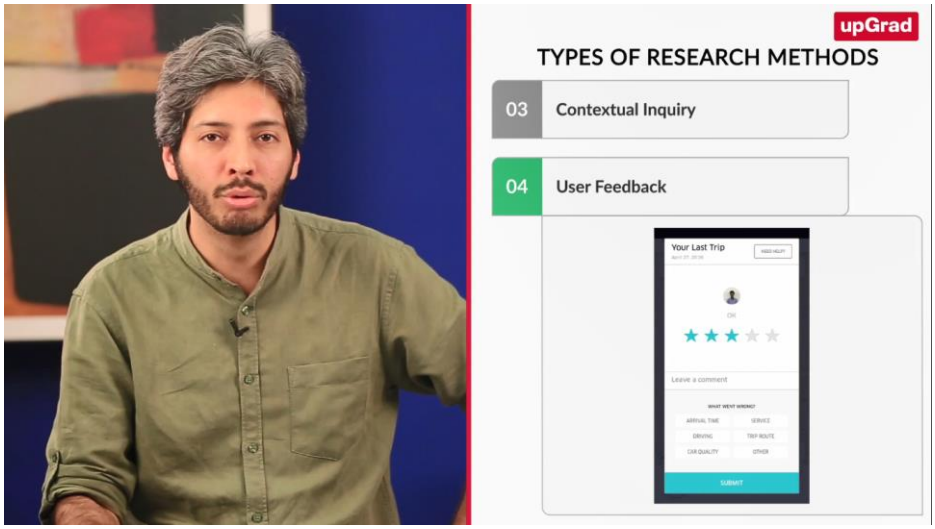
Now, let's focus on user research when it is carried out for 1 to N products. User research here will focus on getting feedback on features of the product. The products already exist and the focus is on adding or removing features. The focus here is on collecting analytical data through usability tests. For example at Practo, when we built out Practo.com, the original 0 to 1 problem involved figuring out what is it that the users need on the listings page and the profile page to help them make a decision, to help them figure out which doctor they want to go to. A 1 to N example would be improving the filters that are available on this page. 1 to N example would be figuring out whether they prefer doctors who have online booking available or who have online consultations available.

So now that you know how important user research is for understanding your users, you must be thinking How do I go about doing it? There are various methods to conduct user research, but how do you know when to use which? Let's take a look at some of the commonly used research methods which come in handy as a product manager.

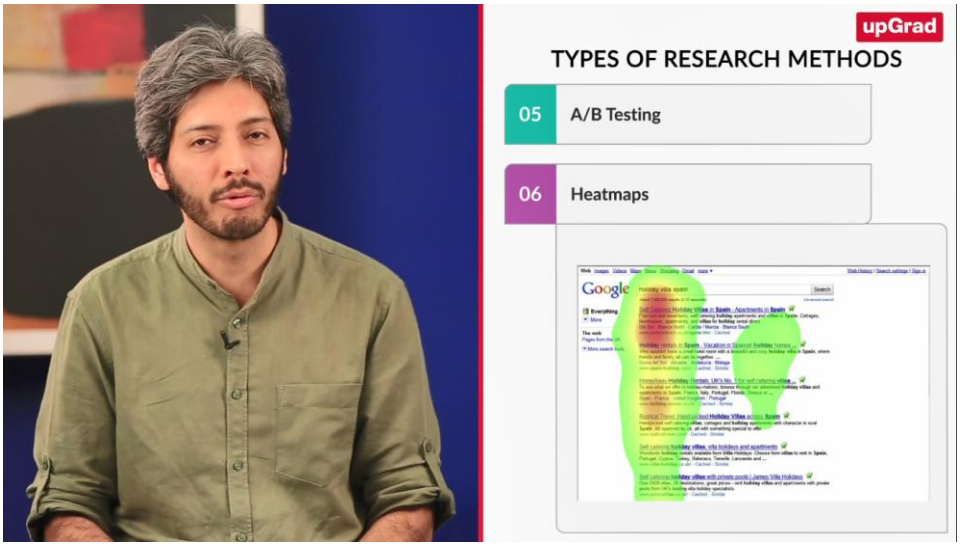


There are a wide variety of research methods, such as surveys, interviews, card sorting, focused groups, A/B testing, Heat maps, etc, which you can use for conducting user research. Hence it becomes important to know and understand the ones which are commonly used.

1. The first one is surveys. It consists of a series of questions. It is a quantitative method and is typically conducted on a large sample set.
2. The second one is interviews., it's a one-on-one discussion with a user, and it is great as a qualitative data gathering tool. It helps us figure out our users, attitudes, desires and experiences and is typically conducted on a small sample set.

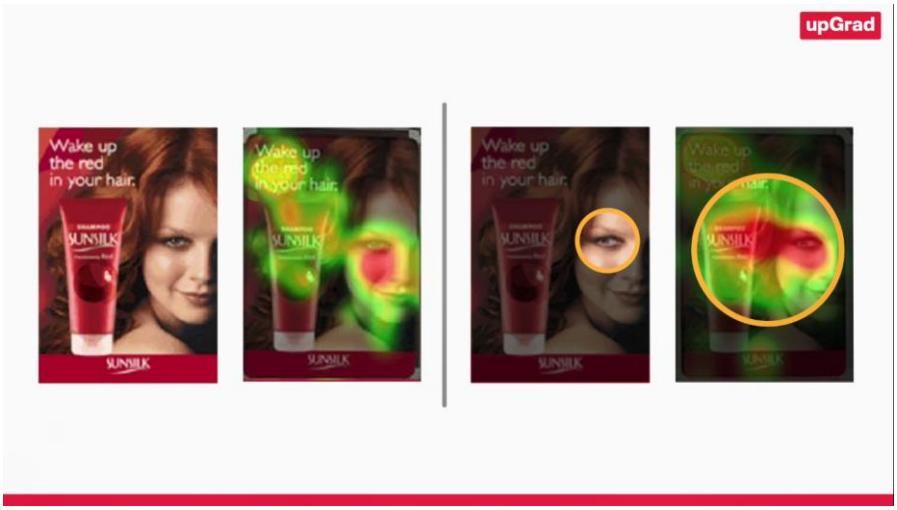


3. The third one is contextual inquiry. Interviewees are interviewed in their context when doing the tasks with as little interference from the interviewer as possible. You gather as much data from interviews as possible and analyze it after the interview.
4. The fourth is user feedback. User feedback is typically through a link or a button or a form or an email. An example is Net Promoter Score, which is a form of user feedback used to know if a user would recommend the product to others.



5. The fifth is A/B testing. A/B testing typically is used to compare two versions of a website or a webpage or app with each other. This is done to figure out which one is better. A/B testing is a quantitative method and it is used for making incremental changes to your website or app. It essentially allows you to compare two versions of a webpage or an app against each other to discover which one is better. The two versions here could be a simple headline or a button or could be a complete redesign of the page.

6. The last method is heat maps. Heat maps typically allow us to figure out which part of a particular webpage or app is being used, the most, which are the buttons which are clicked the most, which image is getting more viewership. Where essentially is the cursor moving, and this allows us to figure out whether a particular webpage is really working or not?

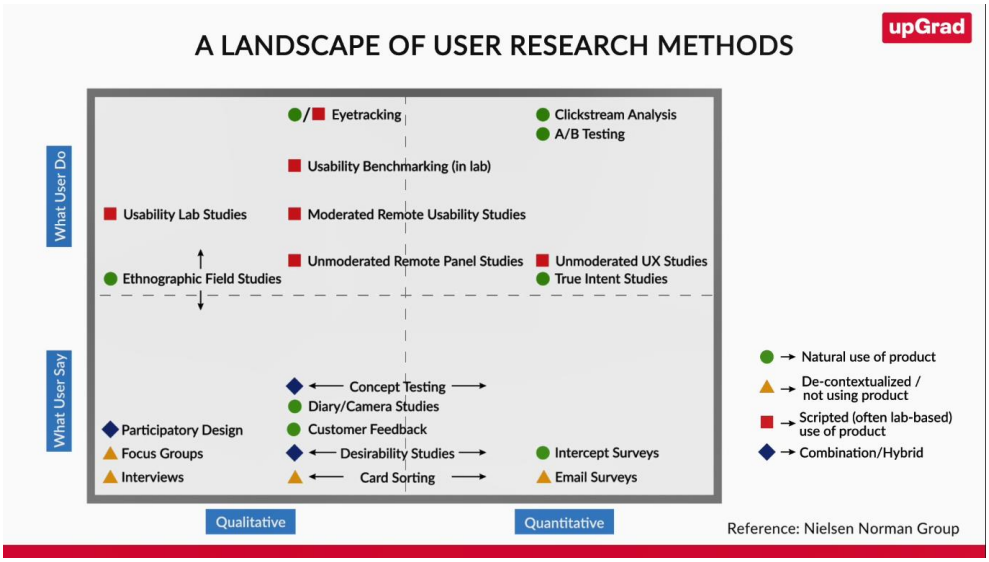


So here you see a great example of how heat maps can be used to study user behaviour. If you notice in the first example, the model is not looking at the product but is looking directly at the viewer. The heat map studies revealed that the viewers ended up looking at the girl at the model, but they never really looked at the product.

There's a minor change, a simple shift of her eye where she is actually looking at the product in the second image, and the heat map of that banner is completely different. You notice that people are not only noticing the model, but they are also noticing the product that she's looking at, which is the shampoo case in in this example. This kind of a study is very, very critical in understanding what users really care about, and heat maps can be very valuable. It can be a very valuable tool for this.

This session introduced you to common methods that are followed for conducting user research. These are used for at various stages of product development. You do not need to use all the methods and we would be studying the most popular and important ones in detail. Some of these, like usability testing, etc, require a prototype for testing, and these we would be covering later.

So now you know the plethora of choices available for conducting user research. You must be quite overwhelmed. You must be wondering whether you have to use all these methods in order to understand your users. After all, if you spend all the time conducting user research where will you find time to develop and launch the product. Well, that's true and that's why it is important as a PM to know which method needs to be used when. Then, you can select the method which most suits your needs.



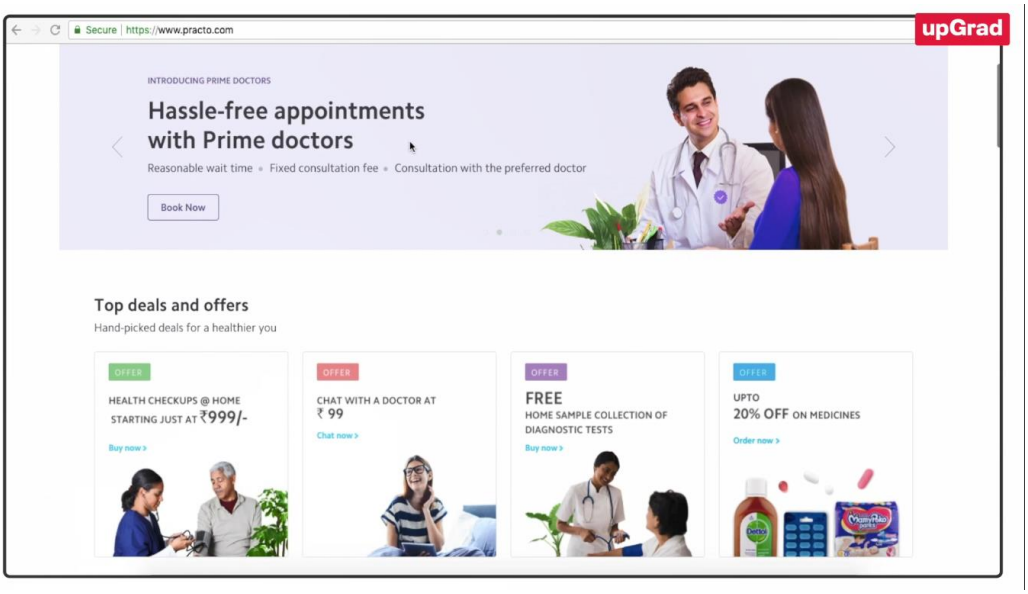
Now, how do you go about selecting a suitable method for user research? These methods can be chosen on the basis of what it is that you're looking for. Whether you want to understand what users say or what users do. Let's say you want to understand user beliefs and attitudes or what users say or think. Methods like surveys, interviews, focus groups can help you build empathy with your users and understand their beliefs and attitudes. This, for example, will help you gauge how the users perceive the utility of a product or a feature.

Now, let's say you want to understand what people do or how people are using your product. This is commonly known as the usability of a product in product management. For this we can use methods like AV testing, eye tracking. So in

eye tracking research, you can understand how users visually interact with interface designs. You can perform A/B testing to compare two versions of a website or an app and refine the same basis on the results.

User research methods can also be grouped on the basis of whether you are looking for qualitative data or quantitative data. Qualitative methods, like interviews, can be used to better understand why and how to solve part of the problem which the user is facing. On the other hand, quantitative methods would be best suited when you are looking for answers like how many and how much. An example would be surveys.

Some of these methods are advanced and used by hardcore user experience researchers. As a PM you will most likely use commonly used methods which are email surveys, interviews, customer feedback, A/B testing and contextual inquiry. We will be going into detail of each of these in the coming sessions.

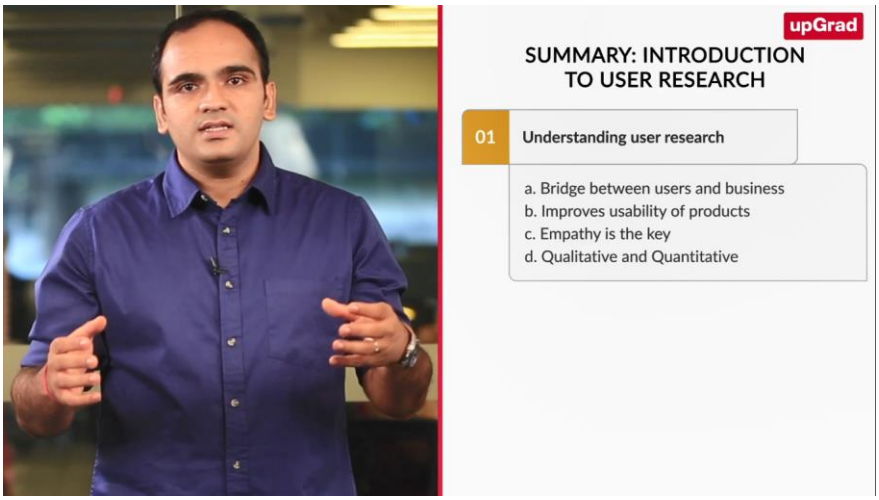


Now I'll talk about a couple of methods, we have used at Practo while trying to solve user problems. The first one is on practo.com, where we have a listings page, which shows different doctors in your location. On the left side of the page, we essentially have a bunch of filters which allow users to narrow down their search and find the right doctor for them.

With heat map testing, we were able to figure out which filters were most used and which were the least used. We also realize that, by changing the placement of some of these filters and bringing them into focus, we could help users find doctors more easily.

On the doctor side, we used usability studies with receptionist's are typical clinics, where we sat down with them when they were using our product for doing different things. For example, we realize that receptionists were finding it difficult to create a new patient account, so whenever a new user, a new patient, would walk into a doctor's clinic, the receptionist would create a patient account. Now the steps that they would use on the software, had a drop off after 2 or 3 steps, they weren't actually able to create the patient account, and sometimes they would just let go and move

on to the next step. A proper usability study helped us figure out essentially where these drop-off points were, what was it that was troubling them about the interface.

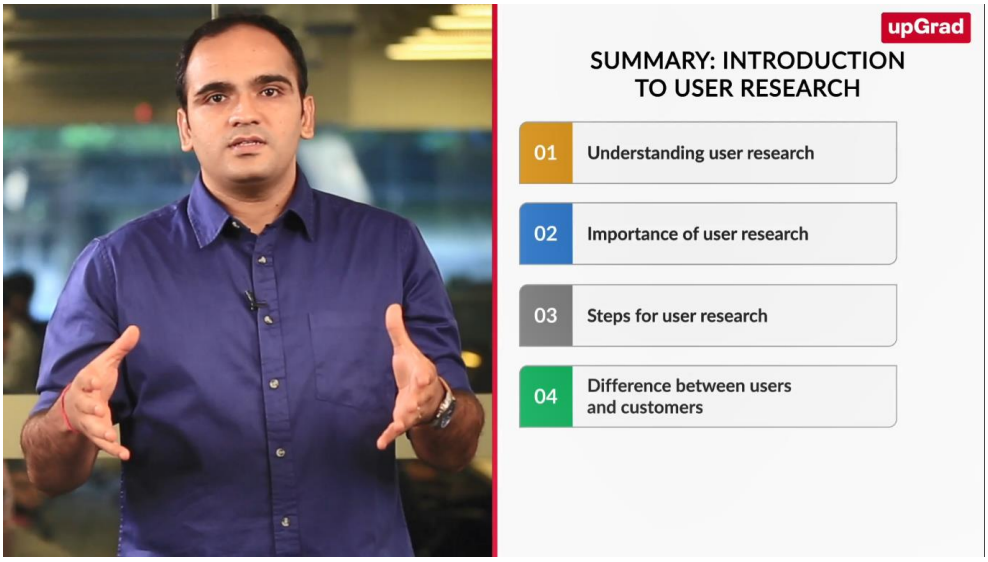


Wasn't that a great session on user research? Now I can't wait to go out there and find out what users think and do and I'm sure you feel the same. But before we do that, let's recap what you've learned in this session. We started by understanding what user research is. A bridge between your business and your users to help you improve the usability of your product. You have to use empathy to get qualitative and quantitative information about the needs, motivations and the behaviour of your users.

As a product manager, user research is important to you because it helps you validate assumptions and hypotheses. Identify user needs and requirements, and it provides a great iterative process for refinement of your product. You learned about the importance of good user research through two examples: Google Wave and New Coke. Both products fail due to lack of extensive user research or because of incorrect inferences.

Next, you looked at the five-step process of conducting user research:

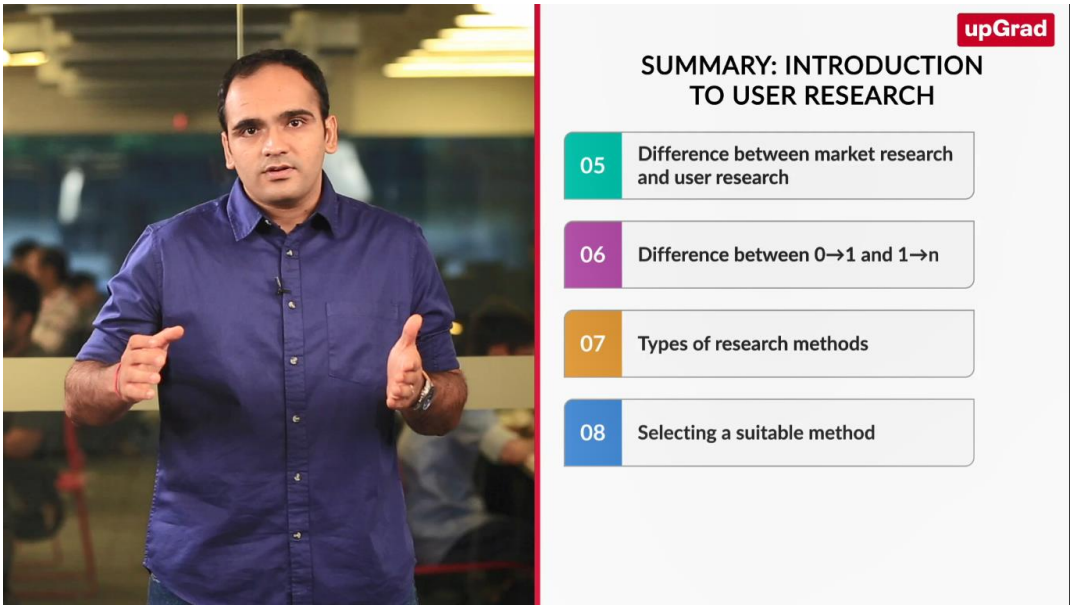
- Formulate a hypothesis
- Define your objectives
- Select the method for conducting user research
- Execute the method and conduct the research
- Analyze the data collected to derive insights



After this, you understood the difference between users and customers. A user is someone who uses your products while a customer is someone who actually pays for your product. We use the examples of Google, Zomato and a detailed example of Practo to understand this better.

Between user and the customer, it is the customer who helps you figure out the roadmap for your product. Next, you learned about the difference between market research and user research. Market research is all about trends, demographics and market segmentation. On the other hand, user research looks into the opinions and behaviours of users. What they do, what problems they face. Market research focuses on the macro. User research focuses on the micro.

After the differences you saw how market research and user research are related to each other through an example of Ola. Market research helps to identify demand, select a price range and identify a target audience. You can use this initial research as a spring board for your user research, where you study smaller samples to identify users pain points and motivations. User research helps you gather insights about design and product iterations. We discussed this process further through the example of building a healthcare startup.



Then you got an idea of difference between zero to one stage and one to n stage and how user research the first for both. In zero to one you understand the user needs in order to build the initial version of the product, whereas in 1 to N you iterate or improve the existing product or feature. The transition from typewriter to a computer word processor and an example of SpaceX helped you understand this concept. You also looked into how Practo conducts research for the 0 to 1 stage. It looks into how user searched for doctors and what factors they care about. For the 1 to n stage, it's more about feedback collection on features and data collection for usability tests.

Next, you learnt about the types of research methods, surveys, interviews, contextual inquiry, user feedback, A/B testing and heat maps. Lastly, you understood how to select a suitable research method. If you want to know what users say or think go for surveys, interviews and focus groups. On the contrary, if you want to know what your users do, A/B testing and eye tracking will be more useful.

We ended the session by looking at how Practo used heat maps and usability studies to improve its products. It was great having you for this session. In the next one will deep dive into the different methods of research, starting with surveys. I look forward to seeing you soon again.

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