Usability Engineering
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Module - 06
Lecture - 22
Requirement Analysis - III

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Welcome to module 6 lecture number 22, in this module which is Requirement Analysis III. We are going to discuss about synthesizing user research data; until now, we have discussed about various qualitative methods various quantitative methods to collect user data. User data means data which would tell you about your target audience.

So, your users your samples that you are collecting are representing your target audience. Now, the question here arises be it qualitative method be it quantitative method how do we synthesize that data, how do we analyze the data and present it in a way that is meaningful to the design team and why that is important?

That is important because remember we are not interacting with one user be it your qualitative study we are not interacting with one user we are interacting with many users. Probably in your qualitative study you might interact 10-15 people you might conduct interviews contextual inquiries with more than 10- 20 people and then if required if your study envisages.

So, you might also have to conduct a quantitative survey and those surveys might be recruiting huge many samples, huge many users say 30, 40, 50 or so. Now, how do you

combine insights from all these data how do you extract information from all these data and use it as you proceed towards conceptualizing a product or rather I should say identifying the specific requirement for your target audience.

Is not that a very serious question to ask? Because finally, using all these methods that we have discussed in requirement analysis phases 1, 2 and 3; it is of prime importance that we know how do we present this data and share a way through which the entire design team you would be working in a design team makes sense of the data and use it for developing the objectives or reaching the objectives.

So, we would be discussing about that today in this session and we will start that discussion with discussing about persona. Remember that the main objective of conducting user research be it contextual inquiry be it interview be it survey be it any other way is to identify the mental model of our user. And we represent those characteristics through a person a representative figure which we call as a persona we will discuss about that in detail right now.

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So, personas are fictitious they are specific, they are concrete representations of target users; remember these words personas are fictitious they are specific, concrete, representations of target users. So, the notion of personas was first created by Alan Cooper and was popularized in his book that he authored in 1999 named The Inmates Are Running The Asylum: Why High Tech Products Drive Us Crazy and How To Restore Sanity.

Now, personas put a face on the user personas put a face on the user and why it is important? Because you are not interviewing interacting with one person you are interacting with many and therefore, a face is important that would represent that many.

And therefore, when you put a face to those many with whom you have interacted it then becomes memorable, memorable for whom for the design team, for the design team who is working towards addressing the challenges and issues of the requirement that is being faced.

And then it becomes engaging and actionable image that serves as a design target that is what we have been discussing. So, the moment you put a face that represents your users it becomes a part of our system of the system which can be stored into our memory. So, the design team can now represent this is the phase for whom we are designing this is the person who represents our users.

And then it becomes easier for the designers for the design team to anticipate the personality of that face, the characteristics of that face, the lifestyle of that face because it is a face which they have to remember and design for. Now they have an objective now they are designing for this face that represents their users right. So, they convey information about users to the product team in a way that other artifacts cannot.

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What are the benefits of personas some of them we have already discussed. Personas make assumptions and knowledge about users explicit, creating a common language with which to talk about users meaningfully. See understand the situation the design team is a highly debated society.

You know I call it a society because you have people from various backgrounds you have people from the marketing team, you have people from the production team, you have people from the engineering team, from the stakeholders' team and the design team of course, working with towards a common goal. It is a; it is a highly debated society and each perspective of the team is put forward in order to visualize the requirement of the users.

Therefore, all the discussions that happens in order to correctly identify that this is the specific requirement that we are working towards each team provides their own point of view and this becomes an assumptive way. So, one team will say ok I feel this things are there and therefore, we must address that; the other team will say this is there and therefore, we must address it.

Each of them are making exemptions from this study now these exemptions are not out of the box first of all, these assumptions are from the study that these groups have conducted the marketing people might have conducted their own studies.

The production team or the engineering team or the development team might have their own insights based on the experience they have on working on projects and the design team of course, they have been we have been talking with user centeredness user centeredness so on and so forth.

And therefore, they would always be intrigued in talking to users getting their insights and putting for into the table. Now, all these are considered as assumptions until and unless a face is given to it a structured component is put forward across the entire team to say this is the person or this is the face that represents all the users that we are talking about and these are the qualities that we intend that we intend to address.

It then creates a common knowledge that is shared across all the team members right. So, personas allow you to focus on and design for a small set of specific users what not necessarily like you helping you make better decisions. I would like to elaborate on this statement why we said that focus on and design for a small set of specific users.

Remember the example that we have been talking about in the earlier modules that if you are going for conducting a study with 10 people the focus is to see what the majority pattern that you are getting. The frequencies that are grouped together that can be grouped together

so, here when we say small set of specific users we mean those major groups you know and we are focusing on those groups that share common theme and the which represent a small community.

So, personas engender interest and empathy towards users engaging your team in a way that other representations of user data cannot. See here the highlight of this section is the word empathy. We always you would always hear designers being talking about being empathic empathetic to be able to have empathy towards their customers towards their target audiences how do we ensure that we have empathy for our users.

One of the ways is to ensure that we know the role we get into the role rather than knowing we should get into the role-playing mode and how do you get into the role playing mode. If you represent the user's community your target audience that you have studied and if you represent those characteristics using a face using a fictitious character that this is the person these are the qualities these are the characteristics which represent my users.

And now what happens you dive deep into the role of that person in order to understand and appreciate his lifestyle, his characteristics, his frustrations that is what we call as empathizing. You get into the role get into the role of that fictitious person in order to design for him you are not actually designing for one person rather this fictitious person is representing your target audience.

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Now, personas make assumptions explicit this is something which I would like to draw your attention here that personas humanize vast and disparate data sources by capitalizing

on our ability to remember details about individual people. And in doing so, they provide a usable alternative to referring to the nebulous user.

In other words, personas do the job of creating a concrete focused, and stable definition of your audience that is what is the role of personas. They provide you with a stable definition of your audience you might have collected people from a 100 you might have collected data from 100 users and you might have seen so many variations, you might have seen so many characteristics you might have seen very unique situations as well.

But then is the focus of your entire study being to identify patterns or groups that emerged from that study and from the majority of those patterns you exercised your insight and you extracted those and created that persona. So, all those which were unique data were considered as noise and the majority of the patterns were extracted and the profile of your audience of your target audience is created.

That is what we call as persona and you as in a designer you consider that as the person for whom you are designing right this is what we meant by synthesizing user research data. So, consider about the situations where you were collecting demographics you were collecting their frustrations, you were collecting their motivations, you are collecting of the senses the themes that are getting generated from the transcriptions all of them are classified from the perspective of frequencies.

Remember in lecture number 19 we discussed about that the focus of going for quantitative ways is to identify that how many times these data or this theme emerged. So, we are focusing on frequencies that is how we create the majority of the patterns for a persona.

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Now, personas include details about the persons needs, it includes the details about the persons needs their concerns and their goals. So, these are the three most important factors that your persona should focus on needs, concerns and the goals.

So, needs would directly tell you about their requirements right, concerns would let you know about their frustrations, which needs to be acted upon and the goals, which would directly talk about their objectives. And apart from this other information which personas should include are age, gender, behaviors and occupation right.

So, a persona does not need to document every aspect of the imaginary individual's life no, its not required we it has to be focused only on the situation that is being debated on the situation that would later result in defining the brief or the requirement and lead to a concept design conceptualization.

It should rather focus on those characteristics that impact what is being designed. So, it is very very directed; persona is highly directed you just cannot start describing the life of a person oh this person is these looks like no every requirement, every characteristics that you explain that you discuss has a direct relationship with what is being designed.

That means the overall goal of your design if details do not match this then they are redundant right. So, we need the entire product team the entire design team members to empathize with users.

See now we are discussing about empathizing with users. If users are described in statistical terms for example, so many people 50 percent of the people bought these 50 of the people were of this age this many people in terms of frequencies and statistical terms.

The information simply does not lodge itself as deeply in team members because see role playing I told you about role playing right empathizing. These statistical numbers do not tell you about the experiential factors of that role these are only numbers right. Now when you have the persona present in front of you in terms of the characteristics; obviously, these statistical numbers have meaning because they will lead you to define that persona it is only then when the role-playing starts happening by the design team.

But putting those stats only in the board and telling that ok this is what they have and let us design for something will not work because the aspect of empathizing with our users will not happen and unless and until we feel that remember what will happen it will be a self centered design you will only design for those means considering yourself as an user you will not be able to envisage that I am designing for that role I am designing for that persona.

So, it's breaking this dilemma of whether you go for a self centered design or towards a user centered design by empathizing the role of the persona that is what we have been discussing all about.

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I have just showed you here a structure of a persona you can see I have put my image here. Now, it is a company name as an in company is investigator I have put a name a Rosa Cho content strategist location Seattle Washington and then all these statements that you see

have direct relationship to the goals and objectives of design these are not just that to look good or to fill up the entire sheet we have put it here.

I am looking to join the right company that challenges me and allows me to grow and develop my skills right. I create variety and types of industries and goals of each content project I work on I need to ensure I will not get bored. So, this persona is created towards looking for of a person who is looking for a job right.

Now, this is detail about the person Rosa does not believe in settling she will not settle for a job with a company that is not as innovative and cutting edge as she believes she deserves. She wants to get the most out of every professional experience and before moving to a new position Rosa investigates every angle of aligning herself with the company.

Now, these are some of the behavioral considerations of Rosa and these are expecting the sight experience to reflect the business culture and values interested in career opportunities within the organization that fit a goals, thoroughly compares multiple companies with similar opportunities is interested in the unique benefits of working at a company including cultural elements mentoring programs and continuing educational policies needs to be confident.

The company that has innovative products that will be interesting to work on and needs to know company that has reputable partners and customers right. Now, these are some of the frustrations of Rosa. Rosa thinks that too many companies have career sections that just talk about open positions, but not why she would actually want to work there would like to challenge herself and have a more stable job, but is comfortable as a freelancer and would not stop for just any job, right.

Some of the goals needs to see reasons why company's interesting has it own words had intense growth own big contracts wants to figure out how to get in touch with someone at the company to explore farther opportunities.

Some of the tasks that Rosa focuses on and does are learn about current customers and success stories, read press releases about recent big contract wins and other accolades read about culture benefits perks and the people that work their view job openings and apply.

Now, what do you see here, you see here that this persona does not talk about what this person likes to eat, it does not talk about what this person likes to buy in terms of buying apparels, it does not talk about what kind of gadgets it was. I see many of my students going into this kind of disarray content while writing a persona, no remember persona is always directed towards the goal of the design activity.

So, whatever your activity is it should confirm any details. So, what you see here the details that I have painstakingly read you would see all these details are directed towards the work style, career, his intentions, his motivations, what he is looking for, what he dislikes all in terms of the job that the person is looking for it does not have anything else apart from that now, that is what we call as a persona.

Now, for the design team this is the face and these are the qualities that they should focus on while designing a product they should not think about me, me as in the designer who is part of the team they should not think about that ok I am the designer and let me think what I can think of what I am interested in or what I like in.

No, that is not what the role goal is the goal is to empathize with my users and that can only be done when I have a face that represents my target audience I might have done a 100 user study, but those users are represented by this face these characteristics which have been dominant among those studies that I have done and therefore, this is an example of a good persona ok.

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Now, before we end to clarify some of the stuff is personas are not user groups now defining user groups or market segments is not the same as creating personas. So, when

discussing a broad category of users' ranges must be used in order to summarize attributes of the entire group these statistics are too impersonal and are difficult to keep in mind when designing.

In contrast a persona is a singular user derived from these data ranges and these are done to highlight specific details and important features of the group it thus creates a narrative that is much more digestible and memorable it has to be which in turn increases the likelihood of continued use throughout the design phase and beyond.

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Now, when to create personas, so, personas must be based on user research remember you cannot create a persona without conducting user research right. Now, and this is because in order to be all accurate and representative of actual users this term is so so important for us for the design community representative of actual users of a product.

Personas are made up people, but they should be made up based on information about real people made up people, but they should be made up based on information about real people. Imaginary-friend personas that you dream up without any basis in the real world may describe the users you hope to get, but will not reflect the way people actually are. Design for somebody who does not exist and you will have no customers.

Now, some of the guidelines for creating personas: So, to initiate the persona creation process start with identifying characteristics of users observed from user research activities. Group these attributes into clusters to begin forming clear characters that is what we have been discussing all about.

And if several seem too similar merge them together or eliminate any groups that appear that are less important to the business ones distinct roles emerge, add details to make the character more realistic, believable and memorable.

These are some of the guidelines that you can focus on while creating personas. Some of the common pieces of information to include are name age, gender and a photo there can be a tagline describing what they do in real life. Experience level in the area of your product or service context for how they would interact with your product.

Through choice or required by their job? How often would they use it? Goals and concerns when they perform relevant tasks: Speed, accuracy, thoroughness or any other needs that may factor into their usage and quotes to sum up the persona's attitude.

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Personas - Types

- There are 3 different ways that teams can create personas, depending on the research data in which they are rooted:
- **Proto personas**, meant to quickly align the team's existing assumptions about who their users are, but not based on (new) research
- **Qualitative personas**, based on small-sample qualitative research, such as interviews, usability tests, or field studies
- **Statistical personas**, where initial qualitative research informs a survey instrument that is used to gather a large sample size, and the personas emerge from statistical analysis

Now, ideally you know in many projects you would see this happening persona are 3 types there are 3 different ways that teams create personas the way through which they are been created the strategy of being created and it depends on the research data in which they are rooted in.

First proto personas these are meant to quickly align the teams existing assumptions. So, the team might have done past studies or their experience and they know some of those qualities characteristics and these are assumptions. So, they use those existing assumptions about who their users are, but these are not based on research for that particular project these are based on their past experiences.

Qualitative personas based on small-scale sample qualitative research, such as interviews, usability tests or field studies these are all qualitative personas and then we have statistical personas now statistical personas where initial qualitative research informs a survey instrument that is used to gather a large sample size, and the personas emerge from statistical analysis these are some of the different persona types based on the data that are used to create them.