

Getting the Most Out of Personas for Product Usability Enhancements

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1 Background of Personas and Its Challenge in Driving Usability Improvements

In User-Centered Design, there is always the need to precisely define the user attributes, so that the product can be designed based on the patterns of these attributes. The methods of user definitions include quantitative segmentation analysis, as well as qualitative research on the patterns of user behaviors. Because these attributes are often complicated and abstract, researchers may have difficulty communicating these patterns to other team members.

The concept of creating personas came into play as one solution to the communication problem above. One typical definition of persona (from usability.com) is “a description of a specific person who is a target user of a system being designed, providing demographic information, needs, preferences, biographical information, and a photo or illustration”. Multiple personas are often developed for various stages of design to represent the spectrum of the target audience. User scenarios often use personas to represent the subjects who will interact with the system being designed.

User research practitioners have developed processes and practices in the area of personas over several years (Cooper 1999, Grudin, and Pruitt, 2002, Pruitt and Adlin, 2006). This method has also been applied to broader research areas, such as needs analysis, task analysis, and market research. With the aid of personas, many user researchers and product stakeholders have been able to communicate user needs and behaviors more effectively.

Despite of broad use of personas to support many decision making process in companies, various skeptics remain (Chapman and Milham: 2006). Some of the common skepticisms include:

- Not fully believing in the value of personas.
- Not knowing how to develop valid personas.
- Challenges aggregating knowledge across multiple user studies to build personas.
- Not knowing how to make use of personas after they are developed.
- Challenges of evangelizing research findings to non-research organizations.

The PayPal User Research team developed a set of personas for its target audience over a series of collaborations. The personas have been communicated to entire organizations to help support their decision making processes. Personas have also provided a solid starting ground for several other research methods.

2 Process of Creating Personas (Identifying and Prioritizing Attributes)

Personas need to be based on concrete qualitative and quantitative user research. The PayPal User Research team started with a clear goal, a phased methodology, and defined team members and roles for creating their personas. Each stage was documented and reviewed with management throughout the process.

The first step was to aggregate all existing knowledge using data and research reports from previous user research, market research and business unit efforts. The core team included several researchers who spent hours with actual users from the core user segments. The core team possessed a wide range of domain and user segment knowledge. Periodic reviews with cross-functional team members including marketing and business units proved valuable.

Tip: Start with clearly defined goals and a cross functional team.

Tip: Aggregate existing knowledge and research reports before starting the Persona development process.

The second step included defining key attributes (or “variables”) that were based on existing research. Variables were defined as key attributes that defined our user population. One example of a variable in the PayPal Merchant Services business would be ‘annual online revenue’. Each variable has some sort of ‘scale’. For the above example the scale is: Annual Online Review ‘Less than 100K, 100K to 250K, 250K to 1 Million, 1 to 5 million, Greater than 5 million’.

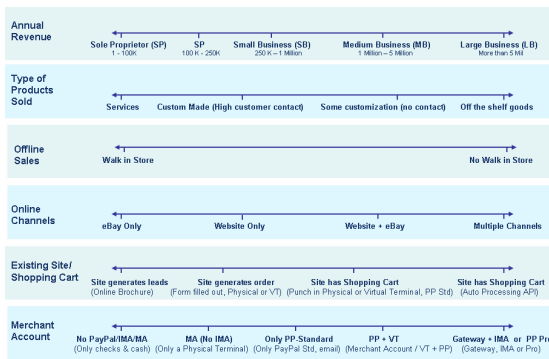


Fig. 1. Key variables, each with a scale

At PayPal we have used several of these variables for previous participant recruiting for different type of research. We already had a great deal of domain knowledge when we started this project. We had several hypotheses, many of which had been validated during previous field visits, usability tests and focus groups.

Tip: Start with domain and user segment knowledge derived from research.

The next step included a collaborative exercise using a large room with big walls, easel pads, and different color pens. This exercise included defining all ‘key’

variables based on existing qualitative and quantitative research. Each variable was written down and its scale discussed. We decided to use about 35 variables. There were many other variables but not all were deemed as 'key'. For example, 'number of children' could have been an attribute but it was not deemed as a 'key' variable for our user segment(s). Of course our personas might or might not have children, but that was not a major contributing factor that defined how they would use PayPal to receive payments as part of running their business.

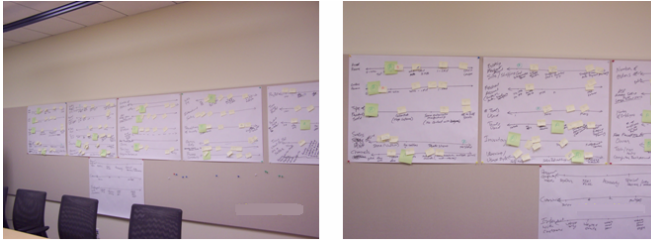


Fig. 2. Variables and manual clustering exercise

Tip: Use easel pads and a big wall or a very large white board.

Once we had all key variables defined we used Post-it ® notes to plot participants we had visited or interviewed. We developed hypotheses and started creating manual clusters for some of those key variables. During this 'manual clustering' session, Post it notes let us be flexible because we could easily move them around.

Out of this manual clustering exercise Personas were born. Then the next step included defining supporting attributes, personalizing personas, assigning names, business details, quotes from actual merchant visits and several other details.

Tip: Do not start the project thinking you will define 'x' number of personas. Let the clustering define how many personas you will have.

The next step included validating the personas. At PayPal we invite participants regularly for different types of research for various projects. This was a great opportunity to validate our personas. For each participant, the researcher would use a standard set of questions to get information on all persona variables. This process helped us validate our persona set.

As part of the project, we decided to document personas in different formats for different types of consumption. In the business world there are always competing things that need your attention. There is always a need to document and present your work in smaller bits which are easy to consume, get people interested and then provide them detailed versions.

We created the following documents:

- Brochures (One page brochures)
- Foundation Document (Word document with all details)
- Posters (Large posters for hallways, kitchen areas)
- Presentation (PowerPoint deck for presentation)
- Personas Intranet Site

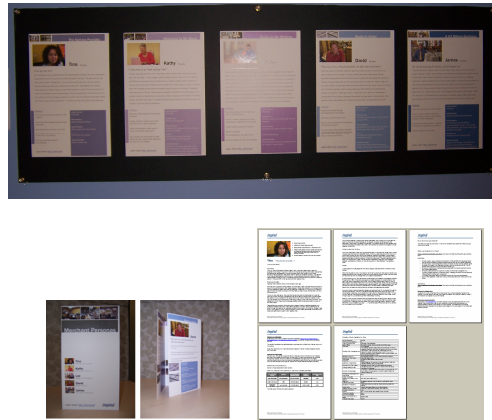


Fig. 3. Persona documents and presentations

Tip: Brochures were a big hit. They are widely used because they are easy to carry and handle.

The Brochure (single 14x8 inch folded page) was a big hit because they described all personas on one page which was easy to carry and handle. We see team members keep these on their desks and carry them to meetings. The Brochure defines all personas on one page front and back, has photos, name, and key attributes; has some description and defines key differentiating variables.

Posters (several 11x17 inch paper) printed on large glossy paper are used to attract attention and as marketing material. We see employees sipping coffee and reading details of personas.

For anyone interested in using details of the personas we developed a detailed ‘foundation document’. This foundation document included details of each persona, a day in their life, key tasks, tools used to perform these tasks among other things. We also have key usage scenarios, perceptions and future feature enhancement sections for everyone to contribute to. The foundation document includes key market research segment based information, details of all variables and ways to find more information.

The Personas intranet site helped us communicate and deliver all documents to a very large audience.

Creating personas which are based on research is only a part of building successful personas. The key is to involve teams during its development, review with key stakeholders throughout its process and launch with smaller teams (beta release). Personas are successful only if they are used by different teams in meaningful ways.

3 Using Persona in Design Iterations and Usability Evaluations

Once personas were defined they were released to a group of UI designers and a single marketing team to get early feedback and see how they would use Personas. This served as a ‘beta’ release, helping us with further refinements, understanding

how other teams might actually use it. It helped us develop some ‘success case studies’ of answer other teams questions on ‘how to use personas’.

Tip: Have a ‘beta release’ and develop ‘success case studies’ before releasing to a wider audience.

Personas have been widely used by PayPal teams. Personas are being used to define user needs, communicate user wants, develop scenarios and storyboards, create mood boards for visual styles, define page level content requirements as well as recruit participants for research.

Some design teams have used Personas to present their designs during executive reviews. They have used a persona to narrate existing pain points and then explain how this persona will be using the new product and its user interface. People ‘get it’ when there is a real person (persona), with a real problem and a product that solves that unmet need.

User Research teams use personas to achieve consistencies across studies and defining a ‘user’ for recruiting participants. Personas help create meaningful ‘tasks’ which are representative of each persona. Research teams continue to validate user behavior using on going research.

4 Communicating Persona to the Business

The personas are of little value if they were not effectively communicated to various organizations throughout the company. To maximize the benefits of personas, the User Research team made significant efforts to evangelize the deliverables of the personas.

First of all, the User Research team presented not only the results of the personas, but also the rationales, and example of application of the results in different areas. Through these presentations, the audience was able to relate their projects with the personas, and thus convinced by its value. After these presentations, they were generally motivated to use it in their decision-making process. The business owners also helped evangelize this research by exhibit posters and distribute the brochures in their respective organizations.

Secondly, the User Research team also used one of the on-going projects (bulk shipping) to test the real use of the personas. This exercise provided a comprehensive show case for the actual use of personas to the business. Also, it provided many interest insights to enrich the understanding of each persona.

5 Learning / Next Steps

After the personas were completed, the User Research team found that not all the personas receive the same level of attention. Personas representing larger business values generally received more interests, and thus were discussed far more extensively than the other personas. So we learned that a persona valuation is a necessary step of the process. Highly important personas often need to be created based on more extensive research.

We also found that the user segmentation research which Market research team conducted was very relevant to the persona research. Although user segmentation study and persona research yielded different user classifications, the concepts actually converge very well. These different classifications looked at user groups from different angles, and thus can be used for different purposes.

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