



Project Based Internship

User Goals

Using Task Analysis for understanding users goals and flow

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Task Analysis

Task analysis is the process of learning about ordinary users by observing them in action to understand in detail how they perform their tasks and achieve their intended goals. Task analysis helps identify the tasks that your website and applications must support and can also help you refine or re-define your site's navigation or search by determining the appropriate content scope.

Purpose of Task Analysis

In their book *User and Task Analysis for Interface Design*, JoAnn Hackos and Janice Redish note that performing a task analysis helps you understand:

- What your users' goals are; what they are trying to achieve
- What users actually do to achieve those goals
- What experiences (personal, social, and cultural) users bring to the tasks
- How users are influenced by their physical environment
- How users' previous knowledge and experience influence:
- How they think about their work
- The workflow they follow to perform their tasks

When to Perform a Task Analysis

It's important to perform a task analysis early in your process, in particular prior to design work. Task analysis helps support several other aspects of the user-centered design process, including:

- Website requirements gathering
- Developing your content strategy and site structure

- Wireframing and Prototyping
- Performing usability testing

Types of Task Analysis

There are several types of task analysis but among the most common techniques used are:

- Cognitive Task Analysis is focused on understanding tasks that require decision-making, problem-solving, memory, attention and judgment.
- Hierarchical Task Analysis is focused on decomposing high-level task subtasks.

How to Conduct a Task Analysis

Your task analysis may have several levels of inquiry, from general to very specific. In addition to market research, competitive analysis, and web metrics analysis, you can identify top tasks through various user research techniques. UXPA's Usability Body of Knowledge Site exit disclaimer breaks down the process for decomposing a high-level task into the following steps:

- Identify the task to be analyzed.
- Break this high-level task down into 4 to 8 subtasks. The subtask should be specified in terms of objectives and, between them, should cover the whole area of interest.
- Draw a layered task diagram of each subtasks ensuring that it is complete
- Produce a written account as well as the decomposition diagram.

- Present the analysis to someone else who has not been involved in the decomposition but who knows the tasks well enough to check for consistency

It's important to note that you need to decide to what level of detail you are going to decompose subtasks so that you can ensure that you are consistent across the board.

Examples

At a bare minimum to identify tasks, you can simply ask users what overall tasks they are trying to accomplish or how they currently accomplish the task.

What overall tasks are users trying to accomplish on our website?

- Trying to find a nursing home near you for an elderly relative.
- Trying to get information about options for treatment for skin cancer.
- Trying to sign up to receive an email notice when a payment is due.

How are users currently completing the task? People are completing that task using:

- Using a search engine
- Navigating through your site
- Using another site

User Goals

What are user goals?

User Goals are descriptions of end states that users want to reach. Importantly, user goals should refer to real-world end states — they are not

confined within the scope of the website. Example user goals could be getting into college, learning to bake cookies, or becoming a licensed driver.

Web sites and applications are most useful when they are designed with an understanding of the user's (and site creator's) larger context. A website that makes all of its content findable and all of its interactions intuitive may be usable, but it won't be useful unless it is relevant to an actual goal a user has.

Mapping a user's journey toward meeting their goal, including steps taken before and after using a website or application, can be helpful to generate insight.

Designers and site owners should understand user goals before any design or development occurs. One of the most substantial risks to a development project is building the wrong product. Understanding user goals mitigates that risk.

Eliciting User Goals

A variety of methods exist for eliciting user goals, each with strengths or drawbacks.

Asking project stakeholders (people who are not end users but who nevertheless are invested in the project's success) is not an optimal way of finding user goals. Stakeholders — even ones that interact with users directly — often have goals that are different from and even in tension with users'. So, it's best to seek out other, objective sources. Stakeholders' perspectives are important for the project, but they should not be considered a definitive source of user goals.

Asking users themselves, such as through user interviews, focus groups, or surveys, can be a better way of discovering user interviews, but they are not perfect. When directly asked, users may not fully understand their own goals, or may feel pressured to give what they think is the “correct” answer. In focus groups, participants may be afraid to speak up outside of a consensus. In all cases, it can be difficult to recruit participants. Interviews can be most valuable if the interviewer is skilled at digging past a user’s first answers.

User Flow

What is user flow?

User flow is the path taken by a prototypical user on a website or app to complete a task. The user flow takes them from their entry point through a set of steps towards a successful outcome and final action, such as purchasing a product.

The role of user flow in web and app design

The user flow is the basis for content requirements on webpages or app screens. Beginning with an understanding of user needs helps the product team build a user flow and experience that is designed to meet those needs.

For each user flow, the questions you need to consider are:

- What is the user trying to accomplish?
- What is important to the user and what will give them confidence to continue?
- What additional information will the user need to accomplish the task?
- What are the user’s hesitations or barriers to accomplishing the task?

The answers to those questions will inform how you design the pages, and determine what content and navigational links to include. If a user's primary goal is to browse various items, your page or screen will offer a different design and functionality than it would have if their primary goal is to purchase a product and move on.

Examples of user flows

User flows can take many different forms, depending on the type of website or app you are building. For example, for an ecommerce site, a typical user flow might look like the following:

- The user starts on the homepage
- From the homepage the user clicks onto a category page
- From the category page the user clicks on a product
- From the product page the user adds the item to the cart
- From the shopping cart the user checks out
- From the checkout screen the user completes the purchase

Of course, the above is a very simplified example. In the real world, users can take many different paths to purchase. For example, in the scenario above, the user could go back to the category page to view more products instead of going directly to the shopping cart. Or they could use search to navigate the site instead of clicking through the site hierarchy. Or the user could come in from a different page other than the homepage.

Because there are many different paths that users can take, user flows are often modeled as flow charts with nodes for each of the major navigational paths. The purpose of user flow analysis is to identify the main user flows

through your app or website, and identify areas where the navigational flow can be improved.

Ways to improve your user flow

Collecting data on each step in your user flow will allow you to evaluate how your users navigate through your sales funnel. By their very nature, funnels will shrink at each step where users drop out. Data will indicate where your funnel is 'leaky' (with a large percentage of people dropping out between steps) and might need help.

To close up the 'leaks,' consider where you can correct points of pain or friction, where to offer more information, and where to reduce distractions and offer less.

For example, on an ecommerce site, you might conduct a user flow analysis and notice that a lot of people are getting to the shopping cart but not completing their purchase. By identifying that shopping cart abandonment is a problem, you can start generating hypotheses for why users are dropping off at that point.

It could be that your shipping rates are too high, and users are getting sticker shock. Or perhaps there are too many fields to fill out, and customers are losing interest. Or perhaps the navigation is not clear as to what action to take next.

Once you've generated a hypothesis for why your user flow is suboptimal, you can begin A/B testing your ideas to determine which of the changes will actually have a positive impact on your user flow.

How A/B testing can help improve your user flow

A/B testing is the process of comparing two different versions of a site or app against each other to see which one performs better using real world data.

A/B testing is a great way to validate hypotheses about changes to your site or app.

By going through your user flows, identifying opportunities for improvement, and testing different ideas, you can continually improve your conversion rates.

A/B testing tools like Optimizely make it easy to make changes to your site or app and provide data that show exactly how much of an impact changes will have on your core metrics.

References

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