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UX

USER CENTERED DESIGN

**Helping Product Managers
Sleep Easier at Night**

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macadamian





The user-centered design process can reduce your workload, differentiate your product, and boost your success in the marketplace.

AS A PRODUCT MANAGER, you are probably inundated with feature and functionality requests based on opinions or circumstances from within your organization. These can include:

- **A current crisis:** “The VP of Sales needs you to include the following three features so that we can win that big new account!”
- **An engineering triumph:** “This feature is so cool! We have to include it!”
- **A powerful opinion:** “The CEO thinks that users will want to access this product on an iPad.”
- **A time crunch:** “The project is late so you’ll need to cut out the least important features.”
- **A checklist mentality:** “Our competitor’s product includes this feature so we have to put it in ours, too!”

If you had the opportunity to neutralize strong opinions like these and back up your decisions with objective, scientific research, would you take it? User Centered Design (UCD) allows you to do exactly that – it gives you the hard evidence you need to prioritize feature requests, differentiate your offerings and sell more product.

Demystifying User Centered Design

A common misconception is that User Centered Design (UCD) is only about visual design. UCD is actually much more broad – it involves the scientific research of users and can answer important questions about the audience for both new and existing products. These include:

- Who are your *real* users and what do these real users *care about*?
- How do they *actually* interact with your existing product?
- How will users interact with a *new* version or new feature?

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Market Research is not User Research

User research is a key component of the UCD process and it differs from market research, which offers information that is more general in nature. While market research can offer very useful information about customer demographics, perceptions, market demand and market opportunities, it does not provide specific and actionable information on your particular end user (who may be different from the person actually purchasing the product).

Moreover, user research provides additional information that cannot be obtained by soliciting user feedback or reading user forums. By observing relatively small samples of people using a product and measuring their performance on pre-determined tasks, user research offers objective, third-party information. This information offers insight into what users actually do and want – not just what they say they want.

Please Users *and* Get the CEO off Your Back

As we hinted earlier, User Centered Design gives you an objective methodology for prioritizing feature and function requests, and the data you need to neutralize strong opinions.

Imagine you are contemplating the release of an iPad version of your product. You will receive no shortage of opinions from sales, engineering, marketing, and, of course, the CEO!

First, Determine the Value to Actual Users

We have worked with many product managers who know that they need to listen to their users as much as—or more than—internal opinions. “But how,” they ask, “do we determine user needs for a new technology (like an iPhone/iPad/Android app) when the users themselves probably don’t even know what they want?”

The first step is to uncover the value proposition of your potential application to actual users. One way to dig for this information might be to start with a *product strategy workshop*, in which a facilitator leads both internal stakeholders and actual users to uncover key business objectives and user requirements. The workshop could be followed by a *concept design* to illustrate what the product might look like, and a round of *user testing* on that concept.

Determining where the value lies with actual users allows you to identify the specific tasks and goals your product needs to support. In the case of a mobile application, for example, there is almost never a need for a one-to-one relationship between the capabilities of the desktop product and its mobile version. User needs can differ greatly from one platform to another because a user’s goal at a desktop may differ from his or her goal with a tablet or mobile phone.

Gain Agreement Through Success Metrics

By thinking about what defines product success from the *end-user’s point of view*, you can also define a set of measurable success markers and use those criteria as reference points when building a new product or updating an existing one.

Good product success metrics:

- are **objective, measurable targets** for the value customers want to experience
- **define what you need to deliver** if you want to win their business or gain support
- should be **expressed from the customer's perspective**
- can be **qualitative or quantitative** (i.e. “The mobile app should provide easy-to-access information so that mobile users can benefit even while walking outdoors.” Or “information retrieval over wi-fi must be 20% faster than the competitor’s product.”)

Success metrics relate directly to the product experience. They can be used to bring internal stakeholders on board at the beginning of the project and can serve as measurable yardsticks throughout the product development process.

Simplify And Justify Your Decision-Making

Once you have identified your product’s success metrics and obtained objective data from actual users about the value of your product, you will have much more confidence in your decisions about which features to include in an upcoming release – and which to justifiably ignore or postpone for the future.

What often works well is when a product manager and User Experience (UX) researcher co-present the market data, user research data, and success metrics to all internal stakeholders. The data often takes the form of storyboards, narratives and charts, and serves as a reference point for designers and developers later in the development process.

These presentations can bolster organizational confidence in the user research findings and ensure that even the highest members in the organization are on board.

Differentiate Your Product

While product success metrics can bring stakeholders onside and help to define the best feature set for a product, you won’t be able to differentiate on features forever. As the market matures, users demand products that improve their productivity and are so intuitive and easy to use that their interfaces become almost invisible (see Figure 1).

All too often, though, companies use a “feature checklist” mentality when comparing their product to its competitors in the marketplace. This leads to a highly undifferentiated products that stray from users actually want.

STAGE	USERS WANT	USABILITY MEANS	VENDORS FOCUS
1. Technology (Raw Iron)	The basic capability	The product works	Technical issues and delivery
2. Features (Checklist Battles)	The best set of features	Having the right functions	Adding features and fixing bugs
3. Experience (Productivity Wars)	To get their work done better	Easy to learn, fast powerful	Performance support, reducing technical support costs
4. Commodity (Transparency)	Lowest cost	The UI and navigation are “invisible”	Reducing costs or seeking new markets

FIGURE 1: The Stages of Market Maturity and Their Usability Implications
[derived from the Jared M. Spool Market Maturity Model]

Identify Goals and Tasks

Users don’t approach a product with a feature in mind – they approach it with a desired goal or task. To create a usable and an effective UI design, you need to understand the key tasks users want to complete and provide them with the capability to accomplish those tasks.

Even if your competitors are doing it, more isn’t always better when it comes to features. In fact, more is almost always worse! An interface that offers a large number of features will become bloated, cluttered and overly complicated. Users will expend more effort than necessary to understand the features available to them, resulting in excessive help desk complaints, inconsistent usage and, ultimately, frustration and low satisfaction. Our experience has been that users almost always end up using only a small percentage of the features that initially seemed so important.

Differentiate Based on Those Goals and Tasks

While your competitors may be stuck in an endless feature war, you have the opportunity to differentiate your product by studying the *real behavior* of your end users: their needs, their goals, their workflow and their workplace processes. This is possible through **direct observation and feedback** from users and stakeholders. Using these techniques, you can organize tasks and subtasks by order of importance and frequency, and map relationships and dependencies between tasks through flowcharts and mapping diagrams.

In one recent project, our client – a leader in the electronic medical records software space – was convinced that physicians needed a feature that allowed them to review medical images from their iPad because that was what the competition was offering.

We conducted onsite interviews and learned that a mobile device would not help physicians with this particular task. Reviewing images is a task that requires undivided attention, a large screen and, in many cases, access to other resources such as a colleague or written reference. The use of an iPad to review images “on the go” did not fit an important goal or task, and thus the feature was dropped from the final product.

Moreover, the research uncovered that a “quick reference” scheduling system on a mobile device would be well-received as physicians in hospitals are constantly consulting paper charts to learn which patient is next in the queue.

By following a UCD approach focused on users’ tasks and goals, the product manager was able to differentiate the electronics medical records system from the competition, rather than satisfy a checklist mentality and implement a costly feature of dubious value.

Sell More Product

The ultimate determinant of a product’s success is how well it sells in the marketplace. User Centered Design incorporates both scientific and creative techniques to boost a product’s selling potential.

Tap Into Emotions

Often, the “look” of a product can mean the difference between market success and failure. User Centered Design gives designers the information they need to ensure that your interface is visually stunning.

What’s more, visual designs can be taken out of the realm of opinion and put into the realm of hard data. Just as UCD allows a user experience (UX) specialist to determine if a product’s workflow allows users to accomplish their tasks efficiently, it also allows them to gauge the *emotional impact* of various graphic design alternatives.

We recently helped a company develop an interface for a social media monitoring tool in which one of the primary business objectives was for the visual design to have a “wow” effect on potential buyers. By leveraging user research and usability information from its target audience (marketing managers), the company developed a UI that had a modern theme and was less cluttered than existing solutions. The company has found that the product’s design made the product easier to sell because it has an immediate emotional impact. Prospects are able to picture themselves using it from the moment they see the demonstration version on the company website.

Build Long-Term Trust with Customers

While a stunning visual design can attract prospects, product managers know that the best way to drive sales in the long term is to build trust with customers. Trust leads to word of mouth, which leads to more sales.

We once encountered a VoIP phone application that had an amazingly slick visual design, but caused a lot of confusion among its user base upon release. People frequently misinterpreted the icons on the phone and would accidentally hang up their call when they actually meant to put themselves on mute. This is not the way to build trust in the quality of your product!

Formal **usability testing** with users would have quickly identified this type of error and allowed the company to address it prior to launch. Usability testing

should be performed throughout each period of product development – initially with low or high-fidelity wireframes, then prototypes, and even just before launch once all visuals are in place. This way, issues that detract from the product experience can be caught as early as possible and replaced with more intuitive final designs.

Ultimately, UCD allows you to develop a product that delivers a one-two sales punch: emotionally-grabbing visuals to attract new prospects, and an intuitive interaction design and workflow that builds trust with users.

How to Successfully Implement UCD

While the process and benefits of User Centered Design appeal to many product managers, it can be unclear how to apply its principles in practice. The good news is that UCD can fit into almost any software design and development project.

There are three main options available to product managers looking to incorporate UCD activities:

- You can engage existing **in-house** UX research and design specialists, or outsource to UX consultants. Specialists should have relevant industry experience as well as a Human Computer Interaction (HCI) accreditation or equivalent. Beware of designers who say that they are experts in both the research and design activities of UCD! These people exist but are few and far between.
- Provide **training** to your internal staff. Training can be a way to gradually ramp up a product manager's familiarity with UCD – particularly with activities that might already be familiar, such as user interviews and design walkthroughs.
- You can employ a **hybrid** model that combines in-house and third-party user experience expertise. In many cases, a UX consultant can kick-off an initial project while providing training to help you build up your team's knowledge.

Key Takeaways

User Centered Design can simplify your job as a product manager by helping you to reduce chaos in the product development process, differentiate your product and increase your product's ability to succeed in the marketplace.

Offering valuable information that can't be obtained from market research or by simply soliciting user feedback, UCD activities can be incorporated into almost any product development cycle.

If you are looking for a more efficient way to prioritize the array of feature and functionality requests arriving at your desk, consider engaging a UCD expert or receiving usability training from an accredited organization. Not only will you be better able to gain internal consensus, you'll increase your product's chances of market success, reap the rewards of an intuitive, user-friendly and competitive product and, in turn, get a better night's sleep!

About The Authors

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