Introduction

Welcome

Hello, I'm Chris Nodder. Welcome to this overview of the UX Design Techniques series. This is the first course in a series that describes a set of techniques that you can use to make your development process more user-centered. In the series, we discuss how to gather and analyze user data. Creating personas, so you know who you're developing for. Using ideation techniques to make sure you come up with creative solutions. How scenarios and storyboarding can help you fill in design gaps. How to get early validation of your design ideas using paper prototypes. And how to use all this information to better plan your development cycle. In this installment, I'll give you an overview of user-centered design, including the benefits to you and your team, and the techniques you can use. Now it's time to dive in and discuss what user-centered design is all about, so let's get started.

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1. User-Centered Design

Understanding the benefits of user-centered design

The key principle of user-centered design is that if you gather data from users and then incorporate your findings into your product design, you'll be more likely to meet their true needs, which means they'll probably like your product more and be more efficient using it. But there's another big benefit to following user-centered design techniques. It's often hard to turn empathy-based concepts like users' thoughts, feelings, frustrations, and desires into something systematic that team members can use to build products. As a result, products tend not to make an emotional impact on users. The techniques we describe in this course show how to take these empathetic elements and turn them into something systematic. In other words, user-centered design gives you a way of adding emotional impact to your products. Development team members often find it hard to truly understand the wants and needs that drive users. Team members are often experts in their domain with a great understanding of technology and a systematic approach to thinking about the world. And users, in contrast, are often not so expert at working with software and apps and don't have such a focus on understanding how

technology works. They just want their tech stuff to help them in their lives. If you apply it properly, user-centered design lets you translate the wants and needs of end users into specifications for building technological solutions. The user-centered design process I'll show you helps you turn the empathetic needs of users into systematic building blocks.

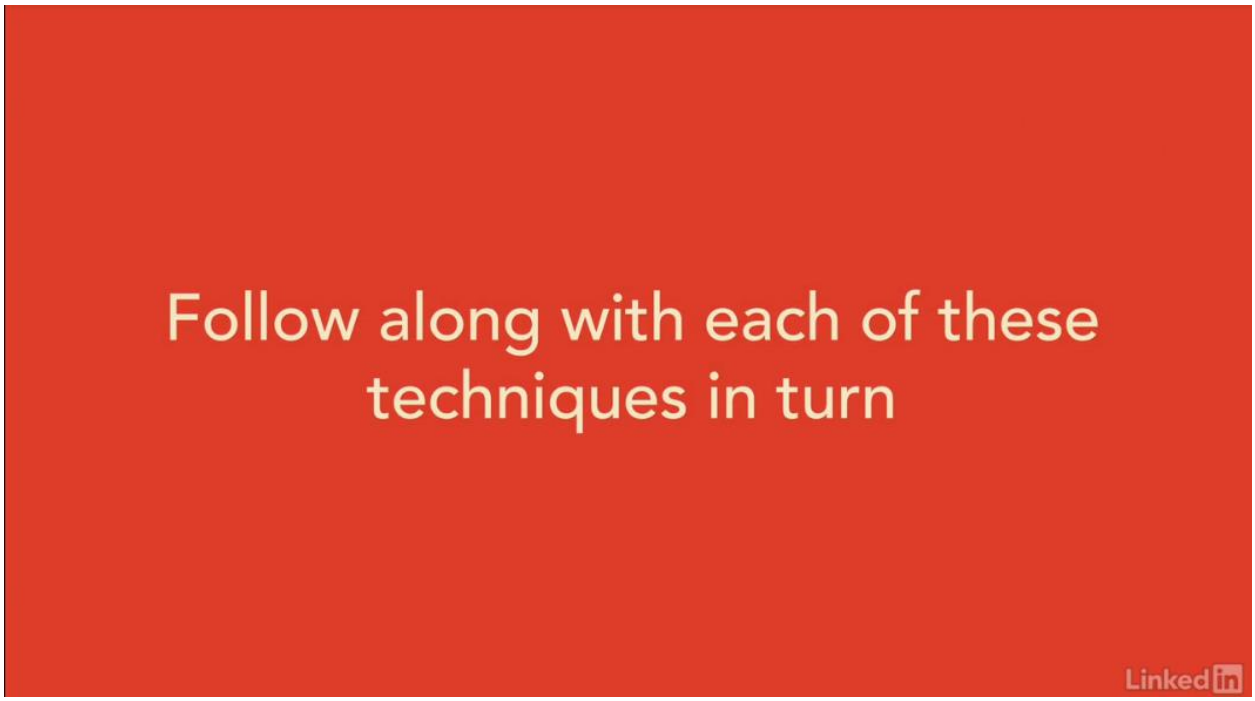
Following the data trail

User-centered design is based on data. Each of the techniques I will describe built on the data and output from the previous techniques. The user data from initial user observations is used to identify pain points, and to create personas. The pain points and personas are used during the ideation phase to create multiple possible solutions. Scenarios and storyboards then take these multiple possible solutions and narrow them down to a working set. From that, you build paper prototypes that you can usability test with some additional representative users. At any point, you can follow the trail all the way back to data you gathered from your initial observations.

Getting your team on board

The techniques I talk about in these courses are designed to be used by the whole team. Although you might have one user experience specialist on the team, the real benefits of user-centered design only happen when the whole team buys into the concept, gets involved in the activities, and thus internalizes user's problems and needs. Doing design work in isolation and then throwing it over the wall to a developer is never a good solution. Unless everyone from development, to test, to marketing, to content creation, to product management is involved right from the beginning, it's hard to develop a truly user-centered product. Initially, the team might be worried that this isn't the best use of their time. But investing a bit of time up front saves a lot of time later on during development. When everyone on the team has the same background and agrees on the product's goals and plan, it's easier to communicate ideas and discuss changes. Everyone can refer back to the same experiences interacting with users when they're designing the user experience. That means that the whole team shares a common understanding of user needs and uses the same vocabulary to describe problems and potential solutions. This way less time is wasted in getting people up to speed or trying to describe why design took the direction it did.

Knowing the alternatives



User-Centered Design is a big field. It's known by many names, such as Design thinking, Service design, Interaction design, and User experience. There are no magic techniques or solutions. There's no one way of doing user-centered design. However, the techniques that I'll describe in this series of courses are all ones I use when I'm working with development teams. And I've found that they fit together well. Once you get more familiar with user-centered design, you'll probably find other techniques that you can substitute for the ones I describe here. However, if you're just starting out in this field, I suggest that you follow along with each of the techniques in turn without trying to take shortcuts. Each technique leads on from the last, and following each in turn will give you the most benefits. By following each technique in turn, you'll end up with a paper trail that leads from your initial user observations, all the way through your design process, to the plan you put in place for the features you plan on building. This paper trail is very useful if you have to get a new team member up to speed or justify your work to someone else at a

later date. The other thing about the activities I describe in this set of courses is that they're all very fast and cheap to perform. I regularly run sessions with teams where we go through the whole process in one week. When you're just starting out, you might want to take a little longer in order to fully absorb each of the stages. However, the cost, in terms of both time and money, is minimal, and the upside of using these techniques is so great that it's well worth the investment.

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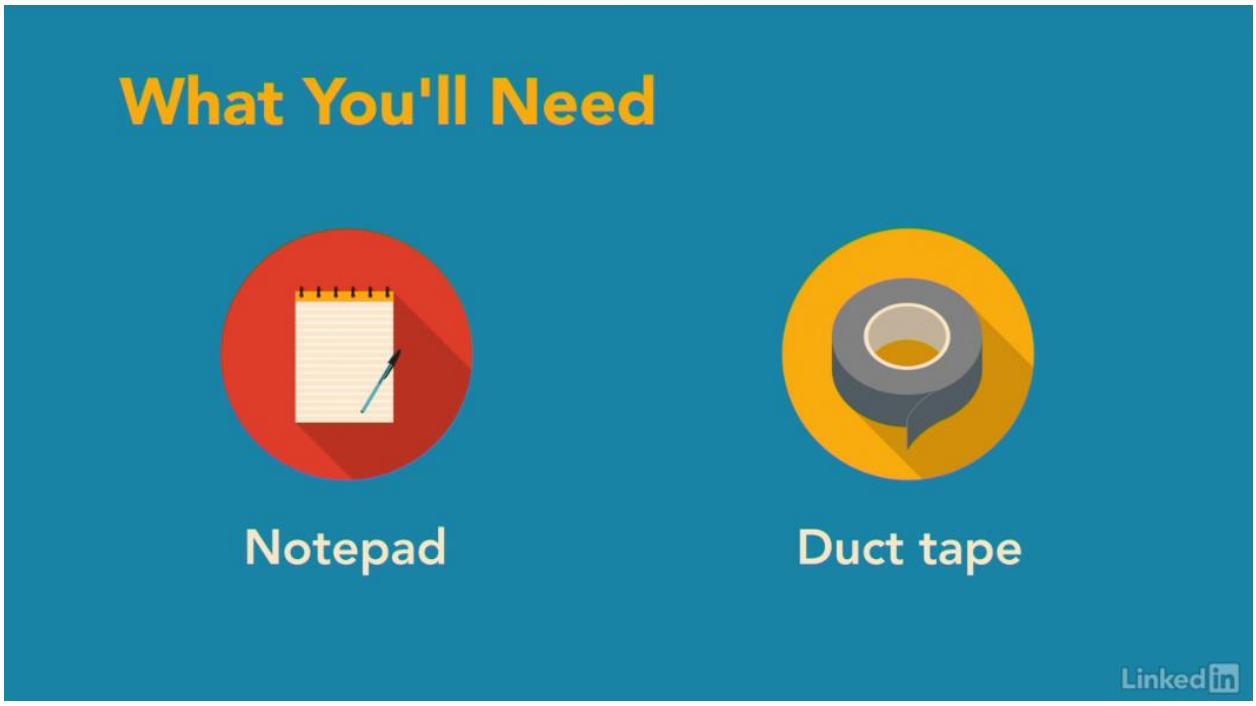
2. **Techniques in These Courses**

Analyzing user data

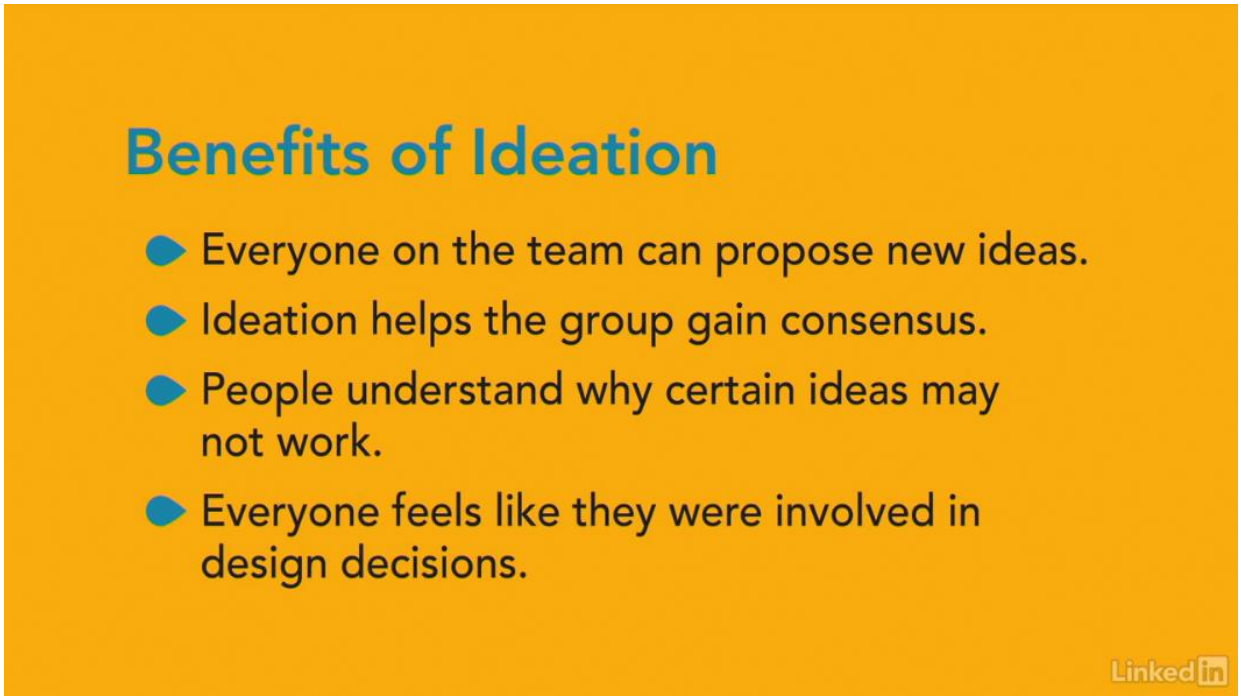


The first technique we discuss in the series is collecting and analyzing user data. Without a good set of initial data, there's no way you can do user center design. Unless you know who you're designing solutions for, and what their problems are with the current way they complete their tasks, you won't be able to design a better way of doing things. The best place to gather user data is in the place where users do the tasks you care about. In the analyzing user data segment, we introduce the concept of site visits as a way of gathering rich, actionable user data. We also talk about how to conduct site visit observation sessions so that you get the maximum useful data without leading your participants astray. And yes, we will tell you exactly what you'll need the duct tape for as well. Then we show you a technique for gathering and organizing all of this user data so that you can extract the true pain points, the things that cause users problems today. Once you have the pain points, you're in a great position to design solutions that will really help users perform their tasks better, and be more satisfied doing so.

Creating personas

Personas are imaginary yet realistic and detailed descriptions of the users of your product. They provide a basis for design discussions by concentrating many pieces of user data into key focused, believable descriptions of your primary audience. Creating personas gives the team a shorthand way of describing who they're building things for. Rather than saying "the user," which could mean anyone, they focus on some set characters with specific attributes, means that the product development takes those personas' needs into account. Personas let the whole team get on the same page. By creating an explicit persona, you make the concept of the user concrete rather than elastic. That way the whole team is developing for a common set of user attributes, which leads to creating a much more consistent interface. Even if the persona you create is slightly different from reality, users will much prefer a consistent interface over an inconsistent one.

Understanding ideation



If ideation is about removing barriers to creativity, Scenarios and Storyboards are the things that put the guide rails back in place and ensure that the solutions you design would actually be buildable by your team and desirable for your users. Scenario writing allows you to describe an ideal future, where your users can get their work done without all the problems they face today. What makes scenarios believable is that you include the mechanism by which these users achieve their happy outcome. Describing how you expect users to be able to complete their tasks is the first step in being able to develop a software solution to the problems you identified. Storyboarding lets you create a visual version of the scenario so that you can see how the interaction between users, the system, and other individuals plays out. Storyboarding is used extensively in the movie industry to plan out scenes before their shot. Here we use it to plan out interactions before we build them.

Working with scenarios and storyboards

If ideation is about removing barriers to creativity, Scenarios and Storyboards are the things that put the guide rails back in place and ensure that the solutions you design would actually be buildable by your team and desirable for your users. Scenario writing allows you to describe an ideal future, where your users can get their work done without all the problems they face today. What makes scenarios believable is that you include the mechanism by which these users achieve their happy outcome. Describing how you expect users to be able to complete their tasks is the first step in being able to develop a software solution to the problems you identified. Storyboarding lets you create a visual version of the scenario so that you can see how the interaction between users, the system, and other individuals plays out. Storyboarding is used extensively in the movie industry to plan out scenes before their shot. Here we use it to plan out interactions before we build them.

Creating paper prototypes

The less cost you sink into a prototype, the less concern you'll have about throwing it out and starting again if you got things wrong. A paper prototype is quick to create, easy to modify, and still lets you test the interface concepts that you care most about. This course will show you how to produce really low cost prototypes using nothing more than office supplies. You can run usability tests using just your paper prototype. This lets you verify your design by checking that the task flows properly and the participants understand your design concepts. Because the paper prototype doesn't look like a finished product, session participants tend to give more honest and useful feedback. They're also happy if you make changes to the prototype on the fly to incorporate their suggestions. You'll get better, more honest, and more actionable feedback from a thrown together paper prototype than you would from creating a mock up on a real device. A paper prototype allows you to learn a lot about the viability of your proposed design without ever writing a line of code. The cost savings associated with avoiding rework caused by these mistakes will pay for your minimal investment and user centered design many times over.

Implementation planning

User experience design is useful in its own right for getting the team to understand how to design for customers rather than for themselves. However, its true value is in driving the development process by helping the team create an implementation plan. The way that it does this is through mapping out the different capabilities that will be needed in order to build a real product from the paper prototype that you created and usability tested. Because they've gone through all the stages of the user-centered design process at this point, the team is well placed to prioritize capabilities and see the relationships between different items. They know what's essential to deliver first and what might just be a nice to have item. In this way, the team can start development, knowing that they are building the foundation for a usable product with opportunities to get feedback through early usability testing and beta testing at several stages before release.