

# Human-Focused Design

Leverage customer insights and user experience design to improve products, productivity, and the bottom line.



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# Introduction

The field of user experience (UX) design is revolutionizing how people interact with the world around them. UX design is why Google is so simple to use and how Amazon knows what product to recommend next. It's also why the best websites make it seemingly effortless to find what you're looking for, and why some products are so intuitive that they don't require an instruction manual. UX even comes into play in everyday experiences — think about the check-in process at a doctor's office or the way you choose to organize your kitchen wares. UX design is everywhere.

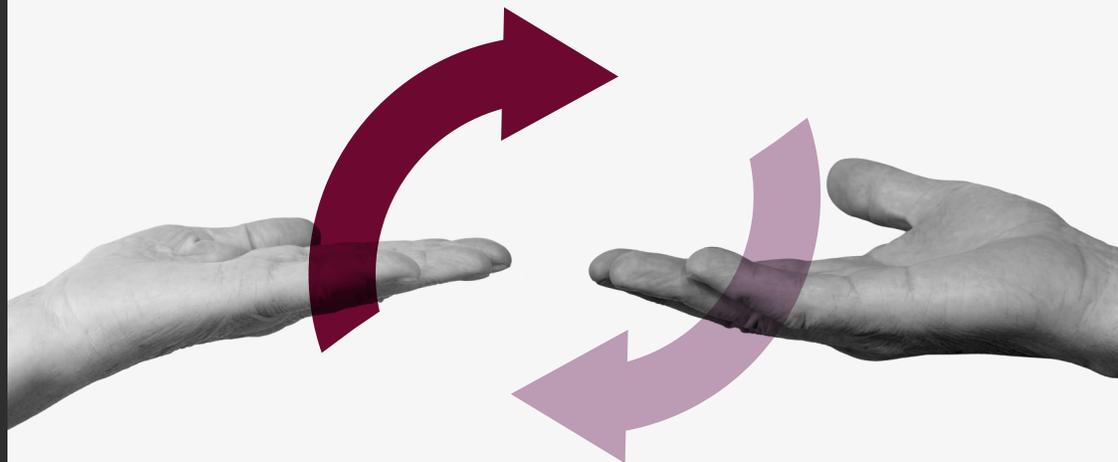
A smart UX strategy has the power to make or break a business, and that's why demand for UX talent is on the rise. All too often, business leaders focus on their own point of view and miss the mark on what their customers actually want and how to best deliver it. As a result, companies roll out ineffective products and/or processes that audiences don't enjoy or can't use, losing market share to competitors.

Increasingly, companies big and small turn to UX designers to create and improve digital experiences, which in turn fosters consumer loyalty and retention. The secret to their success? Empathy. UX designers put users at the center of the design process and prioritize customers' needs over all else.

## An Overview of the UX Design Process

A “good” experience hinges on whether it successfully solves a real problem or provides users with actual value in a straightforward way. This is the core distinction between art and design. Whereas art can simply be aesthetically pleasing, good design must also have utility — looks alone aren't enough. [User experience methods](#) provide the human insights and hard data to support and validate design decisions.

Comprising many tools and systems, UX is largely driven by intuition, decision-making, human variables, and problem-solving. UX designers approach their work by writing an initial problem statement derived from a hypothesis and assumptions, performing research to validate (or refute) their concept, synthesizing what they've learned, and iterating until they land on a design that successfully achieves their goal.



The heart of this process lies in engaging with, and developing empathy for, the people who ultimately will use the product or service. Rather than making decisions in a vacuum, UX designers deploy several strategies — often repeating them as they refine and optimize — to tailor their product to actual user behavior and needs.

Developing a UX design mindset helps individuals and teams more easily and efficiently achieve their goals — and it's important to note that these approaches aren't exclusive to the field. Business leaders, product teams, creatives, and more can see great impact by incorporating them strategically, too.

In this paper, you'll learn how to leverage UX design to gain crucial insights into customers and create products they'll love through these powerful approaches:

- **User interviews:** Gain valuable insights into your target audience's motivations, behaviors, and emotions.
- **Affinity mapping:** Discover trends, themes, and areas of opportunity in your research through strategic organization.
- **Customer journey mapping:** Form a deeper understanding of customers' processes, needs, and perceptions by utilizing this tool.
- **Usability and usability testing:** Ensure your product is not only functional and user-friendly, but also provides value.

Ready to discover how to connect with, and solve for, users and their needs? Let's get started.

## Problem-Solving Through Empathy

We all know about widely successful products. They're the ones that seemingly come out of nowhere and change the way we live, like the smartphone, ridesharing, or turn-by-turn navigation. But, there are a lot of products that don't make it because consumers don't see their value — or enough value to pay for them.

Avoid this all-too-common pitfall by conducting user interviews, a process that allows UX designers to gain an early perspective into the motivations, behaviors, and emotions of the target audience for which they are designing. It is here where we seek to empathize with our users and validate our assumptions, leading us to key insights that will fuel the design process.

During user interviews, design teams go out into the world, find people who fit their target personas, observe their behavior, and ask them questions. A persona is a representation of users who have the same problem or goal. And, although personas are not real people, they are created based on real user data, often generated or validated by user interviews.

User interviews were introduced in 1990 when a report called *Contextual Design: An Emergent View of System Design* included “contextual inquiry” as part of the [product development](#) process.

The contextual inquiry process looks something like this:

1. Teams visit users in the environment in which they use either their product or a competitor's, or where a problem is occurring.
2. They watch user behavior, asking questions about what they observe along the way.
3. Armed with these observations, teams draw conclusions about user behavior that they then apply to better their offerings.

The goal of a user interview is to discover problems that product and design teams could potentially solve. Anyone on a product development team — including [product managers](#) and [user experience designers](#) — can benefit from taking part in user interviews. By observing real people in context while they are experiencing a problem, you can build empathy, avoid making assumptions about user wants and needs, and strengthen your desire to personally offer a solution. Interviewing can result in not only more successful products, but also [more inspired teams](#) that find greater meaning in their work.

Oftentimes, user interviews are misunderstood as “just asking users what they want.” However, this fails to represent their true objective. As researchers, our goal is always to observe current behavior to prove that a problem is real, identify the context in and frequency with which it occurs, understand how a user currently solves the problem, and gauge their level of frustration when it's occurring.

Critics will often add that they understand problems sufficiently by looking at analytics, or [quantitative data](#). Unfortunately, quantitative data can only tell you that there is a problem — it's qualitative data that tells you what that problem is and why it exists. By interviewing users and truly understanding and empathizing with a problem, you can learn about their behaviors and motivations and the scenarios in which they'd use your product. This information, which can't be distilled from quantitative data — allows you to think more broadly about solutions and build the next set of truly innovative and successful products.



*“As researchers, our goal is always to observe current behavior to prove that a problem is real, identify the context in and frequency with which it occurs, understand how a user currently solves the problem, and gauge how frustrated they are when it’s occurring.”*

## How to Find Users to Interview

Sometimes, this may be as simple as doing intercept interviews, in which you approach people on the street, in a place of business, or digitally while they are using your product, and ask them for a few moments of their time. (It’s OK if they say no! Move on to the next person — someone will say yes soon.) You can also tap into your current user base via an email blast or by connecting with those who have submitted a support issue.

It’s common practice for researchers to compensate interviewees, although ideally with as little money spent as possible. The idea is to provide just enough compensation to entice people to participate, but not too much to introduce additional bias into the data. That’s why you’ll often see companies saying something like, “Talk to us for 30 minutes and enter to win a \$25 gift card.”

If you have a large budget and are looking to speak with highly targeted users, you can also hire a company to recruit participants for your test. This can get expensive and also inject a bit of bias because these users tend to be compensated at a higher rate than willing participants from other methods. However, in some cases, this is the only efficient way to access a specific group of people.

Depending on where your users are located, you might conduct an interview in person, on the phone, or via video conference. It’s best to have two people from your team present so that one person can ask the questions, converse, and practice active listening while the other takes notes. If you record the interview, make sure to ask the user for permission beforehand.

## How to Ensure a Successful User Interview

The goal of a user interview is to get at why users behave the way they do and how they feel about their experiences. Here are some best practices to keep in mind:

- **Ask open-ended questions** that focus on the person’s past or current behavior. Interview prompts can even be phrased so that they aren’t questions, such as, “Tell me about a time that you [used a self-checkout/ searched for clothes online/scheduled an appointment with a doctor].”
- **Follow up** with questions that get at why the person behaved or reacted the way they did. Inquire about how they felt.
- **Watch the person’s body language** as they respond. Sometimes, the most important information about how to proceed can come from what people don’t say.
- **Above all, do not ask users to predict what they will do in the future.** Rephrase questions like “Would you pay for this service?” or “What would you like to see in future updates?” so that it targets past behavior: “Have you ever paid for a service like this?” or “Why have you stopped using this product or similar products?” Focusing on past behavior targets actual problems, rather than those that are projected or theoretical.

Conducting user interviews will leave you with a whole lot of material to sort through. In the next section, we’ll dive into an essential research-organization tool that uncovers key insights and drives the design process.

## Visualize Your Research

Every great design begins with thorough research. By leveraging techniques like user interviews, usability testing, contextual inquiry, and competitive analysis, UX designers have the opportunity to learn about user pain points, motivations, and preferences in a personal way. But, tracking all of that data and finding patterns can be difficult, especially in a long text document or pages of handwritten notes. That's why UX designers practice affinity mapping.

An affinity map, also known as an affinity diagram, gives designers a complete picture of their early research process. It is a physical, tactile, and editable design artifact that's invaluable for showcasing trends, themes, and areas of opportunity for discovery and improvement. With just a few tools, you can create a visual representation of large amounts of data that will help inform your future strategy.

### How to Create an Affinity Map

Creating an affinity map is easy. All you'll need is:

- **Sticky notes.** These are the crux of your affinity map. They're the right size for writing down tiny pieces of research, and they're easy to move around and group together to highlight themes and related findings. You'll go through more of these than you think, so stock up! Minis will be too compact to write on, so go for the standard size or slightly larger.
- **Markers.** Pen and pencil can be too light to read, especially if you're building a map with a team. Markers help make sure everyone can read all of the ideas presented, whether they're right next to the map or a few feet away.
- **A large, flat writing surface.** You'll need a large enough area to not only post a bunch of different sticky notes, but also include additional observations that provide context to your research. These could be themes you see emerging, questions you want to follow up on, or brainstorming ideas. Large dry-erase boards can work, but most designers prefer to hang large-scale sticky notes.

#### Step 01 Map ideas on your sticky notes.

Your initial research can come from a lot of places: in-person interviews, observations of users interacting with a current product or service, internet searches, and surveys, to name a few. All of this user data now needs a place to go.

The first step is to write out all your research findings on your trusty sticky notes. Being able to separate data out into moveable blocks will allow you to get a better scope of the qualitative and quantitative information you've collected. You can group together like information later, but for now, you just need to get it out of your head (or your notebook) and into this new working space.

Items to jot down may include:

- **Statistics and other key facts.** These could be from your own data collection, surveys, or secondary research. Chances are, these numbers and research-backed facts will help to reinforce some of the more subjective observations you've collected from in-person interviews.
- **Personal observations or insights.** What has jumped out at you as you've navigated your research? These "aha" moments could be the beginning of deeper insights and point the way to future exploration. Add them in now and thank yourself later.



*“An affinity map is a physical, tactile, and editable design artifact that’s invaluable for showcasing trends, themes, and areas of opportunity for discovery and improvement.”*

- **User quotes.** User interviews provide tons of information, but the pieces that can actually be used to inform your future design are buried in small talk, tangential stories, and relevant — but not crucial — facts or observations. Don’t give up! Read through your notes as though you’re reading an essay or novel. If a sentence jumps out at you, that’s a green light to jot it down.

## Step 02 Organize and group your research.

Now that you have a small mountain of sticky notes, get to grouping! Group together user quotes that highlight similar issues or opportunities. Statistics that all fall within the same area of research should go together, too. As your groups start to solidify, annotate with a marker on your paper or whiteboard to begin putting notes in broader categories.

A few tips for organizing your groups and categories:

- **Your first categories are probably not going to be your final categories.** Don’t be afraid to move sticky notes around to areas where they don’t look like they belong; you may find a relationship between two disparate user issues that you wouldn’t have seen otherwise.
- **Take photos.** Paper gets crumpled, and sometimes sticky notes flutter to the floor and are stepped on by an unsuspecting coworker. Document your process so that, if you do have to put your map back together at some point, you won’t be starting from square one.
- **Ask for input.** Once you feel good about your map’s organization, have another person (either a team member or someone else) take a look. Are they finding the same patterns? If not, it might be an indicator that you’ve narrowed your research down too much. Always start broad before you focus too intently on one area. The design process is iterative, and your affinity map may be, as well.

Affinity maps are essential for synthesizing research from your interviews, and designers conduct multiple rounds of mapping sessions throughout the course of a project. The insights you uncover in creating your affinity map will help you better understand your users, which is key in creating effective personas and making decisions about new product features.

Now that you’ve explored and organized your users’ needs, habits, and behaviors, it’s time to map out how people will actually use your product. In the next section, we’ll explore a technique called customer journey mapping, which is used to illustrate this process.

# Customer Journey Mapping

## Documenting Users' Interactions

The Ralph Waldo Emerson quote, “Life’s a journey, not a destination,” may be a cliché, but it perfectly reflects customer journey mapping, a valuable tool for determining how a customer may use a product or service.

Customer journey mapping, also known as customer experience mapping, is the strategic process of capturing and communicating complex customer interactions. UX designers use it to illustrate the customers’ processes, needs, and perceptions across their interactions with services, products, and organizations.

For example, when designing for Starbucks’ mobile ordering app, a journey mapping exercise would likely include a customer’s actions:

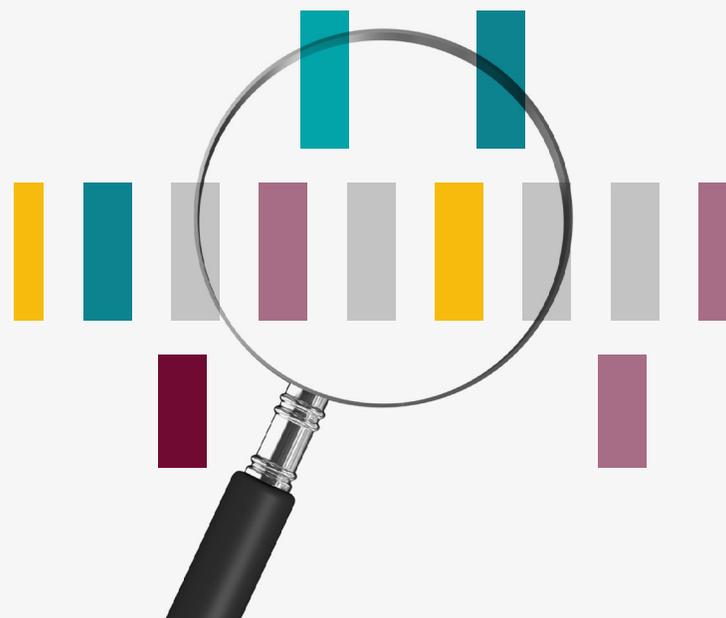
- Before they use the app.
- During their ordering experience.
- After they’ve picked up their order.

By focusing on a customer’s experiences throughout their journey with a product or service rather than jumping ahead to the end goal, designers can form a deeper understanding of their audiences and tailor their work accordingly.

Customer journey mapping is an ongoing, collaborative process that’s used to understand the full life cycle of a customer or potential audience. Cross-functional teams that use it can include [marketers](#), executives, [engineers](#), customer support professionals, [product owners](#), and more. By working together, these players can gain a shared understanding of how customers think and feel, as well as their relationship to the product. Engaging in a customer journey mapping session builds knowledge and consensus across the organization, and ultimately solidifies the shared reality of customers’ experiences.

## How to Develop a Customer Journey Map

Journey maps are visual timelines of the user journey. They show each touchpoint a user has with a digital or physical product, and the emotional high and low points that happen as the user progresses through their journey. They are usually created digitally, often with software like Sketch, and saved as a PDF that the designer refers to and updates throughout the product design process.



*“By understanding the nuances of the consumer journey, a brand can identify moments to surprise and delight their customers on- and offline, as well as forge a more meaningful and memorable connection.”*

Let’s pretend you own a hotel in Las Vegas and want to market your business as a honeymoon destination. Your customer journey map might start out looking something like this:

- 01 Customer searches for “Honeymoon in Las Vegas” on Google.
- 02 Customer sees a Google ad that says, “Romantic Honeymoon Packages, Las Vegas.”
- 03 Customer clicks the ad and lands on your website’s “The Honeymoon Package” product page.
- 04 Honeymoon Package details are listed clearly: a romantic gondola ride, champagne, a dozen roses upon arrival, and fine chocolates delivered nightly.
- 05 Customer puts the Honeymoon Package in their cart but does not check out; they are prompted to enter their email address before leaving the website and they do so.
- 06 One hour later, customer receives an email about the Honeymoon Package in their cart and is offered a free upgrade if they book within the next two days.
- 07 Excited about this personalized offer, customer shares the details in the email with their fiancé.
- 08 Two days later, after considering other options, the couple logs onto your website to complete the purchase.
- 09 Months later, the couple arrives at your hotel, where they are escorted to their luxury suite to begin their “Honeymoon in Las Vegas.”

This customer journey involves many steps and many decision-making factors on the part of the customer. By understanding its nuances, a brand can identify moments to surprise and delight their customers on- and offline, as well as forge a more meaningful and memorable connection.

Customer journey mapping is just one way to get to know the people using your product. Coming up, you’ll discover how to get feedback from current and potential users.

## Creating for Users' Needs and Requirements

User experience design isn't only about creating new products, but also improving ones that already exist. Before making any changes, though, it's essential to consider usability. What exactly do we mean when we talk about a product's "usability"?

At the highest level, [UX professionals](#) determine usability based on three factors:

- **Effectiveness:** Can people do what they set out to do?
- **Efficiency:** Can people do what they need to do within a reasonable amount of time and with a reasonable amount of effort?
- **Satisfaction:** Do people feel OK about the steps they had to take in order to properly use the product or service?

Fundamentally, usability is about matching products, systems, and services to users' needs and requirements.

### Usability vs. Functionality

Usability shouldn't be confused with "functionality," as the mere presence of good features and functions has little bearing on whether or not people are able to use them. When products or services are overloaded with too many features, or when features are provided in ways that don't match expectations or needs, it's difficult for customers to find and use what they're looking for. When that happens, they fumble with the product or service and are likely to abandon what they're doing to find another way to achieve their goal.

### How to Determine Whether Something Is Usable

According to Jakob Nielsen, a thought leader known as one of usability's founding fathers, usable systems have five high-level qualities. These should guide your thinking as you design and become your frame of reference as you evaluate. Answer the following questions to evaluate whether a project is on the right track toward usability.

#### 01 Learnability

Make sure people can begin to perform basic tasks with minimal effort during the time they initially use a product or service.

- What a user's required knowledge level coming into the site, app, product, or service?
- With what information have they been primed?
- Are there too many features?
- Have conventions been used from other sites, apps, or systems with which your audience is familiar?
- Did you provide a way to learn about the less obvious, secondary features?

#### 02 Efficiency

Ensure people can achieve their goals quickly with the system after they learn how to use it.

- Does the system reduce hesitation with clear language and feedback?
- Are there special shortcuts for power users?
- Is technology leveraged to reduce user effort?
- Lastly, in the case of digital interfaces, how many clicks does it take to use, and are there opportunities to reduce steps to the end goal?



*“When products or services are overloaded with too many features, or when features are provided in ways that don’t match expectations or needs, it’s difficult for customers to find and use what they’re looking for.”*

### 03 Memorability

Strive to design systems that people can not only learn to use initially, but don’t have to relearn with every use.

- Does the system call out changes since the user’s last interaction?
- Are the interface elements placed in conventional positions?
- Would customers be able to re-establish proficiency after a lapse in use?

### 04 Error Management

Reduce the number, magnitude, and impact of any user errors.

- Have the designers anticipated errors that users may make and tried to prevent them?
- Have designers considered preemptive error management?
- Is the system forgiving of user mistakes?
- Are error messages clear?

### 05 Satisfaction

Determine whether people continue using the product/service.

- Does the product/service do what it says it will?
- Is it different from others in its category?
- Is it visually appealing?
- Is it well executed from a technical perspective?
- Are there pleasant surprises? Does it delight?

### Usability Is Not Only a Digital Concern

Usability depends just as much on hardware design as it does software design. Usability is also critical to products with no digital interface, such as the houseware company OXO’s kitchen utensils. The company prides itself on giving people easy, ergonomically sound ways to open jars, peel fruit and veggies, and perform other cooking and food-preparation tasks. Finally, consider [services](#) in addition to physical and digital products. For instance, is the process for renewing your driver’s license a usable one? Think about opportunities for improvement there.

Now that we’ve established what usability is, how do we test for it? In the next section, dive into how to determine what’s working and what’s not throughout your design process.

## Learn What's Working — and What's Not

Usability testing is an integral part of UX design that allows us to get feedback directly from users, thereby creating a product that's not only functional and user-friendly, but also provides value.

Usability testing is often conducted later in the design process when working on a new feature or product, or at the beginning of a redesign project. The exercise is intended to check:

- The design structure's efficiency.
- The organization of content.
- Whether the design direction is in line with the users' "mental model," motivations, and satisfaction.

When incorporated toward the end of the design process, usability testing helps validate and evaluate whether the product's design goals have been met.

## How to Conduct a Usability Test

Usability testing provides us with an opportunity to observe users while they interact with a design, and hence learn about and understand not only the problems that occur but, more importantly, why they're occurring. For example, if a user is unable to complete a task in a mobile app, is it because some link labels don't make sense? Perhaps the content itself is confusing, or the whole task flow doesn't meet their expectations. Testing also allows us to empathize with users by learning how they think. This provides valuable insights that translate into effective and efficient design decisions.

One of usability testing's most obvious benefits is its impact on user friendly design, but there are additional reasons to implement the practice. Usability testing can lead to great results when it comes to comparing design alternatives, checking to see whether design goals have been met, getting stakeholder buy-in, and more. It can also help align team members and stakeholders. When everyone can see how a product is actually performing, it's easier to get on the same page about the next steps in developing and improving that product.

Two of the key challenges when conducting a successful usability test are recruiting the right participants and having a skilled moderator. A good moderator must be empathetic, open-minded, a good listener, and able to multitask!



*“Usability testing allows us to empathize with users by learning how they think. This provides valuable insights that translate into effective and efficient design decisions.”*

The typical steps involved in conducting a usability test are:

#### 01 Plan.

- a. Decide what you’re going to test, e.g., a specific area of your site or app.
- b. Write scenarios and tasks for the users you’re going to test.
- c. Prepare a script to introduce the test to the participant.
- d. Make sure your prototype is working as expected before testing.

#### 02 Define what you’re going to test.

- a. What are you trying to test?
- b. How can this feature can be validated?
- c. What will a “successful” test look like? What about a “failure”?
- d. What is a realistic use case for this app or feature?

#### 03 Recruit your users.

- a. Define your target audience.
- b. Recruit representative test participants.
- c. Compensate participants (optional, but recommended).

#### 04 Conduct the test in one of these formats:

- a. In-person moderated.
- b. Remote moderated.
- c. Remote unmoderated.
- d. Guerilla testing (feedback gathered quickly by approaching people in public spaces).

#### 05 Analyze the results.

- a. Capture detailed documentation of test findings.
- b. Share results with the design team.

#### 06 Debrief and report.

- a. Take time between tests to document the top three most memorable points.
- b. Summarize your findings.
- c. Determine your task success rates by detailing the information collected, noting data points such as:
  - i. Number/percent of participants who completed each scenario, and all scenarios. (A bar chart often works well for this.)
  - ii. Task time. How long did it take to complete task?
  - iii. Error rates, e.g., accidentally clicking the wrong link.
  - iv. The severity of the usability problem.
- d. End with a conclusion: What does it all mean? What still needs to be done?

As you begin to make discoveries through customer journey mapping, user interviews, and usability testing, you’ll collect a broad range of data points that traverses many key insights. These insights lie at the heart of good design and comprise some of the most valuable tools a UX pro needs to build impactful, delightful experiences.

# Where Do We Go From Here?

As we mentioned at the start of this paper, the strategies above aren't just for UX designers. They can enhance and improve workflows across a broad range of functions, and boost collaboration and communication across individuals and teams. People who excel in user experience design tend to be curious, empathetic, and unafraid of a good challenge — and these qualities help elicit better insights and push innovation in any role.

Get yourself and your team on the road to impactful inquiry, research, and iteration. The following tips will help you cultivate a culture of human-focused strategy and exploration.

**01 Push for new perspectives.** Narrow mindsets result in narrow opportunities; it's hard to innovate and grow when you are stuck in a single point of view. Foster an environment that pushes for new perspectives; insights are the fuel that ignites the design process. Introducing new perspectives early and often results in a more nuanced and informed product offering.

**02 Leverage a systems-thinking perspective.** Mindfully practice taking a holistic view of your product by not only focusing on the details of your design but also the broad, platform-level implications. The designs you create don't live in an idyllic vacuum. They must fit within technical, budgetary, and other constraints that comprise your business ecosystem.

**03 Stay informed and always experiment.** Design, by its very nature, is evolution. To stay fresh, one must constantly discover new information and draw inspiration from growth in the field. Keep a sharp edge by exploring new tools and approaches, and encourage your team to allow time for exploration.

**04 Build empathy with your user.** Engaging products begin and end with strong emotional connections. Always consider the touchpoints your product has with your user, and focus on where you can draw this out in your product to bring both utility and delight.

UX designers and their teams are constantly in problem-solving mode, seeking more usable, memorable, and delightful experiences for their users.



# About

## General Assembly

Since 2011, General Assembly has transformed careers and teams — including more than one-third of the Fortune 100 — through pioneering, experiential education in today’s most in-demand tech skills. The leading source for training, staffing, and career transitions, GA fosters a flourishing community of professionals pursuing careers they love.

Learn how to build seamless, user-friendly products in our full-time User Experience Design Immersive or part-time User Experience Design course, or dive into the product life cycle in our part-time Product Management course. Get started for free with an Intro to UX livestream, or cover the basics in our expert-led workshops and events.

Teams and individuals can become more efficient and cross-functional through our leading-edge training in design, product management, web development, digital marketing, and data science. Learn at our global campuses, online, or on site at your company.

To learn more, visit [ga.co](http://ga.co).

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