

DΞPALMA

The Essential Guide to Building Applications People Love

How to win users, increase adoption,
and reduce support costs with human-centered design

Contents

Introduction	3
I What, Exactly, Is Human-Centered Design?	7
II The Benefits of Human-Centered Design	16
III The Human-Centered Design Process	25
IV The Business Case for Human-Centered Design	38
V Should You Build a UX Team or Hire an Agency?	44
VI Human-Centered Design at DePalma	56
VII Sources	58

Introduction



DePalma introduced a new design and development approach that'll likely set an internal standard for the foreseeable future.

*Cory Moore,
Marketing Technology and Usability Manager*

All software applications, regardless of niche or industry, share one thing in common: they live or die by their rate of adoption. Yet countless applications fail because their design doesn't adequately address the needs of the people they're meant to serve.

Human-centered design is a set of principles that place end-users at the heart of the design process and ensure designers create solutions derived directly from the needs of their audience.

Rather than rely on assumptions, designers construct a user experience based on input from the people who will actually use the application. Consequently, users embrace the final design because they have helped to shape it.

Employing the wisdom we've accrued from years of practicing human-centered design, we wrote this guide to answer questions we regularly receive

about the process. We hope this treatise helps you create a strong foundation within your own organization to design and build applications your end users will truly love.

In the following pages, you'll learn:

- Why human-centered design is critical for building usable products and applications
- The exact steps and techniques used in the human-centered design process
- How to build a business case for human-centered design in your organization
- When to build a team internally or work with an agency
- How some of the largest organizations in the world have successfully utilized human-centered design

About the Authors



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What, Exactly, Is Human-Centered Design?



When you let people participate in the design process, you find that they often have ingenious ideas about what will help them. And it's not a one time thing; it's an iterative process.

Melinda Gates

Creating an application people will love requires rethinking the role end-users play in shaping your design.

The philosophy of human-centered design posits that users should be central to the design process, rather than be subjected to a design that was conceived and created without their input.

Design traditionally happens like this:

- 1 Designers come up with ideas based on abstractions
- 2 The design is created in isolation — or sometimes by committee
- 3 Users are only asked for feedback at the end of the process

Excluding your audience until later in the process means the end result is far less likely to solve the real problems they face each day.

Instead, users should be partners in the design process from the outset.

That way, as the UX design takes shape and evolves, you'll have input at each critical stage. In the end, this means people will buy-in to the new design *because their input helped to create it.*

In practical terms, the human-centered design process provides designers with tools and techniques to establish a rapport with users and devise solutions that address their fundamental needs.

Importantly, human-centered design isn't only focused on what is desirable for users. It also takes into account what is viable from a technological standpoint, as well as how to structure solutions to be financially viable.

The specific steps in the process can vary, and they often overlap. At DePalma, we practice human-centered design using these steps:

- Strategy
- User Research
- UX Design
- Build
- Launch & Analyze

(We'll detail the techniques and deliverables for each of these steps in **Chapter III.**)

Because the human-centered design process is fluid, it's important to keep certain principles in mind to guide the work. Again, there's a large body of work regarding these principles, but these are two we always keep in mind at DePalma:

Empathy

Empathy is the core of the human-centered design process. To successfully design for your audience, you must understand their challenges, their goals, and more broadly, how they view the world.

By establishing a deep understanding of their audience's perspective, UX designers can more effectively stay centered on the needs of the audience they're solving problems for.

The human-centered design process includes a number of methodologies to encourage empathy between designers and their users. Notable examples include:

in-person interviews

- field research and observation
- usability testing
- diary studies

Iteration

If empathy is the core of human-centered design, iteration is its failsafe.

Iteration refers to evolving a ux design based on feedback from three main groups:

- 1 End-users of the application
- 2 Business stakeholders
- 3 Developers

At each stage of the design process, these groups give their feedback on the current state of the UX design — whether it's a workflow, wireframe, or prototype — and the design is adapted based on their input.

This feedback loop ensures that the design has buy-in *at every stage of the process from both users and product stakeholders.*

Think of every new iteration in the design as a new detail carved into a sculpture. In the end, the accumulation of new details helps the artist create a sculpture they know their audience will love.

If you're developing a new product or application, this concept should be particularly exciting. By employing a human-centered design process, you'll arrive at a product you know users will adopt.

All the risks commonly associated with application and product development are exponentially reduced.

Why Is Human-Centered Design Important Now?

Simply building something that offered unique functionality used to be enough to win users. There was less competition. People had less choices.

It's an open secret that making an application or product that's functional is no longer sufficient — even if that application solves an important problem.

The history of the past two decades is littered with failed products that couldn't combine powerful functionality with a modern user experience.

Myspace lost to Facebook. Mapquest lost to Google Maps. Blackberry lost to the iPhone. You get the idea.

The common denominator is that these products couldn't offer the same degree of usability as their competitors. They weren't as intuitive or as gratifying to use. As their functionality became commoditized, their poor usability became all too apparent.

At Depalma, we've worked with many enterprise technology leaders who spent millions building applications without using a human-centered design process. The result is always the same: barely anyone adopts the application — sometimes no one does at all.

Human-centered design is important because it's the most reliable way to create an outstanding user experience.

The Growing Importance of User Experience

Top-notch UX design has helped today's industry leaders like Apple, Amazon, Airbnb, Uber, and Slack rise to prominence.

These products and services are powerful in their own right, but they also make it stunningly easy for users to accomplish their goals. Once someone experiences a truly intuitive design, their expectations change, and they'll always seek out products with a comparable level of usability.

Unsurprisingly, when companies invest heavily in UX design, profit follows. In 2016, venture capital firm NEA, in partnership with IDEO, Uber, and Invision and others, surveyed over 400 businesses about how they viewed design.¹

The survey found that the most successful companies — those valued at over \$1B — were more likely to believe that design directly contributed to company growth. These companies were

14% more likely to believe that design leads to higher sales

44% more likely to believe that design leads to higher customer retention

21% more likely to believe design leads to higher customer engagement

30% more likely to believe that design leads to faster product cycles

Benefits of Creating a User Experience with Human-Centered Design

The value of UX isn't limited to products. Organizations who redesign the user experience of their internal applications also see substantial ROI. Whether you're designing a product or developing an application for employees, these are the most common benefits:

- reduced training and support costs
- increased productivity and operational efficiency
- better word of mouth marketing
- higher customer retention
- reduced customer churn
- higher application adoption rates

Disclaimer: there are correct and incorrect ways to do UX design.

For example, skipping the research phase, listening to users rather than observing them, and relying on your instinct, or the instincts of other stakeholders rather than collecting and analyzing real data are all common mistakes that can ruin an application before it's ever launched.

By using a human-centered process, you can make certain that the finished design actually supports the goals and workflows your users need to be successful.

How Users Helped Create the AT&T Model 500

The year was 1949, and Henry Dreyfuss was leading the design of the AT&T Model 500 rotary phone, a product historians calculate would go on to sell over 162 million units.² At the time, this meant there was roughly one Model 500 unit sold for every household in the United States.

The Model 500 was not the first rotary phone Dreyfuss had designed for AT&T. The telecomm giant had released its first version twenty years earlier. But it was the first to have numerous aspects of its design informed by consumer testing and feedback.

During the design process, Dreyfuss hired John Carlin, the world's first industrial psychologist, to lead a series of consumer tests for the Model 500. These tests would lead to numerous improvements to the design, from putting white dots behind the holes in the finger wheel to adjusting the length of the cord.

These innovations, sourced directly from consumers, are what helped the product sell in such historical numbers.

The approach that Dreyfuss used nearly 70 years ago had many of the human-centered design hallmarks: in-depth user research, testing, and iteration.

Though the methods we discuss in this guide have adapted to digital products, the benefits of putting the challenges and experiences of users at the center of the process remain just as valuable.



The Benefits of Human-Centered Design



Risk Reduction

If an application's UX design is terrible, people will reject it. Likewise if the product doesn't solve an important problem for your audience, no one will adopt it.

So how do you build a great user experience?

How do you build something people will actually use instead of launching a product or application that you have to redesign 6 months later?

If you've been reading, then you know the answer: Follow a human-centered design process.

Guarantee Designs and Features Solve a Problem

Because human-centered design is guided by rigorous observation and research, the decisions made in the design process are not a guess. Each choice is directed by the needs of the users as well as the observations of the designer.

Assumptions are validated with data. Guesswork never makes it to market.

In the high stakes game of application design and development, this kind of clarity is a godsend. Instead of wondering whether your new design or new feature will be a hit, you'll know the answer will be yes.

An upfront investment in a better design approach could save you a fortune, or even be the difference between the success and failure of your project.

For Products

Lower Support Costs

Products with poor UX can still get users. But they can't grow their usage past a certain threshold, because the support costs become untenable. The software is too complex for people to troubleshoot on their own, so they constantly contact support.

Unsustainable support costs are one of the most common business cases for a UX redesign. Most of UX redesign projects we've worked on were driven by clients who needed to reduce their customer support costs.

Using human-centered design will drastically reduce the amount of resources dedicated to customer support. The more intuitive a product, the more straightforward it is for users to understand and troubleshoot.

McAfee was able to reduce their support calls by 90% after they redesigned their user interface with input from their users.³

Higher User Retention

The advancement of technology is characterized by greater choice. If an app isn't easy to use, people will trade it for another solution that does mostly the same thing and requires less work. Poor UX design all but guarantees users will churn.

Building a user experience based on feedback derived from users will result in higher user retention and lower churn. People will feel like your product was custom made for them, because in many ways it was.

This principle becomes apparent even in the onboarding process. Groove, a help desk SaaS startup, noticed that certain free trial users were struggling to complete tasks within their application.

Too many free trial users were leaving.

So Groove developed a short email series with content to improve the user experience and better explain certain tasks. As a result, they increased their customer retention by 40%.⁴

Increased User Acquisition

When a product has a poor user experience, it's just more difficult to get users. Sales and marketing can be tortuous because the application is difficult to use. People become confused rather than interested.

Even when people want to sign up, a poor user experience can disrupt the onboarding or acquisition process, motivating leads to quit before they complete the process.

But when your product delivers an experience that's intuitive and useful, people want to sign up. Then those people tell their friends about the product and the user base starts to grow organically. Marketing campaigns become more successful, because onboarding is more intuitive.

By correcting 10 simple UX flaws on their ecommerce site, Vocier, a luxury suitcase brand, increased their conversions by 75%.⁵

For Employee-Facing Applications

Increased User Adoption

Just like consumer-facing products, the success of employee-facing applications is ultimately measured by user adoption. Without an intuitive user experience, even custom applications developed to solve a very specific business case will find users hard to come by.

Using human-centered design allows you to launch an application that not only solves your workflow challenge, but also makes everyone's life easier through great UX.

When Ingram Barge contact used to redesign their fleet management application (more about that in Chapter III) their IT team had already tried and failed to deliver a solution. Ingram's users rejected the application, costing the company a significant amount of money.

By taking the project through the human-centered design process, we created a design tailored to the workflow of Ingram's users. They liked it so much they applauded during the design presentation.

Lower Training & Support Costs

The more complex your internal systems, the more time you'll have to spend training new hires how to use them. Longer onboarding processes raise the cost of training, limit how quickly new team members can be productive, and tie up IT resources during the training process.

This problem was exceptionally apparent in one of our recent projects with a government contractor. During our research, we discovered a daily workflow that took over two hours. As you can imagine, training new employees was quite expensive.

By introducing a more usable design and optimizing the workflow, we helped exponentially reduce training costs. New hires were given a faster path to productivity, and pressure was eased on the IT team to provide ongoing support — both during the training process and after.

Higher Productivity & Happiness

The business cases that drive the development of enterprise applications will vary, but one KPI is constant: improved productivity. Almost all in-house applications are created to make the work of a particular set of team members easier to accomplish.

But there's a catch-22. Even if the application delivers the functionality its audience needs, it won't improve productivity if it's not easy to use.

In contrast, people will embrace an application that delivers powerful functionality in tandem with a new workflow that's tailor made for their goals. They'll not only be more productive, but also happier and more engaged with their work.

GE ran into this exact problem. And they solved it through UX design. The result was a 100% increase in productivity.

How a UX Redesign Saved GE \$30 Million⁶

A Collection of Ad-Hoc Systems

By 2010, General Electric had quietly grown into the world's 14th largest software developer by revenue. GE hadn't necessarily planned to grow this line up business, but the company had consistently built custom applications to satisfy the requests of clients.

Over time, the revenue from those requests added up.

Unfortunately, ad-hoc projects for clients did not translate into a scalable system for employees. There was very little consistency among systems. Redundant work and inefficiency reigned.

GE decided to do something about it.

Creating a Center of UX Excellence

GE enlisted Frog Design to help consolidate their systems and create a new standard for design across the organization.

Frog Design's first move was to structure a UX center of excellence, which set standards for design as well as development processes across the organization. The UX center of excellence quickly helped GE decrease the time to market with new products and raised the standards for user experience.

Building Enterprise Design Software

As UX design flourished inside the organization, individual business units began to realize better and better results. GE wanted to maximize the value they were seeing in select areas, so they contracted Frog to build the Industrial Internet Experience Design software (IIDS), which would function as an organization-wide UI toolkit.

By gathering input from stakeholders across the organization, Frog was able to match the functionality of IIDS to real, substantial challenges users needed help solving.

In the first year after the application launched, GE saved \$30 million and realized a 100% increase in productivity.



The Human-Centered Design Process



Though no two human-centered design projects are alike, we draw from the same kit of tools for each of them.

IDEO

The human-centered design process is ideal for designing user experience for digital products. Advances in technology better enable the feedback loops that make up the foundation of the process.

But due to the inherent variability in design projects, human-centered design is flexible. Each agency or practitioner can develop their own approach.

What follows is the process we use at DePalma — one that's helped us design applications for some of the world's largest organizations.

Our process is separated into five phases: Strategy, User Research, UX Design, Building, and Launch & Analyze.

While these phases are distinct, it's also important to note that they often overlap throughout the design process. Every project is different, so we make sure to keep the process flexible.

Under each phase, we've listed the specific techniques that we apply to create the design.

Strategy

Before any research or design work happens, we interview stakeholders to ascertain several vital pieces of information:

- The business case you're trying to solve your project
- Your vision for the project
- The budget and scope of the project
- The key performance indicators (KPIs) that best quantify success
- How to prioritize each KPI

We also conduct a competitive analysis and content audit at this phase.

By developing a shared definition of success, we're better equipped to execute the project, give input where it's needed, and set realistic expectations before any work begins.

On the Importance of Strategy and Research

We found that allowing DePalma Studios to perform that step [strategy and research] gave us more insight as we now move to development. If you start building right away, you'll lose that extra information.

*Cory Moore,
Marketing Technology and Usability Manager*

In the beginning of a project, it's natural to want to skip right to the visual design and other deliverables, like wireframes and prototypes. Those elements feel more concrete. They're easier to show to other stakeholders.

However, our experience has shown time and time again that investing in strategy and research dramatically improves the performance of the final UX design. The more data we can use to inform our decisions, the better.

With that in mind, the precise amount of time we spend on these two phases is up to the client. Each project is different, and we keep our process flexible to accommodate all types of requirements.

In the end, even a couple of days spent on strategy and research makes a huge difference.

User Research

Research

After the strategy is defined, we spend time researching the product's targeted end users. This helps us understand the most pressing problems our audience is dealing with and the solutions they need to achieve their goals.

Here are the typical steps in our research, though these can be adjusted based on the needs of the client:

Ethnographic Field Research: By meeting them in their offices and observing them in the field, we can ascertain details, challenges, and insights that users might not think to share with us during other parts of the research process.

Surveys: To look for patterns and help gather qualitative data, we use surveys to gather feedback from large groups of users.

Focus Groups and User Interviews: Whenever possible, we conduct in-person interviews to ask in-depth questions about the challenges users are facing.

Dairy Studies: Users are asked to record their thoughts and experiences with their work systems so designers can analyze them.

Analysis

Once we've gathered enough research, we review our findings and spend time interpreting what we've learned. Then we translate this insight into models about the audience's day-to-day work and interactions with their work technology.

We use the following techniques at this stage:

User Scenarios: To better understand the perspective of our audience, we create storylines for each persona about their day-to-day work and lives.

Mental Models: A mental model diagrams a user's goals versus the technology available to them at work. Visualizing these data points helps identify technology and workflow gaps that prevent people from accomplishing their goals.

Personas: To aggregate and focus our research, we build user profiles for each segment of our audience.

Use Cases: We create a list of steps that outline the interactions between users and the system we're redesigning.

In Practice: Research for Ingram Barge

Ingram Barge is a marine transportation company that owns and operates the largest fleet of barges in the United States. They hired us to design the UX for a custom fleet management application they were building.

Ranging from logistics coordinators, to fleet dispatchers, to harbor boat captains, the user base was eclectic, and notoriously difficult to please. Ingram had already tried to build the application once, but failed because the users rejected IT's solution.

So we spent 3 months conducting field research in Ingram's offices in Nashville, St. Louis, Paducah, and New Orleans.

After using numerous research techniques, we developed personas, each with a different workflow and challenge.



Freddy "Red" Bates
COORDINATOR BOAT CAPTAIN

“ This job has changed a lot over the years, but I know I'm helping guys coming up learn what they need to know to stay safe and get the job done right. ”

Goals

- To keep his fleet sheets organized at all times
- To make sure the line hauls coming in and out are moved as quickly as possible
- To keep is crew safe at all times
- To share his knowledge and experience with younger guys

Rational Needs

- Needs his crew to be safe
- Needs to be organized and ensure the fleet is accounted for
- Needs to motivate his crew to work hard for the good of the team

Frustrations

- Customers changing orders and having to re-do work
- Not having all the information he needs readily available
- When a crew member drops the ball and puts the rest of the crew in danger

Emotional Needs

- Needs to feel fulfilled being stationary instead of traveling like he used to
- Needs patience to deal with unforeseen complications from weather and customer demand
- Needs to teach and guide guys coming up in rank to feel complete

Demographics

AGE 67 years old	EDUCATION High School Diploma
RELATIONSHIP STATUS Married, 1 child; 2 grandchildren	INCOME \$XXX,XXX/year
LOCATION Paducah, KY	TIER Pro
ARCHETYPE Wise Old Man	ADJECTIVES Loyal, organized, faithful

Biography

Freddy grew up in Illinois and started working in the barge industry as a contractor maintaining HVAC units. After spending time on the boats at shore, he decided to train as a deckhand at 25; later becoming a Line Haul Captain at 47. Once he became a grandfather he transferred to a Coordinator Boat to be able to spend more time with family.

Pains

- Customers changing orders frequently causing delays and extra work
- When severe weather causes major disruptions and breakaways

Gains

- Being around nature while working
- Good income and benefits as well as a more consistent schedule
- Leading his crew and seeing them move up the chain of command

PERSONA

Our research also helped us identify three overarching pain points:

- 1 Different user groups had different workflows for the same process.
- 2 Ingram's legacy system created duplicate work for line haul captains and fleet dispatchers.
- 3 Important information was hard to find or didn't exist in Ingram's legacy system. This created a lack of transparency and added time to the workflow process.

Equipped with these insights, we were able to tailor a UX design that served each persona and workflow in this complex project.

UX Design

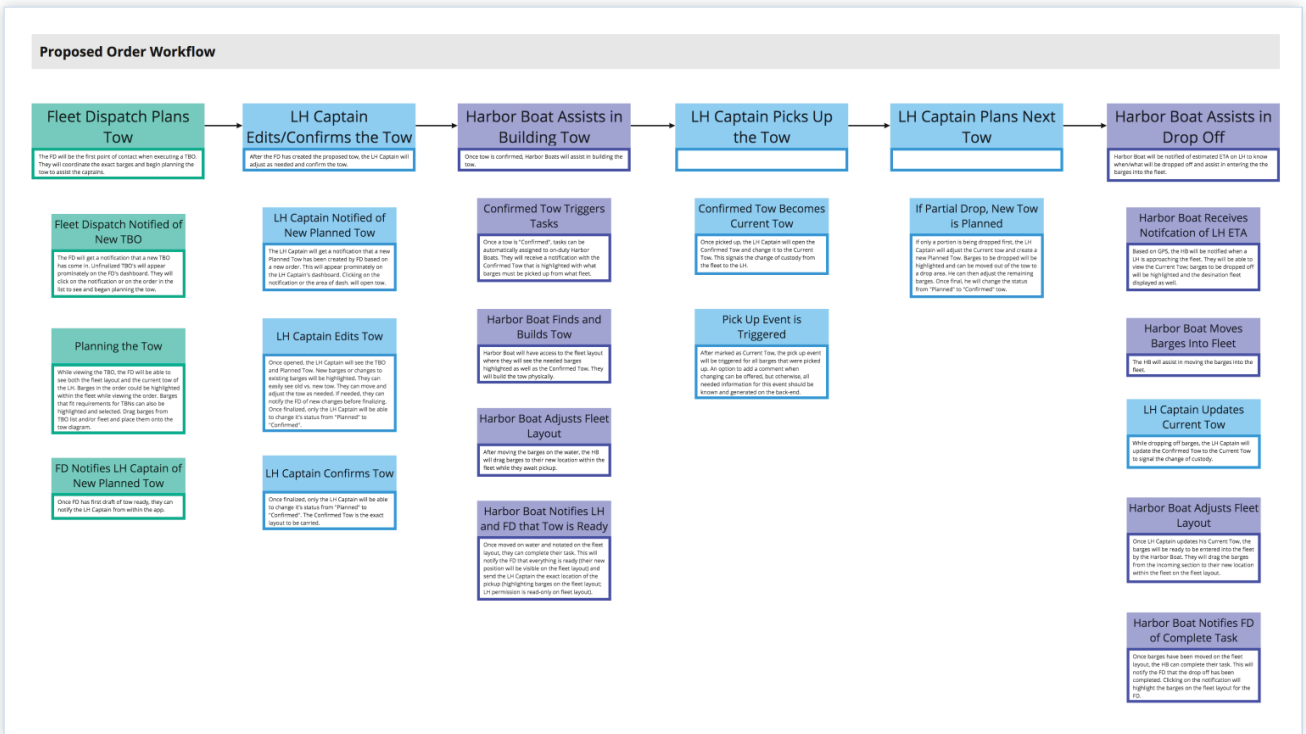
Once we've presented the findings of our research and analysis, we move into UX design. This process visualizes the users' current workflows, optimizes them for a new design, and finally, creates low-fidelity mockups of design ideas for users to review.

The UX process is the most iteration-heavy phase of the human-centered design process. Users provide feedback on wireframes and prototypes to validate our designers' proposals.

Then we repeat the iteration process until the design has the full support of users and stakeholders.

Here's more detail about each step in this process:

User Flows: This technique visualizes each step users take in their current workflows to complete their tasks.



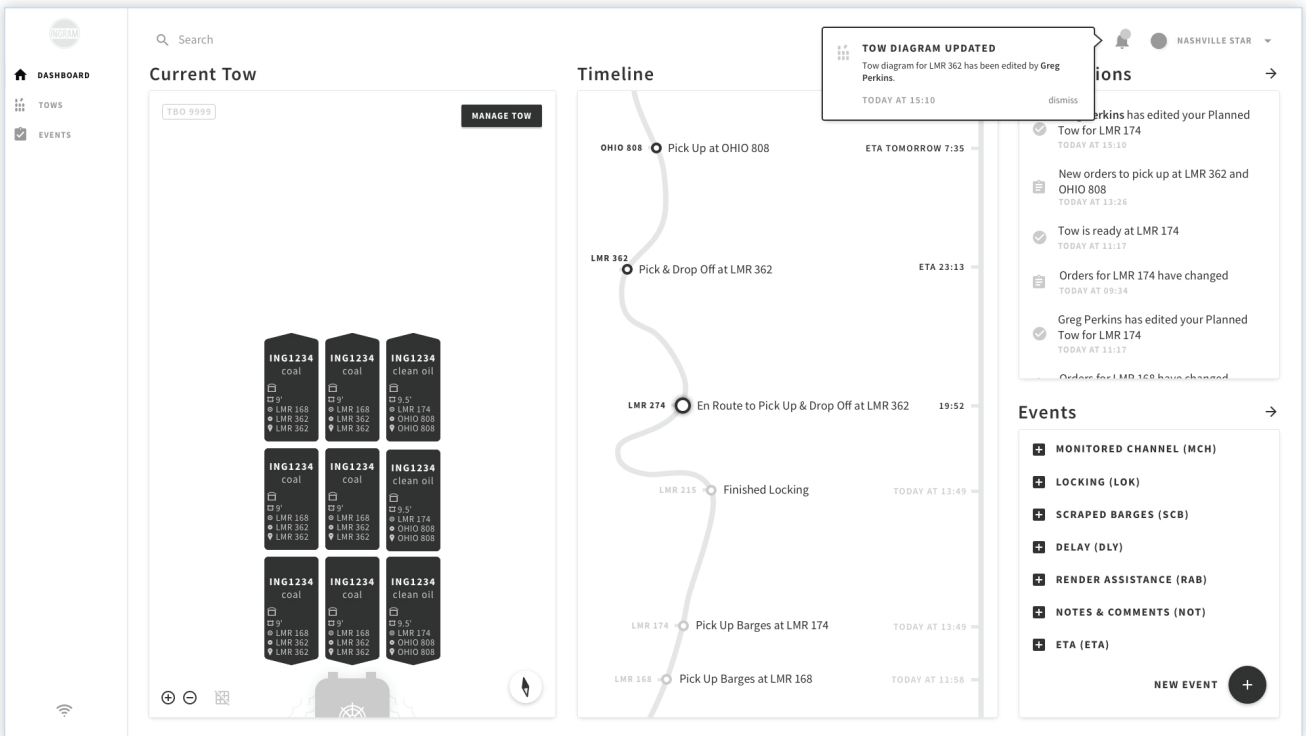
Information Architecture: To optimize how users complete their work, we identify each piece of data that's collected throughout a workflow and organize these data points sequentially and thematically.

After the data is regrouped, we can create a new, optimized workflow.

Wireframing: To give users and stakeholders an opportunity to provide feedback on the new workflow, we create low-fidelity, black and white designs for each step in the optimized process.

Wireframes are the most efficient vehicles for user feedback, because making edits only requires a small amount of work.

After we presented the wireframes to Ingram Barge's users, they all stood up and applauded. Why? Because our research had gained their buy-in and created something that would transform how they worked.



Clickable Prototype: After the wireframes have been perfected, we create a clickable prototype that more closely resembles the final version of the UX design. These prototypes allow users to navigate the new design and get an in-depth understand of what the final experience will be like.

In Practice: The Evolution of User Flows to Prototype for Ingram Barge

Build

After iterating, refining, and validating the prototype with copious user feedback, we start building the final design. This is also where we develop the front-end and back-end of the application.

Because front-end development has matured into its own full-fledged speciality, we're often hired to build that part of the application. But we are capable of full-stack development, which would happen during this phase as well.

Here's how it goes:

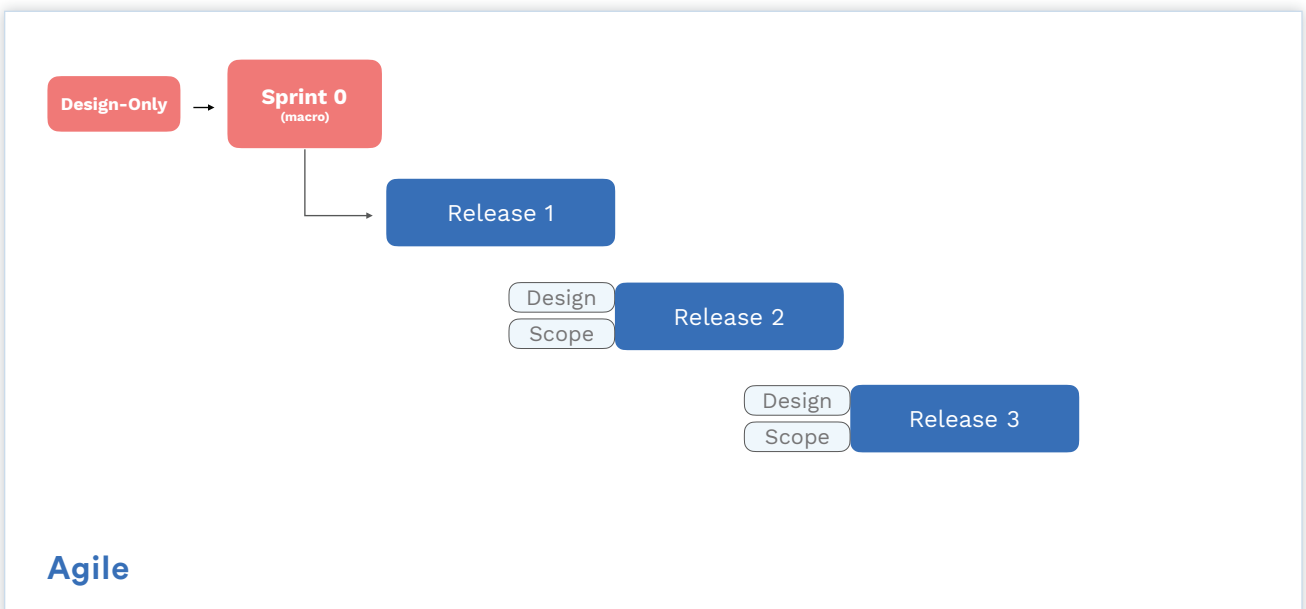
Rebranding: Referencing our research from the beginning of the project, we often apply new brand standards and designs to the client's application.

Many clients don't request any branding work at the beginning of the project, but after the preferences of their users become more apparent, they usually opt to improve their branding to better suit their audience.

For example, a change in color palette can make a measurable improvement in usability.

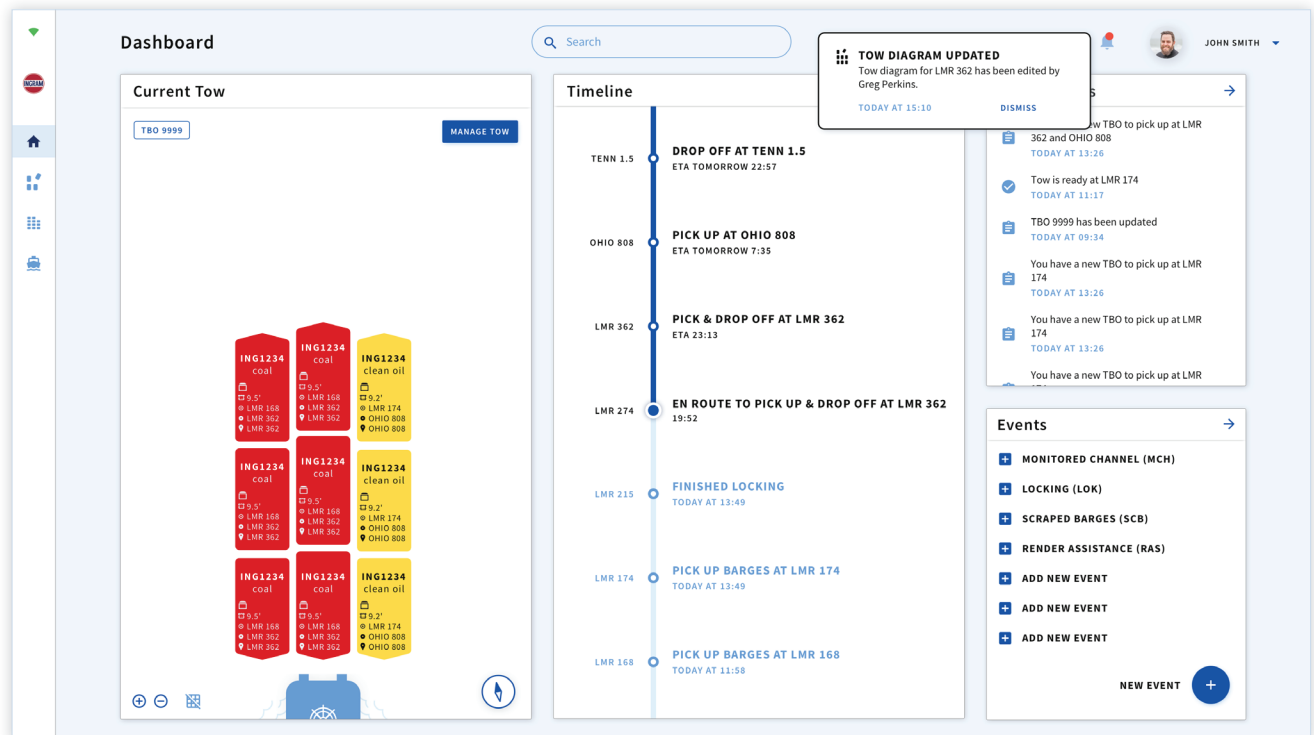
High Fidelity Style Guide: We apply the fonts, color palettes, and other pixel-perfect elements that evolve the interactive prototype into a fully-realized design.

Sprint 0: If we're hired to build the front-end of the application, we utilize a sprint 0 process that maps the development process to the production of the design team. Development is performed using Agile principles.



*If we're not contracted to perform the front-end development, we always work in tandem with our clients' in-house development team. They attend our design meetings, so we can ensure our designs are feasible from a productions standpoint.

In Practice: The Final Design for Ingram's Fleet Management Application



Launch & Analyze

Once the UX design and front-end development are complete, we'll help the client launch their application. Even at this stage, we continue to gather user feedback, so we can continue to optimize the application.

Here are the main techniques we use at this stage:

Bug Support: If any bugs surface after the application launches, we'll rapidly troubleshoot and resolve the issue.

New Feature Requests: Once the UX design of the application is launched, we'll plan and build any new features that the client requests.

Ongoing User Research & Analysis: After the application is live, we continue our research by monitoring how users interact with the software and fielding any feedback they provide us.

Our goal is to pinpoint areas of improvement. If we identify any opportunities for optimization, we'll utilize the human-centered process to design the improvements.

IV

The Business Case for Human-Centered Design



Good design is good for business. We are convinced that good design can materially help make a good product reach its full potential.

*Thomas J. Watson,
Former President, IBM*

No one makes decisions in isolation, and choosing an approach for any design and development project can be a daunting. Technical complexity, changing market needs, and poorly conceived designs are only a few of the tripwires that lie in wait for design and development projects.

Thankfully, human-centered design supplies you with a reliable method for mitigating these risks — if not preventing them altogether.

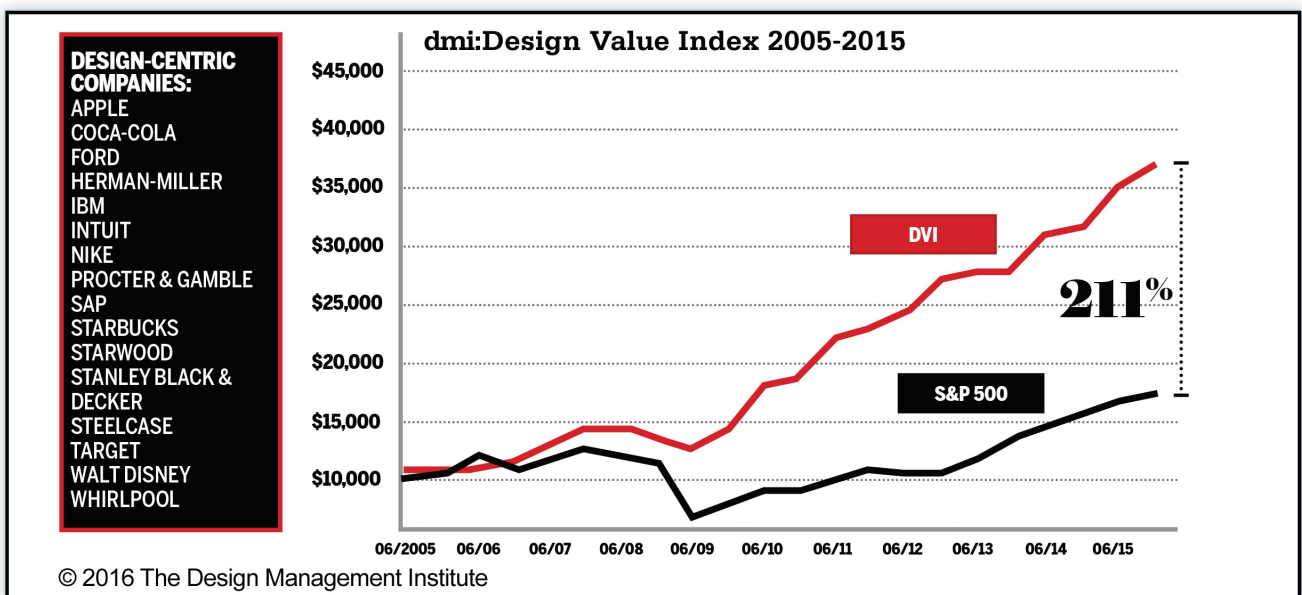
To establish a bullet-proof business case for human-centered design, let's examine some industry numbers and explore the dangers of not using a human-centered process.

Investing in UX Design is Good for Business

Whenever a study measures the ROI of UX design, the results seem to validate an investment in the discipline. There is a pattern of UX design producing business value.

In 2015, the Design Management Institute released the results of their Design Value Index (DVI). The DVI measured the performance of a portfolio composed of 16 stocks from companies that met certain criteria that signified them as “design-centric.”

The portfolio delivered a 211% performance over the S&P 500.⁷



Case Study: How Bank of America Correlated Better UX to Financial Value⁸

Noticing a Pattern

In 2003, an online product manager at Bank of America noticed a pattern. A significant number of customers were having a hard time completing the online enrollment process. Too many users were abandoning the process.

Intrigued, the product manager reviewed some competitive analysis data and realized that Bank of America's conversion rate for online enrollment was falling behind their competitors.

Giving UX a KPI

The product manager began working with the design team to develop a metric they dubbed "yield," which measured the percentage of people who completed enrollment out of all those who started.

Serendipitously, Bank of America's financial department had already calculated the dollar amount of each new enrollment.

By tying that dollar amount to an increase in yield, the product manager and her design team colleagues could calculate Bank of America's bottom line improvement when yield increased.

Armed with this information, the design team tested prototypes of a new UX until they arrived at a design that doubled their yield metric.

The Takeaway

To create a business case for user-centered design, identify an important user behavior metric and tie it to the value for your organization.

The Perils of Ignoring Human-Centered Design

Human-centered design is comparable to the scientific method. Both use empirical evidence to validate or invalidate solutions to problems. Both drive innovation and prevent unfounded ideas from propagating.

Consider the consequences of ignoring such an approach.

Traditional design is based on the assumptions of the designer. And even great designers can't reliably intuit the needs of users. Without early user validation for your product or application, you're taking a huge gamble on whether or not people will adopt the design.

Design and Development Waste

Not consulting users in the beginning of the design process can lead to additional expenses later in the project. If you wait until after an application has launched to get user feedback, developers will have to make expensive changes to the application's code.

Plus, you'll have more things to change, because the UX design wasn't validated with its end-users.

Short-Term Redesigns

If your design decisions aren't verified early and often, there's a chance you'll launch your product or application and have to redesign it within six months.

User Churn

Redesigning your product doesn't guarantee people will like it. Without user feedback to guide the direction of your design, you're investing a significant amount of resources with no assurances that users won't still leave in the end.

In addition to the risks, you'll also forfeit many of the rewards that come along with human-centered design:

- Lower training costs
- Increased user adoption / acquisition
- Higher user productivity and happiness

V

Should You Build a UX Team or Hire an Agency?



Now we arrive at the age-old question: should you build a team or partner with an agency?

Building an in-house UX team requires vetting a diverse group of designers and hiring for specific roles in the UX process. Meanwhile, finding the right agency necessitates a thorough look at the each vendor's UX experience and process, as well as their body of work.

To make your task less daunting, we'll discuss the advantages, limitations, and best practices for each approach.

How to Build a UX Design Team

A complete UX team should include resources for three primary areas: user research, UX design, and visual design.

In order to match the standard you'll get from an agency, your in-house team should also include management personnel that guide the creative direction of the project and ensure it stays on schedule.

Here's a breakdown of a typical UX design team, and where "UX Designers" (a very broad term in and of itself) respective skill sets tend to categorize themselves:

UX Researcher

Gathers research so the UX designers have a comprehensive understanding of the challenges, goals, and preferences of the users. This position is particularly important given the significant amount of research required by human-centered design.

UX Designer

Translates the user research into an optimized workflow using the information architecture process. After the workflow has been refined, UX designers will create wireframes that outline the new user flow and app design.

Visual Designer

Evolves the wireframes into a pixel perfect version of the final application design. Visual designers apply color palettes, typefaces, and other brand standards to turn the wireframes into an aesthetically pleasing user interface.

Content Strategist

Works with the UX designer and visual designer to plan the content that users will interact with throughout the application. While designers focus on creating an intuitive visual experience, content strategists make sure users find the right content at the right time in their workflow.

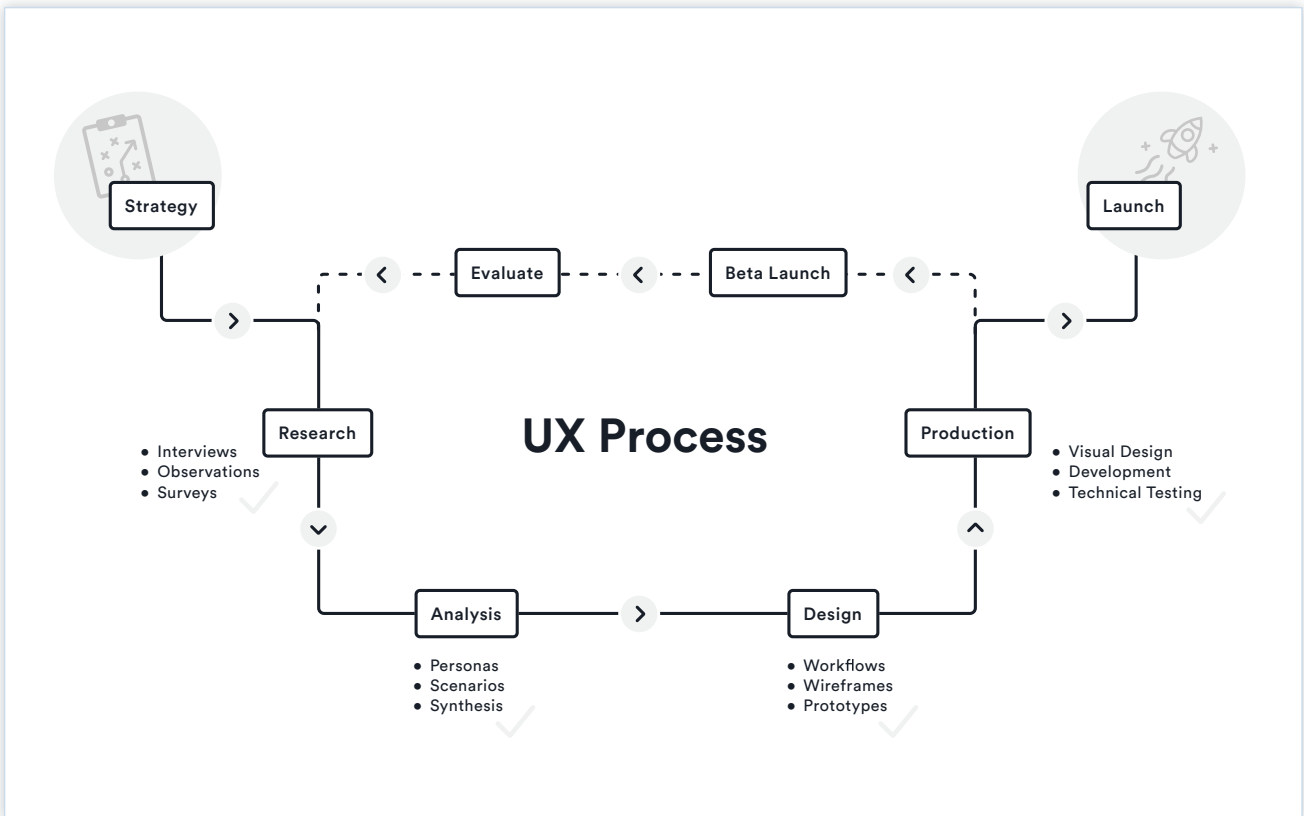
Creative Director

Orchestrates the entire human-centered design process. Creative directors often help visual designers develop new brand guidelines, give feedback on wireframes and prototypes of UX designers, and collaborate with content strategists.

Project Manager

Complex projects and teams with inexperienced designers need project managers. This position works with everyone on the team to make certain deliverables are being completed on time, the project stays within its original scope, and developers are kept in the know about design changes.

In short, it takes a range of skills needed to assemble a complete UX team. Here's a workflow visualization to better illuminate how these team work together to complete a human-centered design project:



Advantages of an In-House Team

The Team Will Build Industry & Product Expertise.

The clearest advantage of hiring an internal design team is that they're thinking about your product or service all day, every day.

Consequently, they can develop a deep understanding of the needs of your audience and the details of your industry, because their work focuses on these subjects over the long term.

You're Integrating UX into Your Organization.

UX design is quickly becoming the key differentiator for products and services of all industries. By building a full-fledged UX team, you're hiring talent that can have a tremendous impact on not only your product, but also on your entire organization.

Drawbacks of an In-House Team

Lack of Consistent Work Will Lead to Downtime.

Organizations often go through cycles where they address a major UX challenge and then reap the rewards.

What do your UX designers do after that issue has been resolved? If you're going to bring on in-house UX resources, you need to make sure they'll have consistent work once your primary project is completed.

More Than One Project Can Be a Good for Creativity.

Human-centered design encourages practitioners to work on multiple projects, because it spurs creative thinking and new ideas.

Working on the same project for an extended period time can imbue a designer with a substantial amount of specialized knowledge, but it may stagnate the overall standard of their creative work.

You Have to Invest in a Tech Stack.

Like all digital skills, UX design requires tools of the trade. Part of assembling an in-house design team is equipping them with the necessary technology to do their job. Which of course, comes at an additional cost.

How to Hire a UX Agency

While developing an internal UX design team is a long-term project that may return substantial value over the longer term, partnering with an agency is usually the path to a more immediate return on investment.

But remember, not every agency is as adept at UX design as they claim. Here are the must-haves that will help you tell a true UX agency from a digital agency with some graphic designers.

UX Agency Must-Haves

A Research-First Process

Human-centered design — and more broadly good UX design — relies heavily on in-depth user research. The data gathered from interviews, observation, and other research techniques informs all of the decisions made in the latter parts of the process.

If an agency can't articulate their research process, then there's a high likelihood they aren't that acquainted with how to uncover and design for the needs of your users.

A Senior UX Leader

Although human-centered design has been around for some time, the skill of translating the principles to create digital products is still relatively new.

A lot of agencies may have UX designers on staff, but the influence of a senior UX leader will make a tremendous difference on the creative standard an agency is able to deliver.

A Portfolio of UX Design Work

If an agency doesn't have at least a few UX-specific case studies, it's fair to assume they haven't done that much UX work.



An Incremental Approach to Design

Experienced agencies will estimate and complete projects step-by-step. This is important for a couple of reasons.

First, it's nearly impossible to perfectly estimate the cost of design work based on a few conversations. Dividing the work up makes it easier to perfect subsequent estimates over time.

Second, any approach that includes feedback will need to be incremental. After an increment is completed, stakeholders and users should provide feedback before moving on to the next phase.

Overall, this approach enables the design team to perform work faster and more efficiently, while also perfecting their cost estimates.

A Team of Specialists

As we illustrated above, the title UX designer actually encompasses a broad range of skills. Different designers will excel at different parts of the design process. You can tell an agency has experience with UX design when they assign an entire team to your project. That's a clear indication that they've invested in a true human-centered process.

Advantages of Hiring an Agency

You Get Access to the Full Team.

Working with a legitimate UX agency means partnering with an entire team of seasoned designers. Their experience will not only guarantee a higher standard of design, but it can also improve your strategy and implementation.

And the price is often comparable to hiring a single mid-level designer in-house.

Good Agencies Use Time-Tested Processes.

Any agency worth hiring will follow tried and true processes that they've refined from years of client work. Whether it's through higher quality research,

risk mitigation through iteration, or simply consistent communication, a systematic workflow will repeatedly deliver value throughout the design process.

Projects Move Faster.

Veteran designers following efficient processes will deliver higher quality work in less time. In contrast, hiring a UX designer — much less an entire team — demands recruitment and onboarding before that one person begins working.

And even then, their capabilities will be exponentially lower than those of an agency.

Projects Cost Less.

Hiring an agency can often be cheaper in the long-term. At DePalma, we've redesigned fairly complex applications for 60 to 70% of the what it would cost to hire just one experienced UX designer full time.

If you do hire someone full-time, it's important to consider what that person will do after they've completed the big UX project that's on your mind right now. Will they have enough work to continue justifying their value?

Agency relationships can be turned on and off as needed, giving you greater control over ongoing costs.

Disadvantages of Hiring an Agency

A lot of Agencies Bullsh*t.

Let's face it. Agencies will say what they have to in order to close a deal — particularly in software development. That leads to a lot of “oh yeah, we can do that,” and other empty talk when you're trying to understand an agency's capabilities.

Agencies who commit too quickly to budgets and timelines should also raise some red-flags for you. Experienced UX practitioners will carefully study your project requirements before proposing anything concrete. If it feels like the process is moving too fast, then it probably is.

Reference the “Must-Haves” section above for guidelines on identifying trustworthy agency partners.

Agencies May Be Less Familiar With Your Industry.

It's common for agencies to specialize in certain industries, and this is true in UX design as well.

However, as long as the firm follows a data-driven, iterative process like human-centered design, they should be able to identify the needs of your users and deliver a solution based on their feedback.

Further, there's a strong body of research that suggests bringing an unbiased perspective to the design of application yields better results. But this requires the agency to actually have in-depth UX experience.

Human-Centered Design at DePalma



DePalma Studios was conceived as a UX design firm. Not as a print agency who pivoted to digital. Not as a marketing agency who's using graphic designers to build a user experience.

Even though we've grown into a full-stack development shop, we have been and always will be a UX design agency.

It's our belief that putting humans at the center of the design process is the only way to solve the complex technological problems facing organizations around the world.

That's why we've used the very same process we've outlined in this guide to help Fortune 500 companies, local governments, healthcare organizations and small startups build applications that their users love.

Think of this guide as our manifesto on the process. We hope it provided some insight on the potential of the human-centered design.

If you have a project you're working on, or if you want our input on a challenge your organization is facing, email us at workwith@depalmastudios.com.

We'll set you up with a free consultation with our Director of User Experience and co-author of this ebook, Pavel Bukengolts.

Sources

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to get a free consultation

with our Director of User Experience.

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