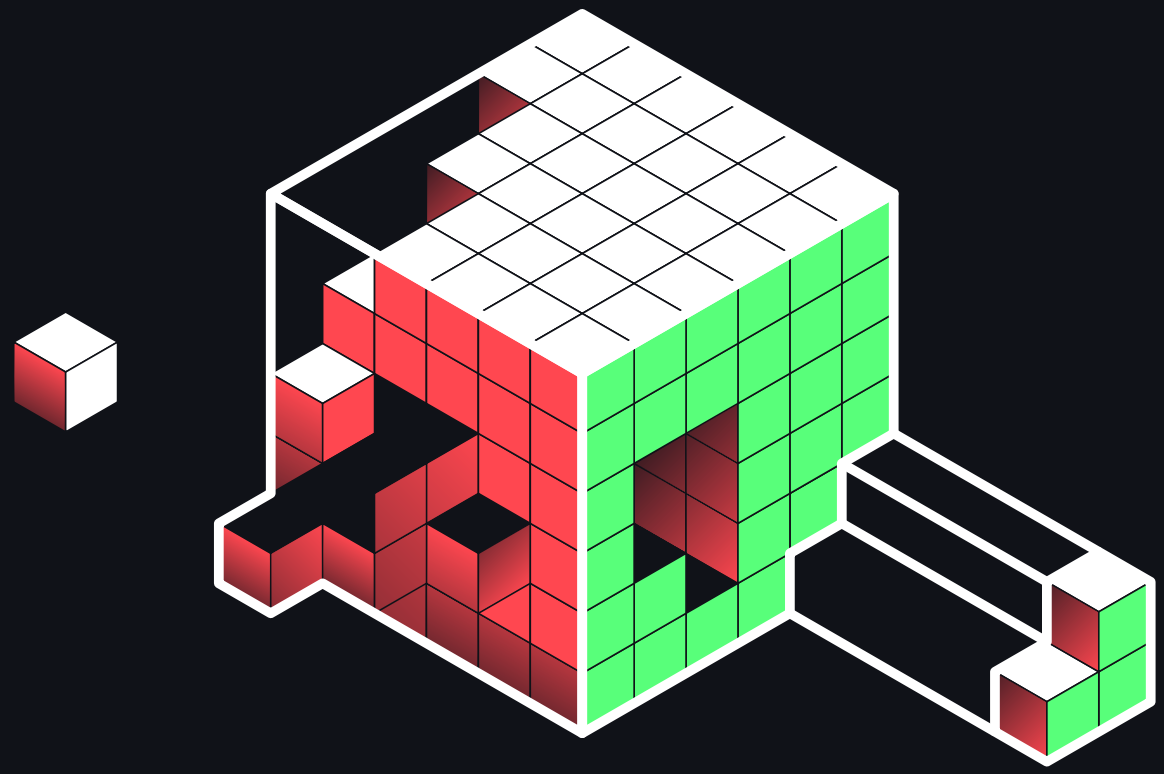
UXPin

The Project Guide to Enterprise Product Design

UX Case Studies From Top Companies



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Index

Authors

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Introduction

B2B products add extra layers of difficulty for UX practitioners.

Engineering-driven product culture. Complex use cases. Products burdened by years of technical and design debt.

The enterprise can certainly feel immune to the principles of good design. I know from experiencing that hostility firsthand.

At the beginning of my career, I was an enterprise designer in a European e-commerce company. Collaborative product design was nothing more than a fairy tale. As part of an IT front-end team, my work was constantly questioned. Interfaces were treated as nothing more than ornaments for code. It took months of hands-on collaboration and walkthroughs to finally break through the barriers.

Almost a decade later, that experience continues to drive UXPin in democratizing and standardizing the design process. We've been fortunate to help companies like SAP, Citrix, Paypal, and others scale their design culture and practice.

In this guide, we want to shine a light on the designers and companies who rise above the status quo. We won't harp on theory. Instead, we'll give you a peek under the hood of real enterprise projects. Whether it's releasing a dashboard feature with 75% adoption rate or redesigning how employees manage their wellness, you'll see the real-life processes that lead to meaningful innovation.

After all, one of the upsides to enterprise UX is the enormous impact of even the smallest decisions. True, you might not be unleashing the next Uber or Pinterest on the general public. You will, however, undoubtedly improve employee well-being and the bottom line by eliminating just one redundant task.

All the collaboration, technology, and cultural issues in enterprise design are ripe opportunities for designers with patience and persistence. In many ways, the enterprise UX is our wild west.

And when faced with complexity in uncharted territory, what better way to learn than through the the example of others?

Marcin Treder,
CEO of UXPin

User-Validated Dashboard Design

Design: Edward Nguyen (internal team)
Company: LiquidPlanner

A cloud-based project management system, Liquidplanner needed to help users create dashboards more quickly.

The old process required creating dashboards, and all the widgets within, completely from scratch. Since more dashboard use correlated with higher customer engagement and lifetime value, the product team set out to create a new dashboard template feature.

The team's goal was creating a "one-click solution" where the user could create a useful dashboard right away without any configuration.

In four months, LiquidPlanner shipped a new dashboard template feature, impressed their most valuable customers, and saw significant adoption rates and business results.

Below, you'll see exactly how they did it.

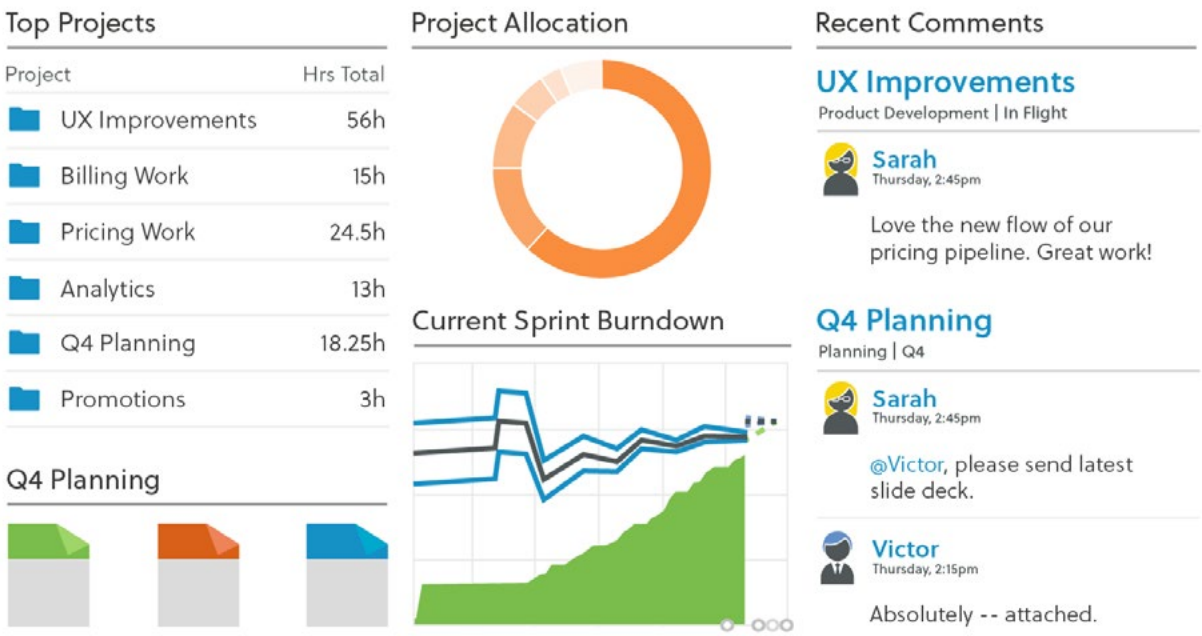


Photo credit: LiquidPlanner

Setting the Context

Before getting into the actual process, let's take a look at the context of the project.

1. **Primary Personas**

   LiquidPlanner serves three primary user groups:

   1. **Product Managers** – The champions of the product, the people that "live and breathe LiquidPlanner." These decision-makers ensure the team uses the product to track time, collaborate, and use the features that help them.

   2. **Functional Manager** – The other decision-makers, such as a UX Manager, that hold sway over the team and keeps them accountable.

3. **Frontline Contributors** – These are the people who are actually doing the work. These project contributors may not have chosen LiquidPlanner themselves, but they use it every day for their projects.

Designer Pro Tip

When creating enterprise personas, examine the functional areas within the product (create, edit, review, submit, approve and reject). Then, create personas that address each area (hence, "functional persona").

To help explain the process, we'll use a "Project Creator" persona for a hypothetical project management platform:

1. **Collect information from users representing each functional area**. In our example, you'd want to speak with project creators from various industries. Don't worry so much about their demographics. Instead, ask them about their task needs: how they go about creating projects, the project format they need, etc.

2. **Map out the workflow for each industry**. This can be a user journey map, a workflow diagram or post its on a wall that show the steps in the user's workflow.

3. **Identify common themes**. Examine each industry's workflow for common themes you can highlight. In the case of "Project Creator", you'll probably find that all users need to upload assets. Another theme could be referencing or linking to existing assets in their project library.

4. **Build your functional persona**. Once you've identified themes that are most common to all the industries, feed this information into your persona. You can use the themes to build the story around key things like user needs, user roadblocks and user expectations.

In terms of the metric for identifying common themes, look for themes that occur in at least 50% of the workflows for all industries.

Germaine Satia,
UX & Product Consultant at Touchpoint Dashboards

2. Project Goals

The following quantitative and qualitative goals would define project success for the dashboard template feature:

- Increase usage of dashboards within first month of release. Using Heap to track in-app events, they discovered the friction in creating dashboards was holding the whole product.

- Grant immediate access to project critical information. It wasn't just about quality, it was about speed. LiquidPlanner needed to streamline access to data.
- Finish the project in three months. Starting in Jan. 2016, the project deadline was set at an early April launch, giving the team only a few months to craft the right solution.

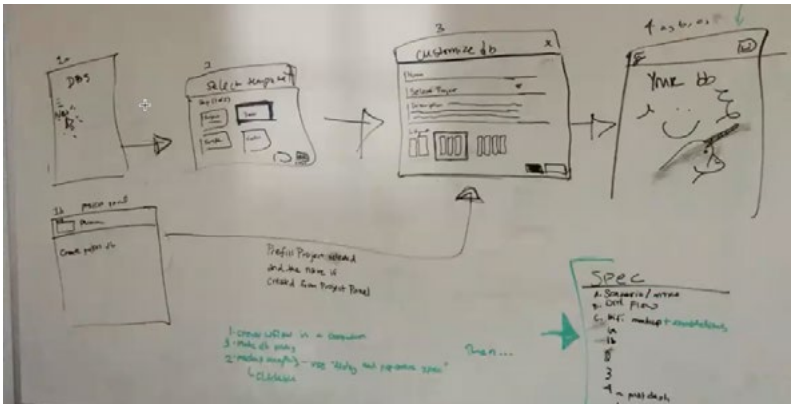
Stage One: Discovery & Concepting

(early Jan 2016)

Before the actual legwork started, the PM team gathered for a brain-storming/sketching session. The lead program manager, UX manager, and UX designer Edward Nguyen were all present.

Examining in-app patterns from Heap, the team categorized the most commonly-created dashboards:

- Project Dashboards
- Team Dashboards
- Portfolio Dashboards.

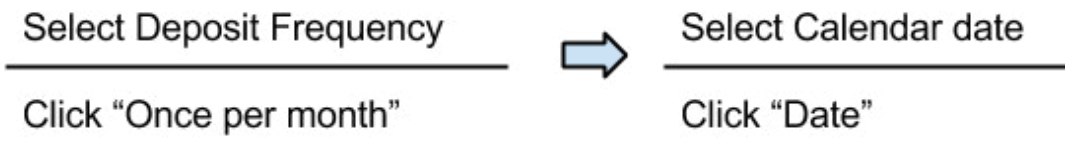


From there, they sketched out their ideas on the whiteboard. These mostly involved user flow charts, drawing out the pace of the experience screen by screen. The user flows formed the foundation that would eventually grow into the perfect solution for the dashboard problem.

Designer Pro Tip

When creating user flows, I highly recommend the shorthand approach used by Ryan Singer at Basecamp. The technique helps you design a basic user flow without diving into any elements.

Ryan's approach treats flows as ongoing conversations. For a hypothetical banking app, we can create a shorthand for an auto-deposit flow that looks something like this:



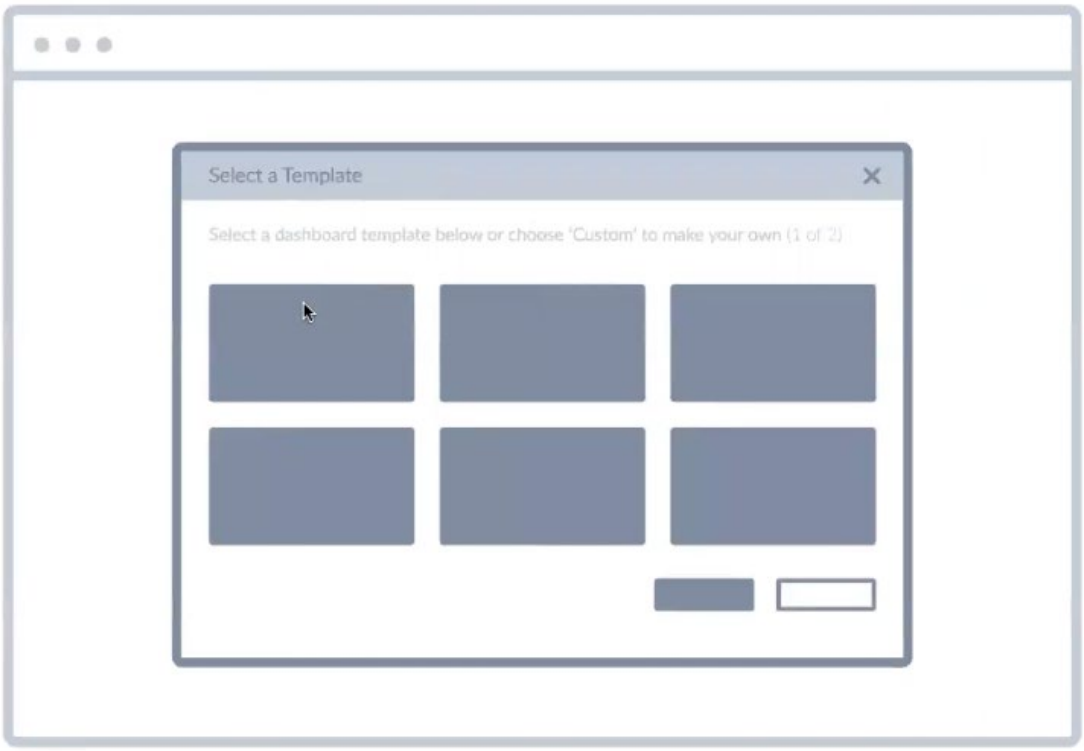
To see how Singer demonstrates shorthand for Basecamp and how he can illustrates complex flows with this outlining process, check out A Shorthand for Designing UI Flows.

Marek Bowers, Lead UX Designer at Dell

Stage Two: Creating & Testing Mid-Fidelity Flows

(early Jan 2016)

Immediately following the whiteboard session, Edward used Adobe Illustrator to create mid-fidelity versions of the white board sketches. These mid-fi flows become the key to the intermediary stage of internal testing before hi-fi prototyping and testing with users.



For initial, early-stage feedback, Edward showed the mid-fi user flows to 5-10 coworkers outside of the product team. He administered these casual tests individually, explaining the problem and collecting feedback on the proposed redesign for the dashboard creation process..

The informal testing also gave him a chance to answer his own personal questions and concerns. Ultimately, the tests proved successful: the absence of bad feedback is still good feedback.

Designer Pro Tip

Show your initial design ideas to people around the office to gauge the customer expectations early on. As Edward suggests, go outside the product development team to avoid bias and gain a fresh perspective. You don't have to go crazy – Edward tested his flows with just 5 employees, including sales, marketing, and support.

Ben Kim, User Researcher at UXPin

Stage Three: Hi-fi Prototyping

(mid-Jan – Feb 2016)

Building on the mid-fidelity user flows and internal feedback, the team was ready to create a functioning version of their design.

1. **Creation**

   A wireframe or user flow shows how the product might work. A prototype *is* how it works.

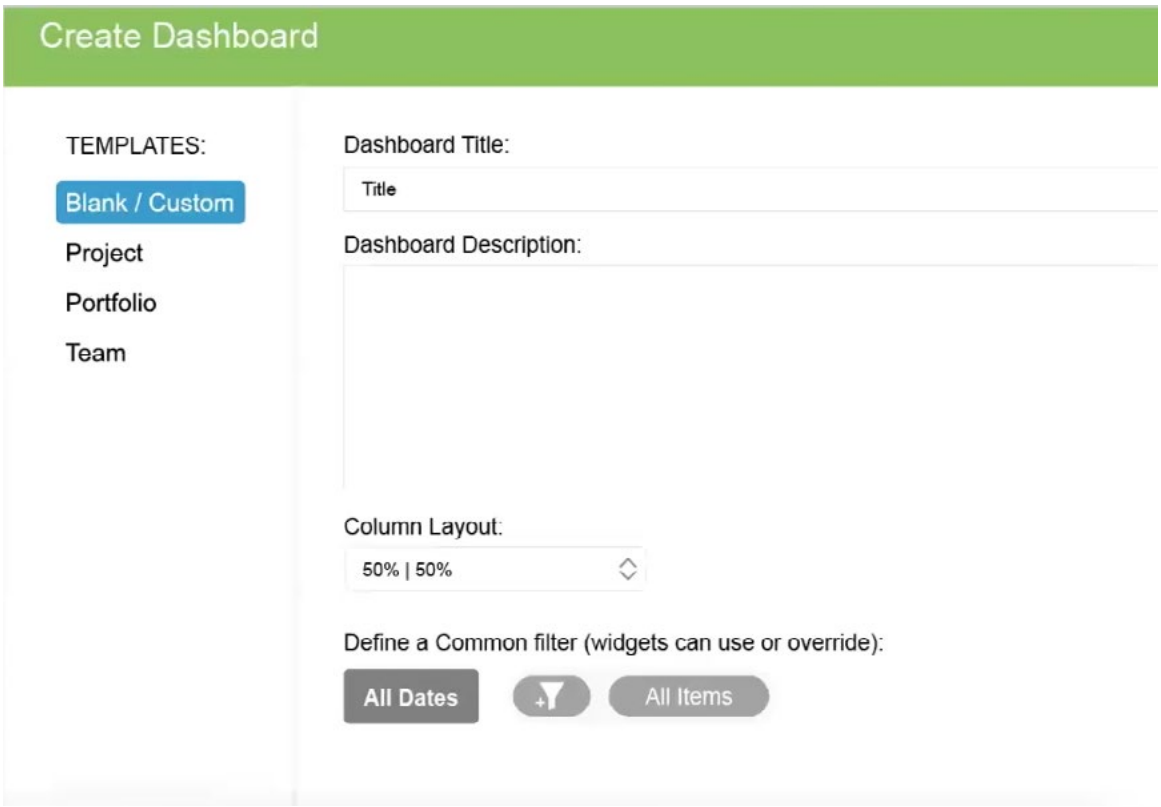
Since the goal of creating a prototype is to test your design decisions, the first step was outlining desired insights in a usability testing plan. This document prioritized test goals for the most important user actions:

- Validate that people know how to create a new dashboard.
- Validate the 3 default testing templates are useful options (Project, Portfolio, Team)
- Validate that created dashboards are discoverable from within the project.
- Determine what default widgets are most useful in a dashboard template.

The usability testing plan also included sections such as the test script and a list of user tasks (i.e., “Can you make a project dashboard from the Project template for Project A?”).

At this stage, the team then did some data mining to inventory and tally which widgets to include in which templates. This made the first prototypes closer to the final product.

When it came time to build the actual, interactive prototypes, Edward used UXPin “because it helps us simulate real-world customer scenarios.” In his own words, “It’s powerful and simple enough to let me quickly create and test complex interaction models. I can prototype on Monday, test it Tuesday and Wednesday, and show results on Thursday.”



Hi-fi prototype of the first screen in the flow for creating a dashboard template.

Since the new design needed to be intuitive without confusing current users, Edward actually chose a left-handed tabbed format versus the multi-step process the team initially sketched. He realized the choice was simpler for his team to implement while also benefiting users.

Designers wouldn't need to create playful icons, developers wouldn't need to build a multi-step wizard, and users could select their dashboard type faster with fewer steps.

As Edward demonstrates, while designers don't need to know how to code, they should always understand the technical implications of their design.

Designer Pro Tip

If the product already exists, as is the case here, jumping to hi-fi prototypes after sketching carries less risk of wasted work. If you're building and testing a completely new product from scratch, you usually want to start with lo-fi prototypes (to validate concepts) and iterate to hi-fi (to validate visual designs).

Sunita Reddy, VP of Product at UXPin

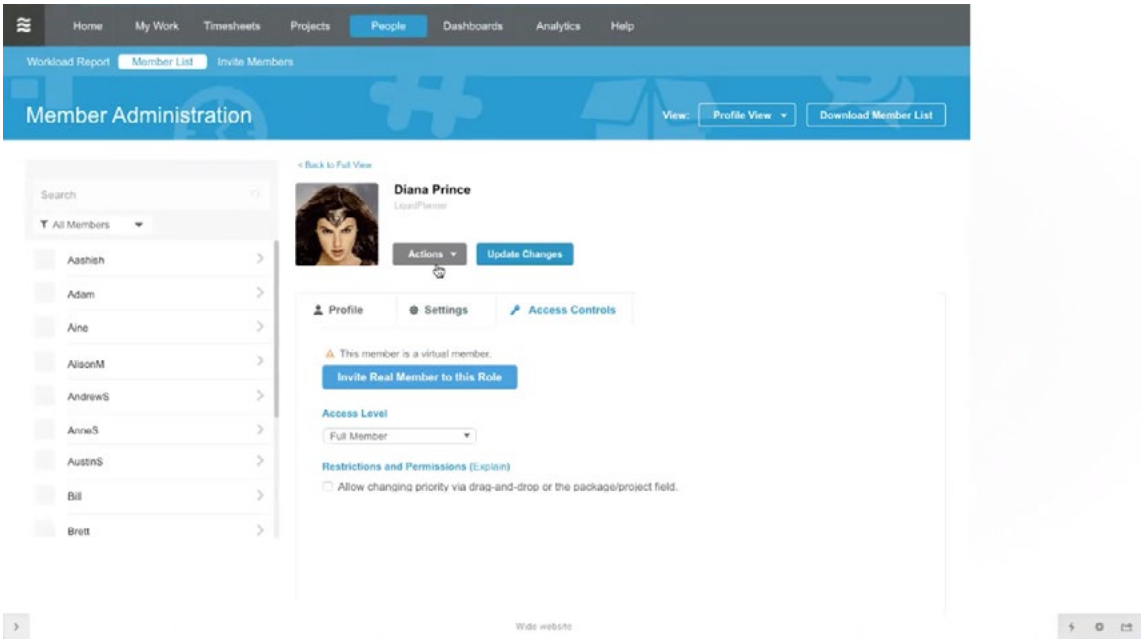
2. Usability Testing & Iteration

The team conducted remote, moderated usability tests with 14 people through Join.me.

Edward moderated the testing sessions, while another team member observed and took notes. They tested two main scenarios: creating a dashboard, and finding an existing dashboard in the project.

Test results were quickly iterated into the following version, which was then likewise tested and the results reiterated, until the team came up with the proven, ideal design.

"A user even mistook one of my hi-fi prototypes as the real deal, telling me to thank our dev team." said Edward.



Hi-fi prototype users believed was already fully developed.

Usability testing revealed the design worked well as a system:

- Users found the tabbed layout easy to use and understand when creating dashboards from templates.
- Users mentioned the default testing templates were useful and matched their needs.
- While most users found the default widgets useful, some mentioned how they'd prefer different widgets due to personal preferences. For example, some users didn't find the "Remaining Work" linechart widget useful. Others wanted the ability to save their customizations to the templates.
- Users did experience some difficulty in accessing a dashboard once created.

Edward spent considerable time with the program manager to map out the patterns of feedback to consolidate insights. It's a skill in itself to separate one-off, outlier comments from generally-applicable and actionable feedback.

To improve findability of newly-created dashboards, Edward decided to increase negative space around the "View Project Dashboard" label inside their details panel view.

Further improvements, such as the ability to save widget edits, were earmarked for later testing, since they were fell outside the scope of the MVP.

Designer Pro Tip

To synthesize and share thematic insights from user testing, I prefer the rainbow spreadsheet exercise. Instead of a linear usability report, Tomer Sharon's spreadsheet helps teams quickly visualize patterns of feedback.

> In fact, our whole team collaborated on the spreadsheet during a Yelp redesign exercise we conducted back in 2014 (results below). Definitely consider this tactic in your next project.
>
> 
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>
> Marcin Treder, CEO of UXPin

Stage Four: Development and Live Launch

Feb – April 2016

Following the Agile process, development sprints immediately followed the design sprints.

Even as Edward's team was still testing prototypes, developers were already building the validated iterations. "The collaborative hi-fi prototypes and testing insights gave our developers enough confidence to implement our design decisions directly in code," Edward said.

Communication within the team improved with daily standups, where Edward reported any new usability testing insights to developers.

Because the new feature tested well, LiquidPlanner launched the dashboard template feature live to users without beta testing.While

the team runs beta tests for larger features, they needed to get the feature out the door since dashboard creation was so difficult before.

Thanks to efficient hi-fi prototyping and close collaboration, the team launched the new feature on April 9, 2016 on schedule and within scope. The initial results are promising:

- Of the 17,000 dashboards ever created in LiquidPlanner, 1700 (10%) were created 2 weeks after launch.
- The template feature is responsible for 75% of new dashboards created in the app.
- A majority of large enterprise customers already use and enjoy the new feature, as it facilitates their large, complex projects.

“I was blown away by the numbers,” said Edward. “It was great to see that something I worked on was this popular with users.”

Conclusion

Based on LiquidPlanner’s success, keep in mind these learnings for your own product design process:

- Don’t get overambitious on redesign projects. The new design needs to feel consistent enough for old users while also appealing to new users. To achieve this delicate balance, keep everything as simple as possible.

- For the sake of efficiency, going straight from sketches to user flows and hi-fi prototyping is fine as long as you test thoroughly. For an existing product, hi-fi prototypes carry less risk since visual design standards are already validated.
- On a compressed timeline, make sure designers work one sprint ahead of developers.
- Maintain scope discipline in your MVP. As Edward did with a “Save Widget Edits” feature, don’t be afraid to table new ideas discovered during testing for after launch.
- With detailed hi-fi prototypes and close collaboration, developers can implement changes in code with less risk of misinterpretation.

Data-Informed Lean UX

Design: Austin Knight (internal team)
Company: HubSpot

HubSpot's home page is visited by more than 4 million users per month, serving 18,000+ companies across 90+ countries. Their home page is the lynchpin for the company's entire online ecosystem. So when the company grew massively from a private company to a multi-product, public global organization, a homepage redesign was in order.

And it needed to happen quickly, in time for a grand release of a whole new product line at HubSpot's annual industry event, INBOUND, just 1.5 months from the project kickoff.

UX Designer Austin Knight led the project, supported by a team of three (visual designer, developer and marketing manager). Outside the immediate team, Austin also worked with six others for product positioning, copywriting, and technical development.

This is the story of how a designer applied the focused research, collaboration and unwavering customer focus of Lean UX to deliver bottom-line results on a tight schedule.

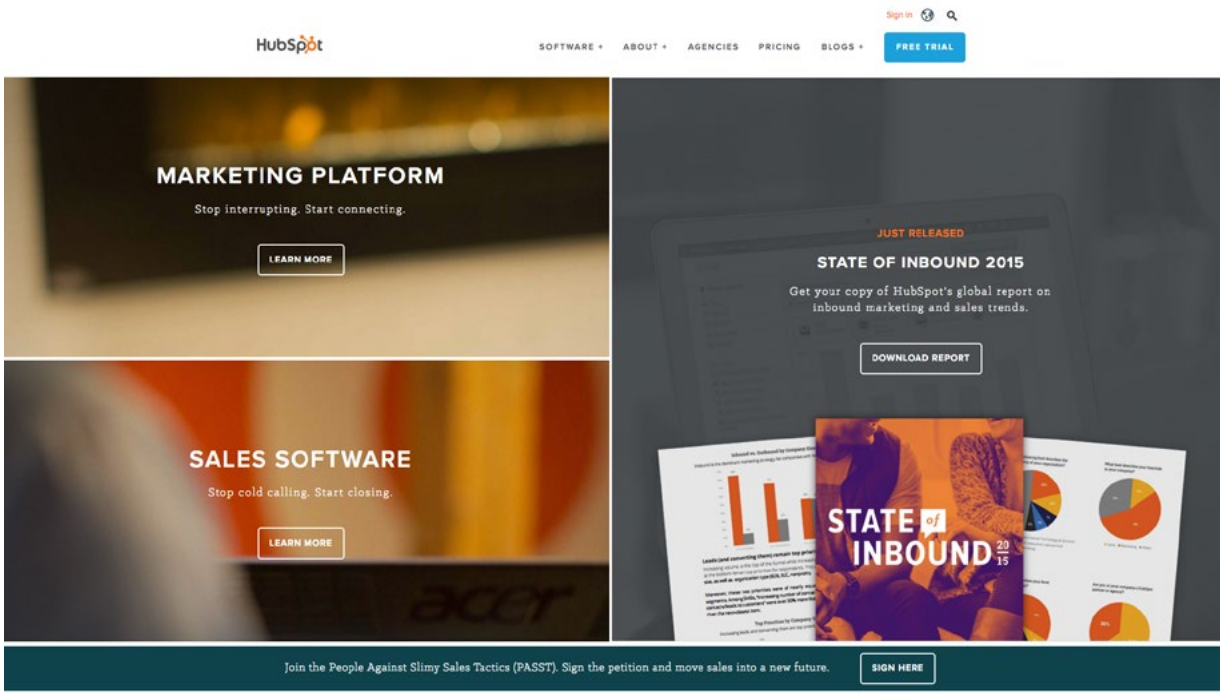


Photo credit: HubSpot's redesigned homepage

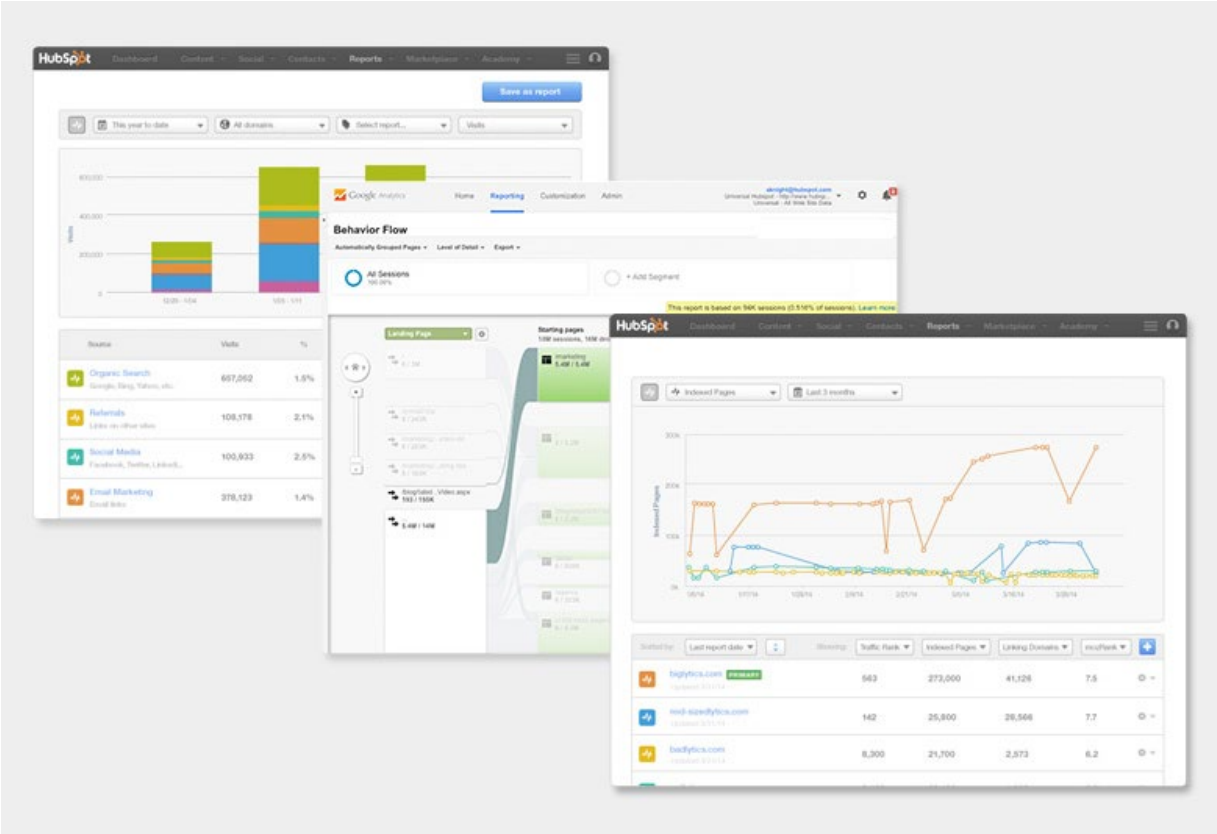
Step One: Deep Research and Constant Testing

The HubSpot project began right when Austin was introducing the more iterative, Lean UX approach to his team. Created by Jeff Gothelf, Lean UX aligns business strategy with lightweight design process through constant "learning loops" (build – measure – learn).

In this case, the first step of this work was to dive into analytics and user research to quickly validate assumptions.

1. **Analytics & Heat Mapping**

   Unlike some processes where a marketing analyst might provide the design team with web data insights, Austin dove right into the data himself. Massive amounts of data were available in HubSpot, Google Analytics and Mixpanel. The main challenge was sorting through the data to reveal meaningful patterns.



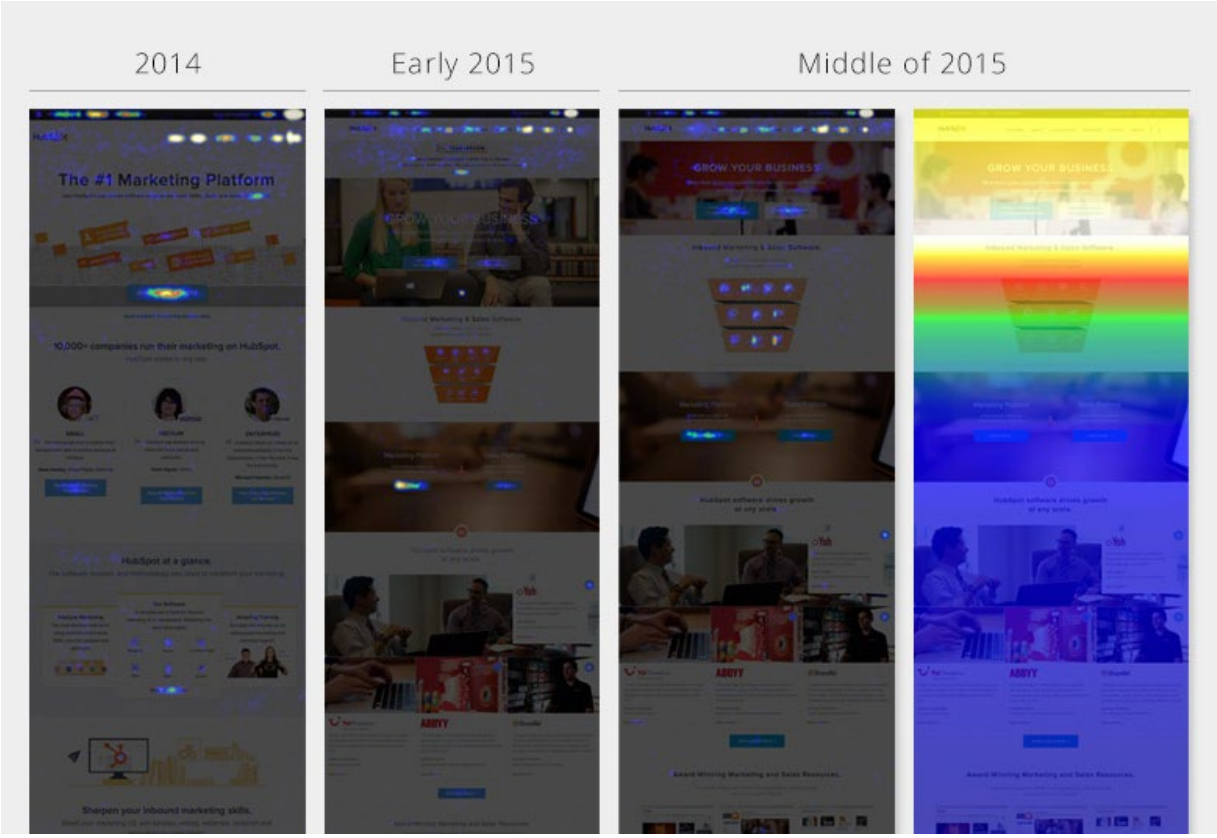
   Austin discovered a significant number of users exhibited the following behaviors:

   - Moving straight from the homepage to pricing (pre-disqualifying themselves from the product benefits)
   - Moving straight from the homepage to an FAQ (signalling they weren't finding the answers to their questions)

- Moving straight from the homepage to site search (usually searching for product queries, meaning they weren't quickly getting the information they needed).

It was clear that, despite being in-depth, the home page lacked critical information that decreased conversion.

Austin also examined heat maps and scroll maps conducted with 25,000 users each, supplying 467,308 unique data points. Ranging from several years back to present time, the maps helped Austin further understand where disengagement was happening, including discovering that only 25 percent of users would scroll on the homepage.

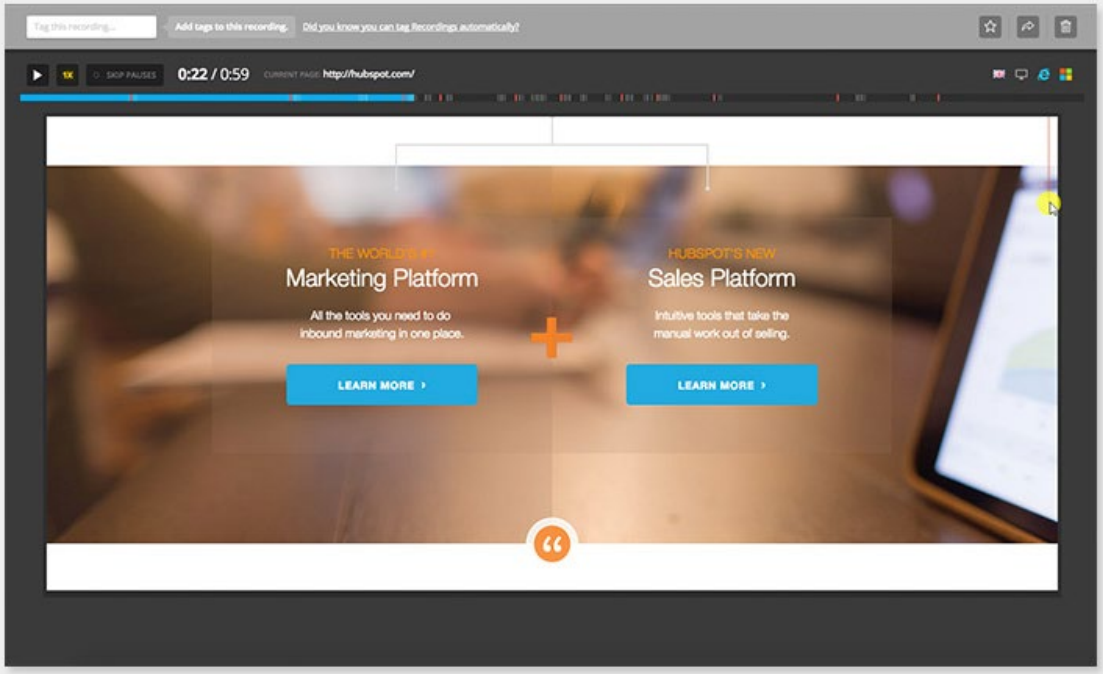


2. **Session Recording**

   Finally, user session recordings acted as hybrid quantitative/qualitative research.

   Since the recordings were live, anonymous, and undetected, the results were fairly reliable since they represented user behavior in a natural environment.

   Session recordings ran continuously throughout the whole design project, providing a stream of data to validate user interviews and usability tests.



3. Qualitative Research

While quantitative research helps you see the “what”, it doesn’t always reveal the “why”. To dive into motivations behind behavior and UX requirements, designers need to interview users and stakeholders.

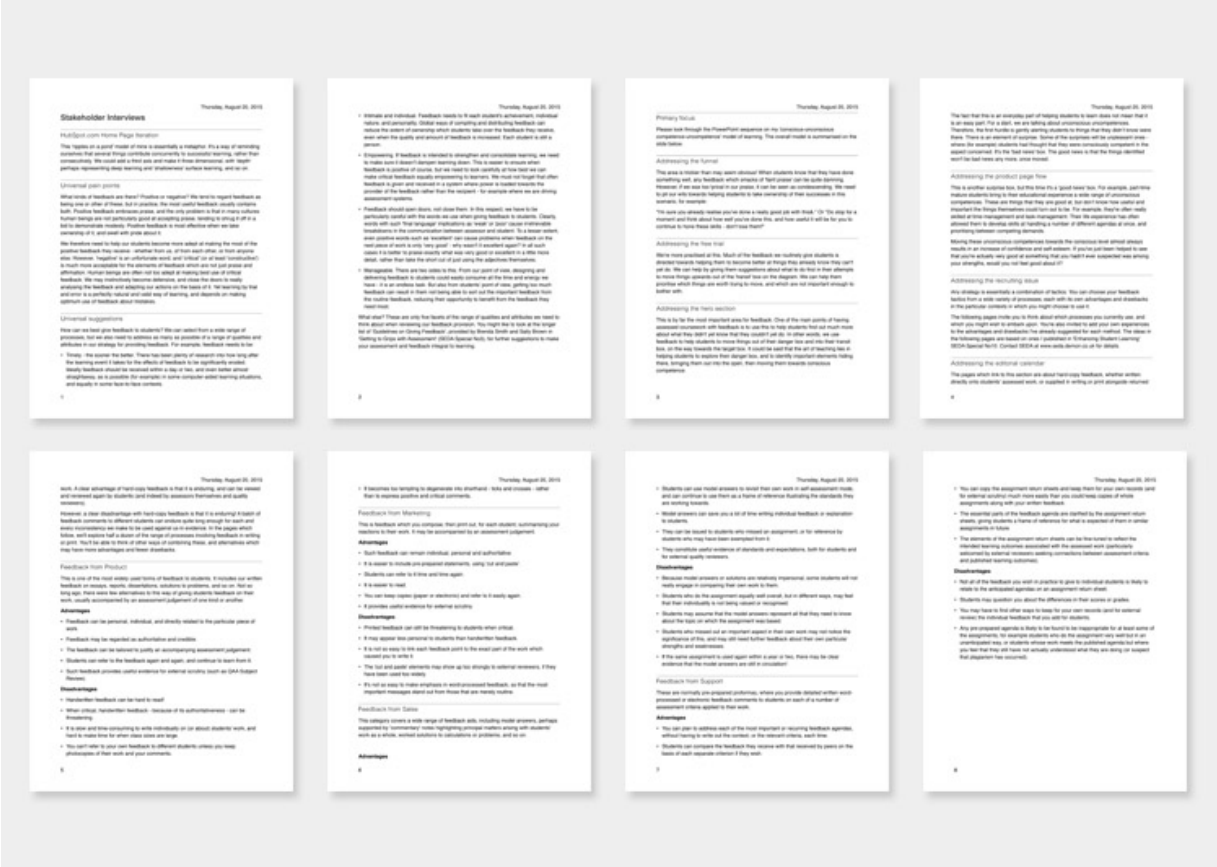
1. **Customer Interviews**. Because 10% of the HubSpot homepage traffic consisted of HubSpot customers logging in or searching for resources, the redesign could not neglect such a valuable user group.

   Austin interviewed customers not just to validate the other sources of data, but also as a basis for determining how the new homepage could deliver dynamic content to specific segments.

   By developing a rigorous user interview process and tying questions to outcomes, he gathered highly focused feedback.

2. **Stakeholder Interviews**. Since this project would literally change the digital face of HubSpot, Austin also interviewed executive leadership and product, marketing, sales, and customer support teams.

   He then cross-referenced the results with feedback from user interviews, support call transcripts, unsolicited HubSpot redesigns, tweets, emails, and even conversations that Austin had with attendees at his own speaking events.



“Data-inspired, human-centered design – that’s what we do,” Austin said. “Designers need to interpret data on their own and objectively justify their design decisions whenever possible. We work in an industry where designers are becoming increasingly empowered by quantitative and qualitative data. As such, we generally don’t make decisions based on opinion or what someone ‘likes’. There has to be more to it. The true magic of today’s designer is in how they can interpret implicit and explicit data, and thoughtfully transform that information into design solutions.”

Designer Pro Tip

For enterprise UX research reports, summarize your findings with a one-page online document from a simple template with a few key sections:

1. **Background**. This includes any background documentation about the project or the team, or sometimes just a single sentence to set the stage, such as “We'll be doing 1:1 usability testing on the [...] application the week of March 7th in the Palo Alto office.”

2. **Methodology and Schedule**. This is a brief explanation of the methodology (what kind of research, how many users, the target market, the location) and a table with the schedule that fills up as users are scheduled. This gives stakeholders an opportunity to come back to the same place to see the progress of the planning.

3. **Goals (overall and specific)**. This sections is a brief overview of what the study will cover, and serves as a good outline for the research script for when the time comes to write that.

4. **Outcomes**. Very importantly, this states what we will "get" from the research. For me, it usually includes 3 statements:

   - A prioritized list of recommendations to improve the usability of the application.
   - Product recommendations to increase the utility of the applications.
   - Product Marketing recommendations to help overcome possible barriers to adoption.

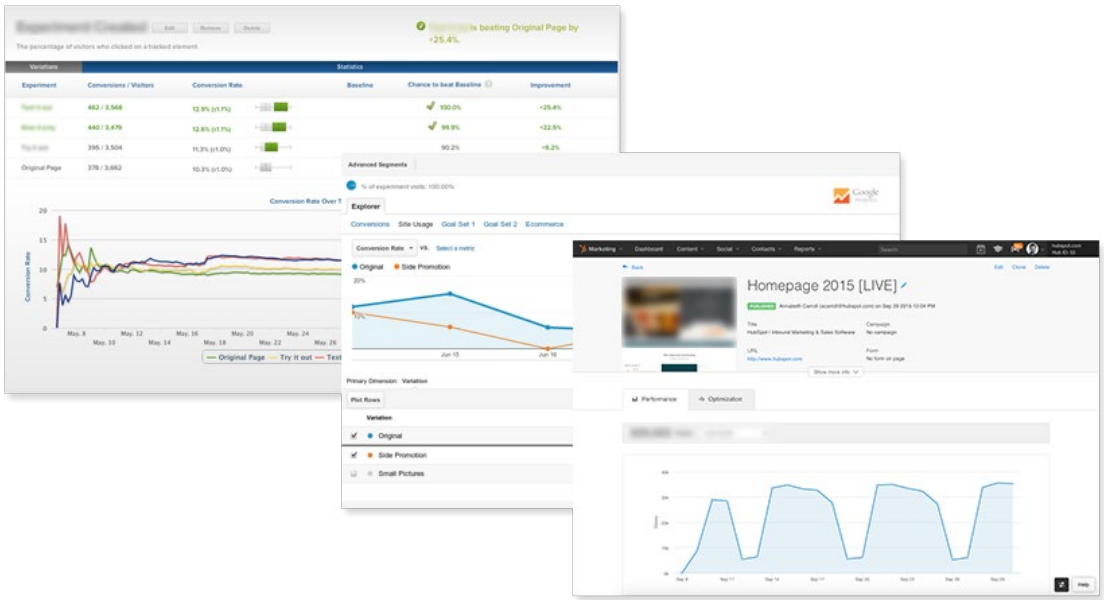
The short document allows everyone in the organization to comment on and eventually agree on the purpose of the research. This not only helps with script writing for interviews and usability tests, it also ensures that no surprising assumptions from stakeholders will surface later on when the research is all done.

Rian van der Merwe, Design Director at Jive Software

4. Multivariate Testing of Small Tweaks

Finally, based on all the initial research, Austin was soon able to quickly design a few incremental changes for validation with multivariate tests.

The tests helped qualify or disqualify specific design elements, which would then influence the entire team's strategic decisions as they moved to the full homepage redesign.



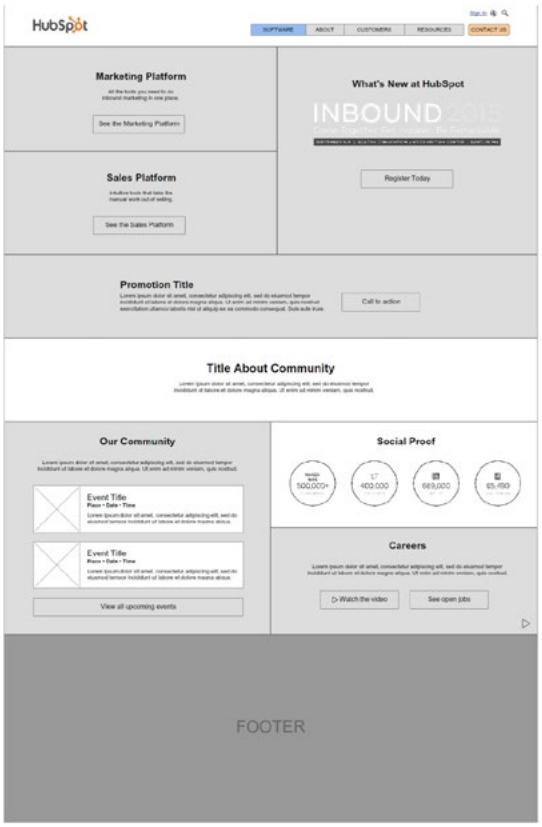
Step Two: Building a Living Design

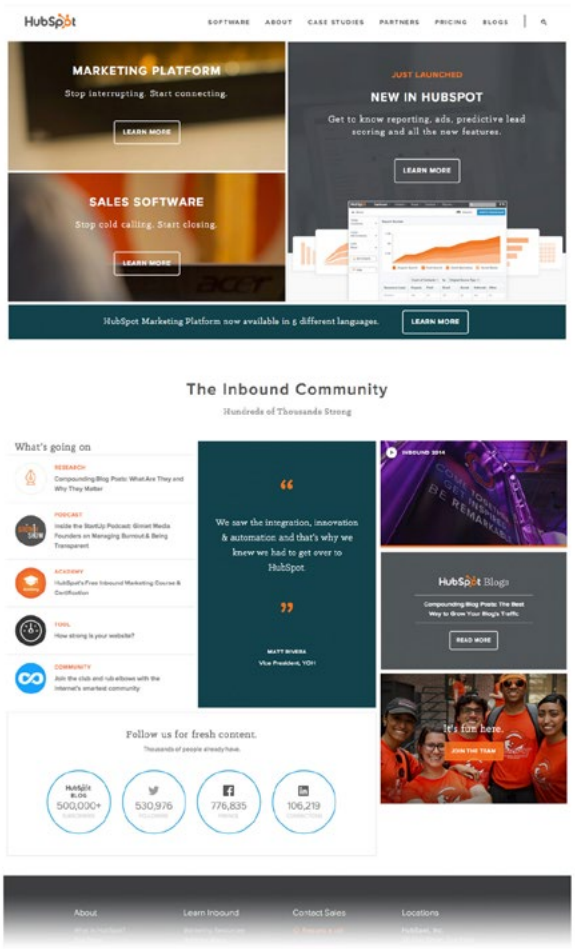
Austin followed a structured process of "starting broad, testing, learning, iterating, and narrowing in on the optimal solution with each round".

1. **Lo-Fi Prototyping**

   Once the team decided on three major variations, they created lo-fi prototypes and added fidelity as needed to present to stakeholders for feedback. Once a major direction was selected, Austin remained in the lo-fi stage for multiple iterations before moving on to visual design.

   In fact, the lo-fi prototypes bear a striking resemblance to the final product, given all the time spent gathering feedback and direction from users at this critical juncture.





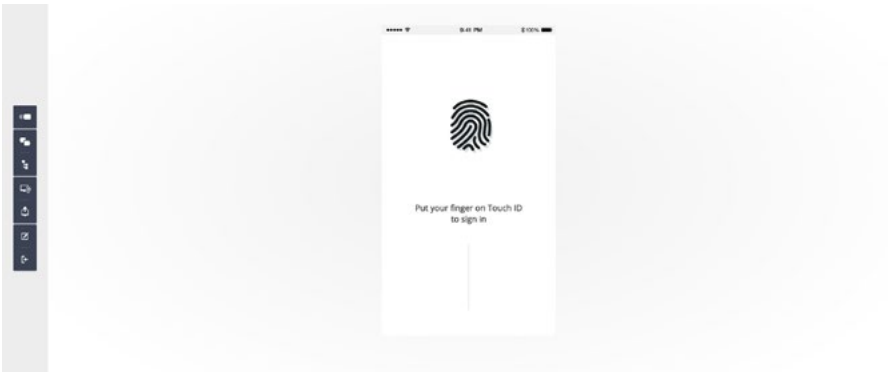
"We tested with users throughout, from testing paper prototypes to working with our wireframes and on to visual design," Austin said. "The voice of the customer was present throughout the process. As a designer, this extra voice in your ear is critical. It doesn't make all the decisions for you, but it helps you find your direction."

Designer Pro Tip

Your first prototype should build just the core user flows. Focus on the small set of functions that deliver 80% of your product's value.

For example, if you were creating a mobile banking app like what you see below in UXPin, the first prototype must build out the flows for primary functions such as:

- Logging in to the app
- Reviewing monthly statements
- Paying off monthly credit card balance
- Redeeming rewards points
- Disputing payment claims



Created in UXPin: Lo-fi login screen of mobile banking app

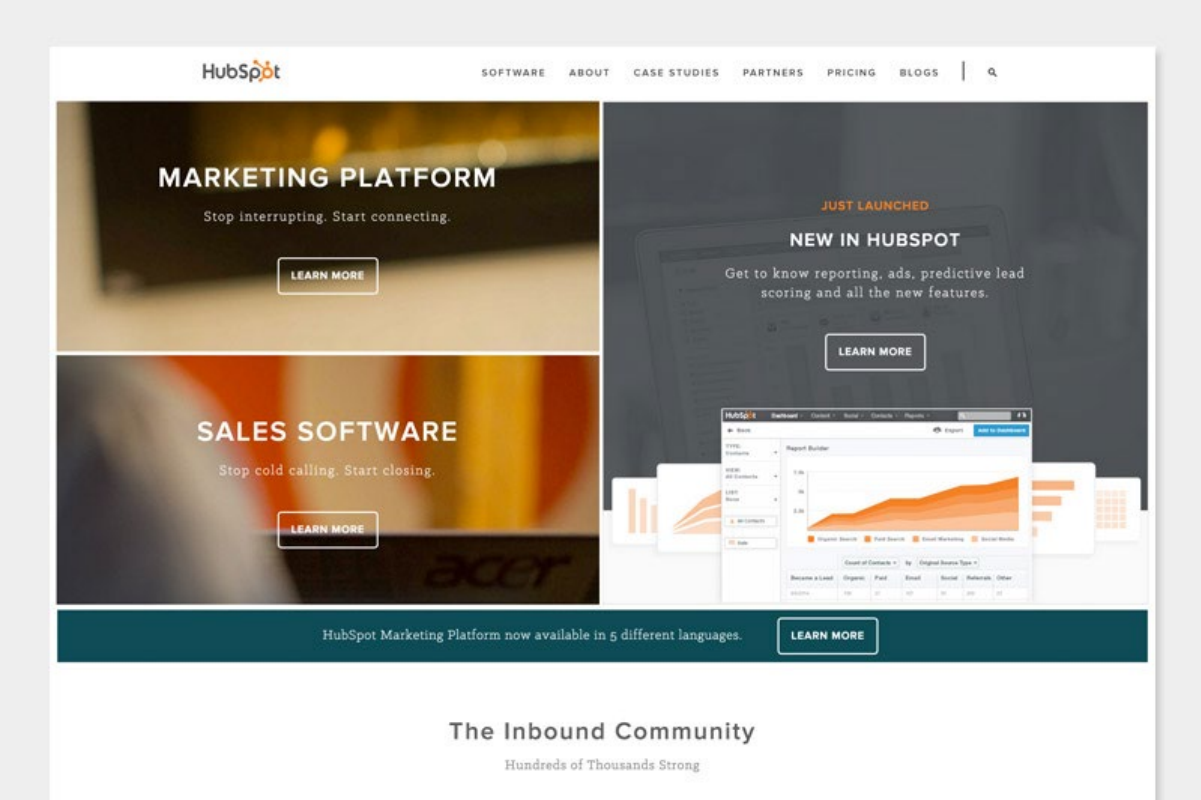
Ben Gremillion, Content Designer at UXPin

2. Mockups

Austin worked closely with his visual designer.

It's also important to note that Austin was already discussing the design with his developer at each step of the process. While they wouldn't begin coding extensively until the hi-fi prototyping, they all worked on interactions throughout, ensuring the entire team was on the same page.

The team created a modern aesthetic with bold colors, HD imagery and an atypical grid structure. This grid structure was inspired by the need for the new homepage to represent a "living design". The grid-based, modular structure scales well across devices, content could be easily changed or moved and key sections could be updated with content inspired by stakeholder and user suggestions.

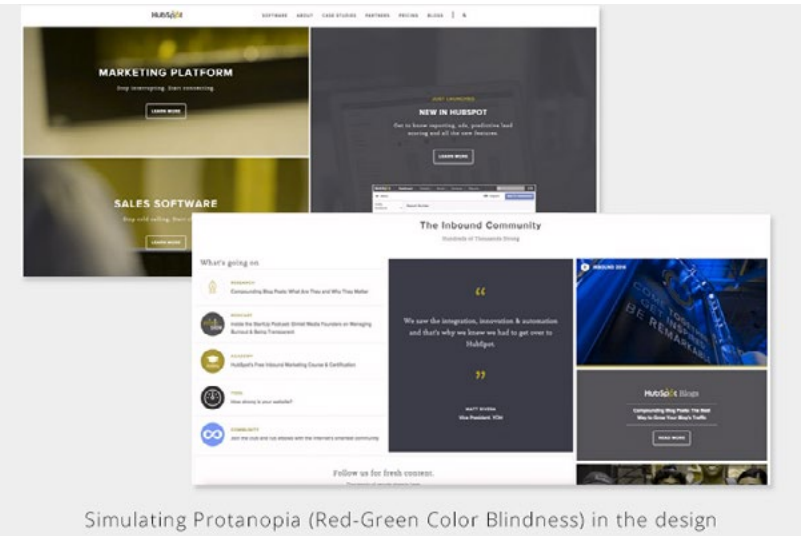


Another interesting element of the atypical grid structure was the photo framing.

The team took a very unique set of photos intended to fit perfectly into the structure, allowing the off-hover state to show an out-of-focus section of a photo that would expand out into the right grid element on-hover, revealing the full photo and additional information.

The photo treatment became a distinctive design element and interaction that greatly increased user engagement. The team also developed dynamic content personalized to the user, which was revealed as a major opportunity in early customer interviews.

Finally, since 16% of HubSpot users access the site via mobile and more than 19% of the U.S. population has specific accessibility needs, compatibility and accessibility elements were critical to the design and accounted for in every step of the process, including the code.



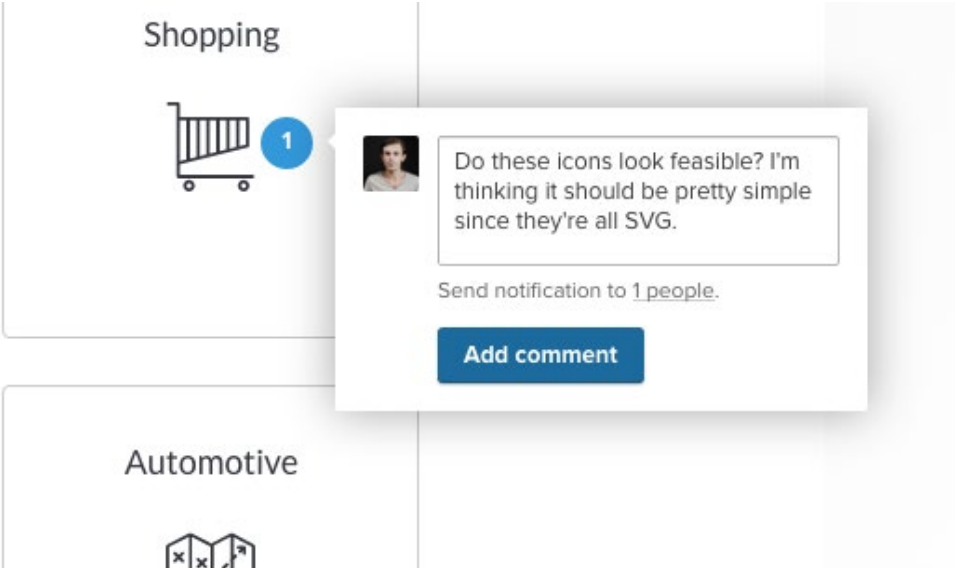
Simulating Protanopia (Red-Green Color Blindness) in the design

As with all other aspects of the project, the mobile and desktop versions were iterated on together on a parallel path.

Designer Pro Tip

Communicate with your developer as early as possible to decide on the proper mockup assets. Don't be fooled: simple visual decisions for designers may create complex problems for developers.

For example, different-sized icons can wreak havoc later.



Created in UXPin: Collaborative mockup from a Yelp redesign exercise

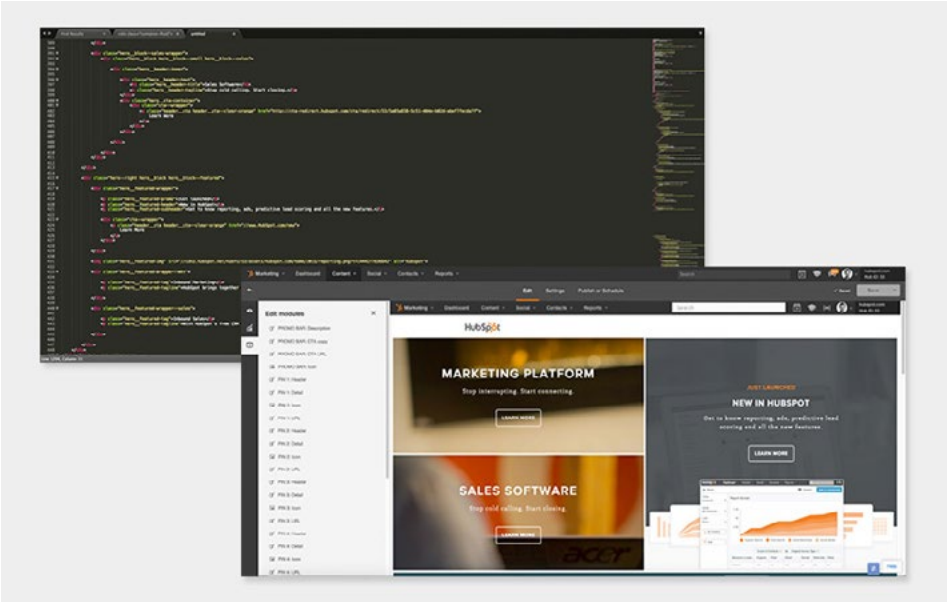
A developer will need to generate a bunch of SVGs with different heights. If they're aligned to the top or bottom of the screen,

> they won't look consistent. Developers either need to redo the assets or create a slew of specific CSS code to address each individual inconsistency.
>
> Check in regularly with developers. Don't just throw assets over the wall and hope they stick.
>
> Kamil Zieba, Chief Design Officer at UXPin

Step Three: Coding and Testing

The next step was building clean code, using the company's own CMS.

Austin, his visual designer and his developer worked hand-in-hand to ensure the code was compatible across all devices, QA testing their prototypes on a regular basis.



The team tested the site across devices and resolutions in multiple versions of Chrome, Safari, Firefox, Internet Explorer, Edge, Opera and Yandex. The team used BrowserStack to emulate the site on real devices and, since they knew they percentage of their users on each platform, they were able to prioritize fixes according to audience size and criticality.

Step Four: Constant Testing and Iteration

The new site went live, as planned, on stage at INBOUND, premiering as the new products and features it was built to support were announced by the company's co-founders. The launch was a huge success.

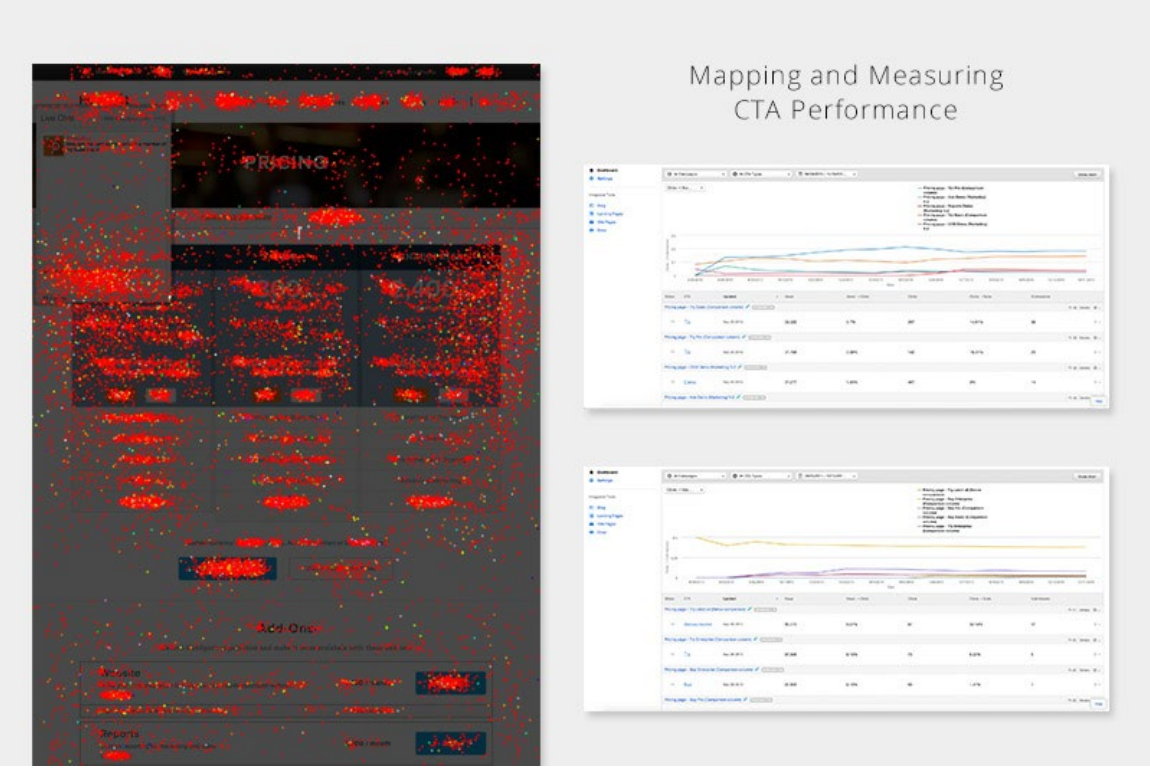
As Lean UX practitioners, however, the core team couldn't just rest on their laurels.

The team cross-referenced live site data in Google Analytics and HubSpot, paying close attention to the following metrics:

- Conversion rate
- Submission rate
- Drop-off rate
- Goal completion
- Navigation summary (origin page and destination page)
- Specific search Queries.

The team only examined vanity metrics like bounce rate and time on page to create context for the core KPIs mentioned above.

To continue optimizing the design, the team ran more heat mapping tests (25,000 users in multiple sessions) and more usability tests.



Designer Pro Tip

I highly recommend Google's HEART metrics framework for measuring UX. Here's how we use the framework:

- **Happiness** – The overall attitudinal satisfaction or delight that a user feels in relation to your product. We use net promoter score (NPS) as a Happiness metric for UXPin.
- **Engagement** – The degree to which a user responds to, or is involved with, the product. Examples include: visits per week, actions per visit, etc. We use Kiss Metrics to track custom events triggered by different features (e.g. "Created prototype in first day of trial").
- **Adoption** – The number of new users (or uses of a feature) within a set amount of time. After we released custom libraries, we measured use over a 6 month time period.
- **Retention** – The number of users that continue using the product within a certain time frame. Our product team and customer success team both track churn on a monthly, quarterly, and annual basis in a shared Google doc.
- **Task Success** – How well a task is completed, how quickly, and the amount of errors committed on average when completing the task. When testing lo-fi prototypes, we find it more helpful to measure task success qualitatively by tracking patterns in user feedback. Once you're testing a hi-fi prototype, however, you can accurately track task success with a usability checklist.

Kamil Zieba, Chief Design Officer at UXPin

Result: Lean UX Success in the Enterprise

This was the first project that Austin and team completed using the full Lean UX process, combining data and form together to deliver quick business outcomes. And because the resulting site is as collaborative and flexible as the process itself, iterations can be made easily and often, keeping the design fresh and responsive to whatever user needs and business goals might arise.

While we can't dive into all the numbers due to NDA, we can reveal the following post-launch business results:

- Increased engagement in critical CTAs
- Increased engagement with navigational elements
- Increased trial signups
- Less reported stress among the product team

HubSpot is now a firm believer in the Lean UX approach: "Our team was efficient and collaborated well," Austin said. "Users were involved throughout the entire process. And as a result, we produced something impactful that we all could really be proud of."

Delightful Mobile Enterprise UX

Design: Y Media Labs
Client: EMC

Since 2009, Y Media Labs has been creating mobile experiences for major brands including PayPal, Western Union, North Face and Staples. But perhaps no project highlights the agency's work better than their enterprise UX work with EMC.

Y Media was tasked with updating EMC's enterprise-level file sharing solution, Syncplicity. Syncplicity is a collaboration application that lets people at work to download, sync, share, and manage all their desktop files on the go. Despite its market traction, the product's design was antiquated and visually unappealing.

EMC asked Y Media Labs to transform it into a powerful, user-friendly iPhone and iPad app that could offer end-users the consumer-like experience they expected without sacrificing the security requirements of IT buyers.

The agency needed to find a way to empower business users to quickly and effortlessly navigate through thousands of files–and actually enjoy the experience.

And of course, they were in a major time crunch.

The result? Forbes said the app was one of the "slickest, most well designed, intuitive and beautiful apps you've seen." And the accolades–and App Store top download rankings–continued from there.

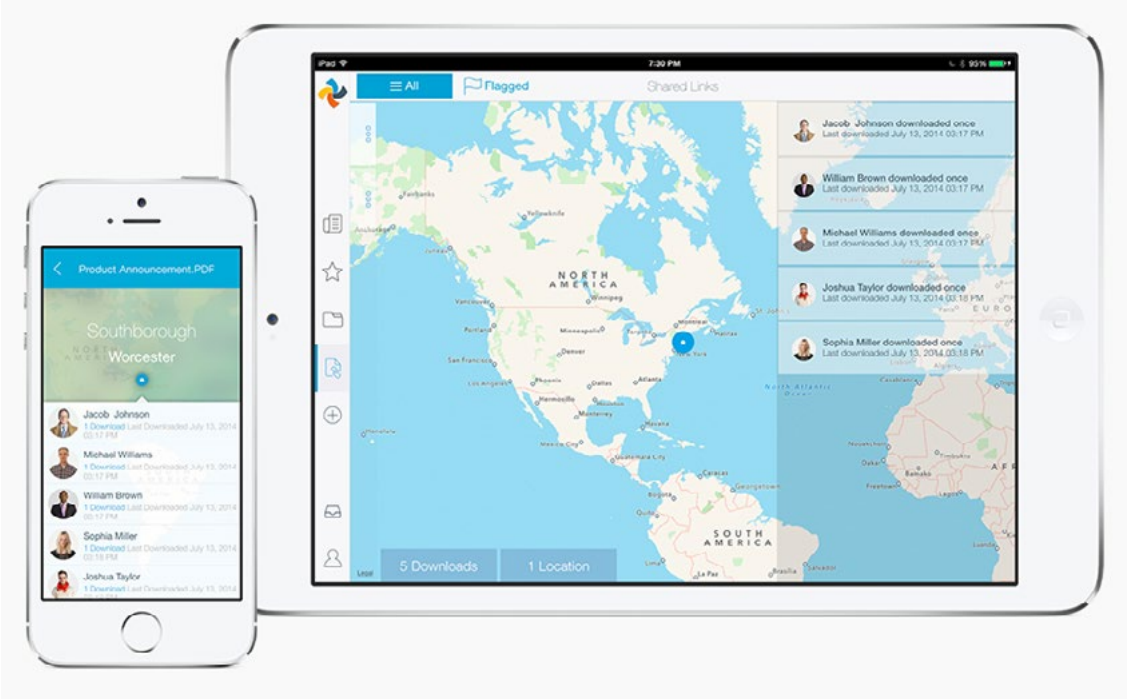


Photo credit: EMC

So, how did these designers get from functional to delightful? By quickly identifying and focusing in on the one key problem–navigation–and then working closely with their client to build a focused interaction model.

This is their process.

Ongoing: Agile Collaboration

Throughout the entire design process, YML held daily stand ups in which designers, client product managers, and client developers discussed current assignments, pain points, and potential new ideas.

At each stand up, every team outlined the following:

1. What they worked on the day before
2. What they were going to work on that day
3. If they experienced any issues preventing progress

Whether the designers were creating early-stage sketches or diving into a native prototype, the standups let everyone advise one another and work accordingly.

Stage One: Collaborative Sketching & Exploration

Due to the extreme time constraints, Y Media wasn't able to do conduct formal user research in the beginning of the process. Generally, you always want to reserve a "Sprint 0" for upfront research, followed by at least an hour of research sprinkled into each following sprint.

As a workaround, they drew on their own experiences and the vast existing user research their client product manager (a power user) could share about using file sharing products in general and Syncplicity specifically.

Following UCD best practices for divergent thinking, the team was not bound to an any features or specs from the beginning. From the start, the client secured necessary technical resources to build the back-end based on front-end insights.

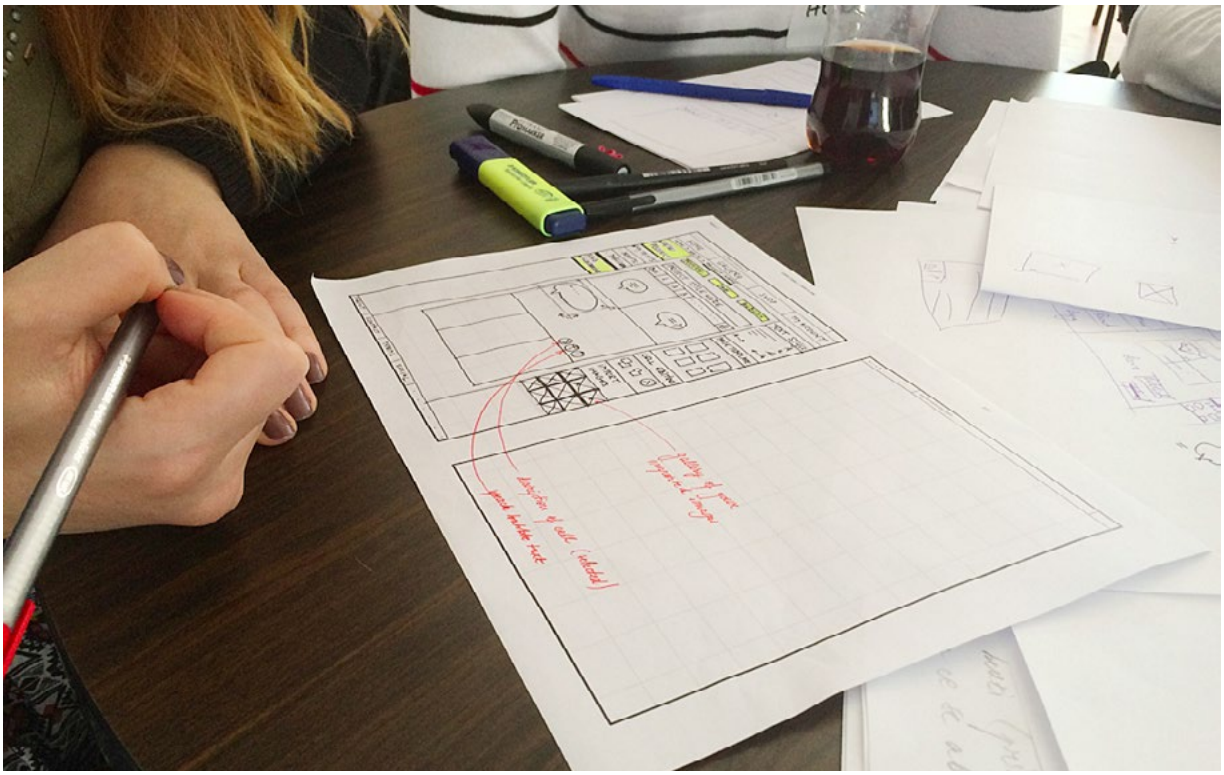


Photo credit: Alecsandru Grigoriu

Amidst multiple on-site whiteboarding sessions both teams soon pinpointed the one main problem with all mobile file sharing: the file browsing interaction system.

"The big challenge was obvious from the beginning," said Y Media Labs Creative Director Ryan Spencer. "File sharing is visually unappealing and difficult to navigate. We quickly added personalized info and background photos to make it feel like a more consumer product. But the fact is that to make file sharing innovative, like EMC required, we needed to come up with a whole new interaction model."

As the teams dove deeper in the sketching sessions, they quickly revealed the core use case at hand: how can you make going 20 levels deep in files easy, let alone delightful? Tab bars would be hard to use. Pull downs would send users back to stage one over and over again.

The team noticed that existing competitors like Box and DropBox incorporated a very linear model to access files. This interaction model works well for consumers who typically have a few hundred files on their cloud. However, within an enterprise context, where a business user is expected to store their entire computer in the cloud, a linear model presents a confusing and fragmented experience.

And then, as the designers sketched together with EMC product managers and their developers, they reached a breakthrough: sheet-based navigation.

The team realized that people needed to move through their files as easily as if they were moving through a pile of papers on their desk. Rather than tapping return to go back to your root folder, with sheet-based navigation, you could simply swipe horizontally. This panel-based approach to file navigation solved the core interaction issue, letting users go dozens of levels deep without losing their way or wasting their time.

"This breakthrough that we had sketching collaboratively with our client was tremendous," Ryan said. "This moment of clarity when we discovered the concept of sheet-based navigation became the heart and soul of the rest of our project. Not only was it simple to use but

it actually could deliver on the delight EMC wanted enterprise users to finally feel."

With the idea in place, sketching continued, working closely with developers to come up with the physics and basic flows (linear, predictable) of sheet-based navigation. Developers were excited about the new swipe back motion that had just been introduced with iOS 7, and working together, they quickly found new gestures and motion models that capitalized on this new functionality.

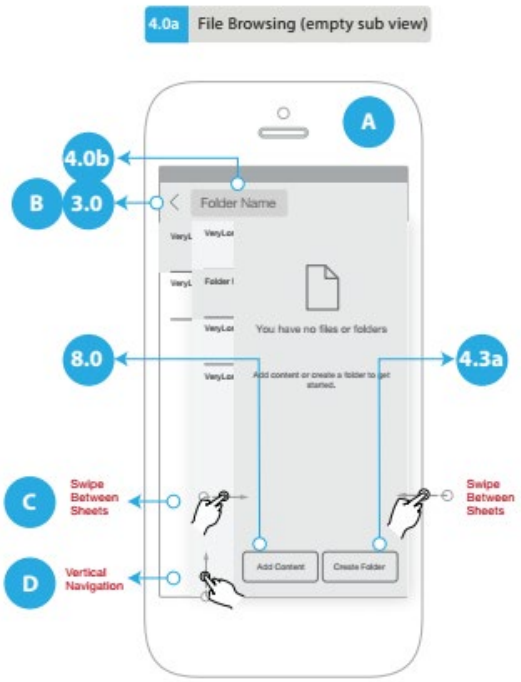
"The more you front-load your work with conceptualization and frameworking, the better the plan," Ryan said. "I love it when we work collaboratively with not only our developers but our clients. That's when magic can happen."

Stage Two: Wireframing

Still working on a constrained timeline, the team quickly moved to wireframing, working out the basic flows.

While in-house teams might generally skip wireframing and move directly to lo-fi prototyping, agency teams sometimes need to provide more thorough documentation for clients and developers. In this part of the design process, annotated wireframes struck the right balance between technical detail and speed.

The main challenge at this point, however, was still figuring out how the sheet-based navigation would actually work.



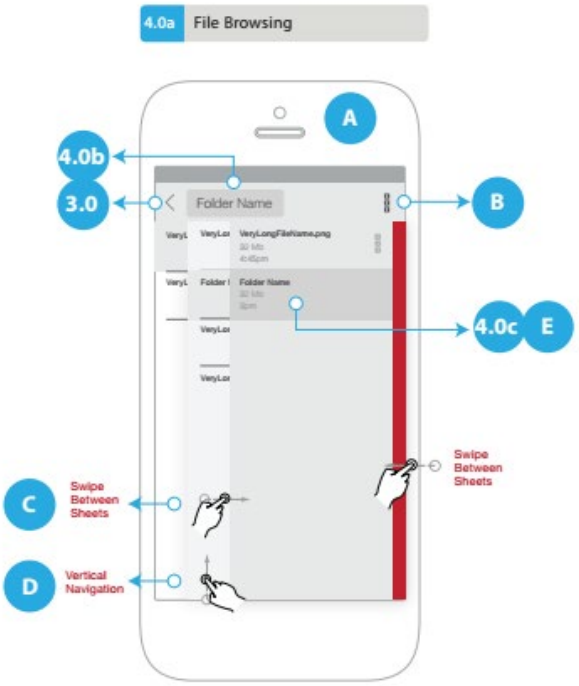
A **Sheet Based Nav:**
Allows the user to navigate through navigational hierarchy using both taps & gestures. When the user is at the highest level and has no content, two buttons will appear, allowing the user to add content or create a folder.

B **Dynamic Nav:**
When the user is not at root level, the top toolbar will change to allow additional functionality. The arrow will take the user back to the root level (if at a higher level).

The back arrow will animate as a 45° turn from the "pull-down" indicator.

C **Swipe to Navigate:**
The user can swipe to navigate between levels of folder heirarchy. A subtle swipe right will give the user a cue there is an additional sheet available. Swiping left will take the user back through layers of navigation.

D **Vertical Sheet Navigation:**
The user will be able to navigate current sheet as well as previous sheets vertically.



A **Sheet Based Nav:**
Allows the user to navigate through navigational hierarchy using both taps & gestures. When the user is at the highest level and has no content, two buttons will appear, allowing the user to add content and create a folder.

B **Dynamic Toolbar:**
When the user is not at root level, the top toolbar will change to allow additional functionality. The arrow will take the user back to the root level (if at a higher level)

C **Swipe to Navigate:**
The user can swipe to navigate between sheets. A subtle swipe right will give the user a cue there is an additional sheet available. Swiping left will take the user back through layers of navigation.

D **Vertical Sheet Navigation:**
The user will be able to navigate current sheet as well as previous sheets vertically.

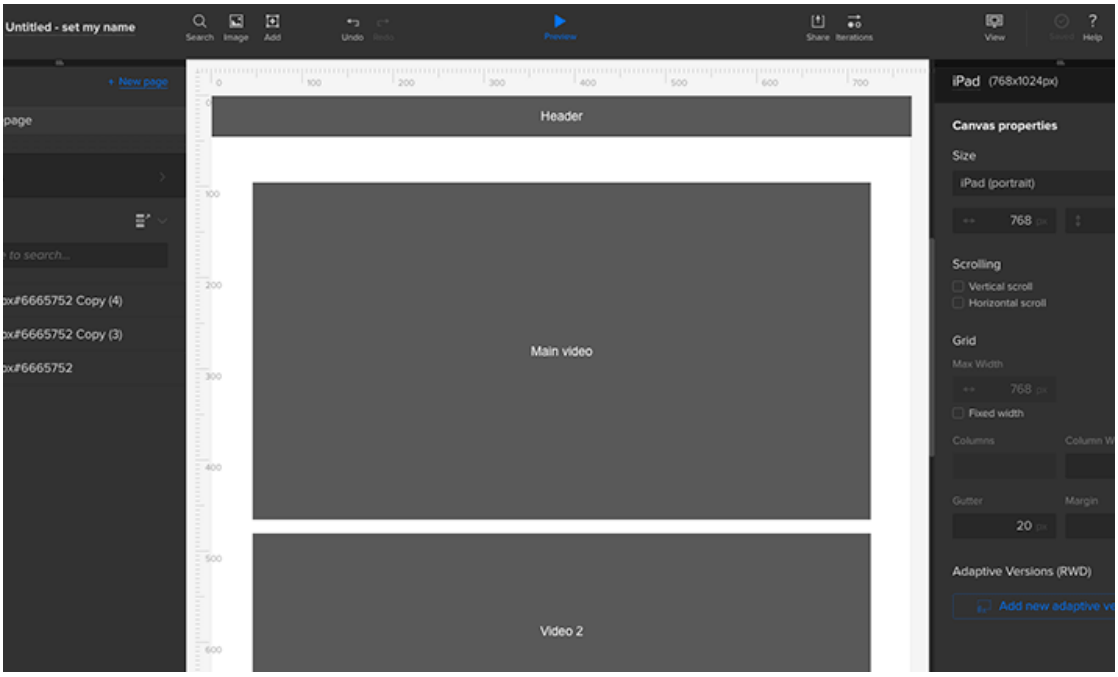
E **Load Selected:**
Loading in a file should work in the same way the iPad application does.

As the team continued wireframing, they revealed another design challenge: there was no parity between designing for an iPhone and an iPad. The difference in not just visual real estate but how users held the devices meant that their development would need to take two separate but synchronous paths.

Instead of porting over a complete desktop experience to iPad and iPhone, the teams decided they would need to design each experience around each device's specific use cases, context, and physical real estate.

Designer Pro Tip

Before you start wireframing, create a spreadsheet that lists all the content you must include. Assign priorities to each item (primary, secondary, etc.). The prioritized content inventory helps you decide the visual hierarchy for your first wireframe.



Created in UXPin: Interactive wireframe of a mobile video app

Ben Gremillion, Content Designer at UXPin

Stage Three: Native Prototyping in Code

Thanks to the design team's tight collaboration with their developer counterparts, Y Media was able to move quickly to native prototyping, which allowed the team to play with interactions and figure out key flows for the product (such as how to find a folder based on its owner using avatars).

While some in-house and agency design teams prefer prototyping with a specialized tool, prototyping in code can be extremely effective if:

- Designers are highly technically proficient in standard languages like HTML or even Ruby.
- Developers are allowed the necessary time to prototype in code.
- Designers and developers are collaborating closely (e.g. co-located) so that either of the above scenarios result in technically feasible prototypes.

In this case, since the second and third criteria were satisfied, native prototyping worked out.

Most notably, native prototyping empowered the team to quickly close the parity gap between the iPhone and iPad apps, letting them play with the use of horizontal space. That being said, Ryan notes that they have since started using collaborative design tools to prototype faster and reduce development costs.

While the developers were coding, the designers also had space to think about the overall aesthetics, using bright colors for legibility and adding in personalized elements like the background photos to give Syncplicity a distinct consumer feel.

Built upon the foundation of sheet-based navigation, the team prototyped core features such as:

- **Editing files on the go** – A built-in editor allows users to quickly edit MS Office files and annotate PDFs. Files are also automatically backed up in real-time.

- **Simple collaboration** – If a user can't remember a file name, they can tap another collaborator and see all files they've ever shared together. This approach matches the employee user behavior sug-

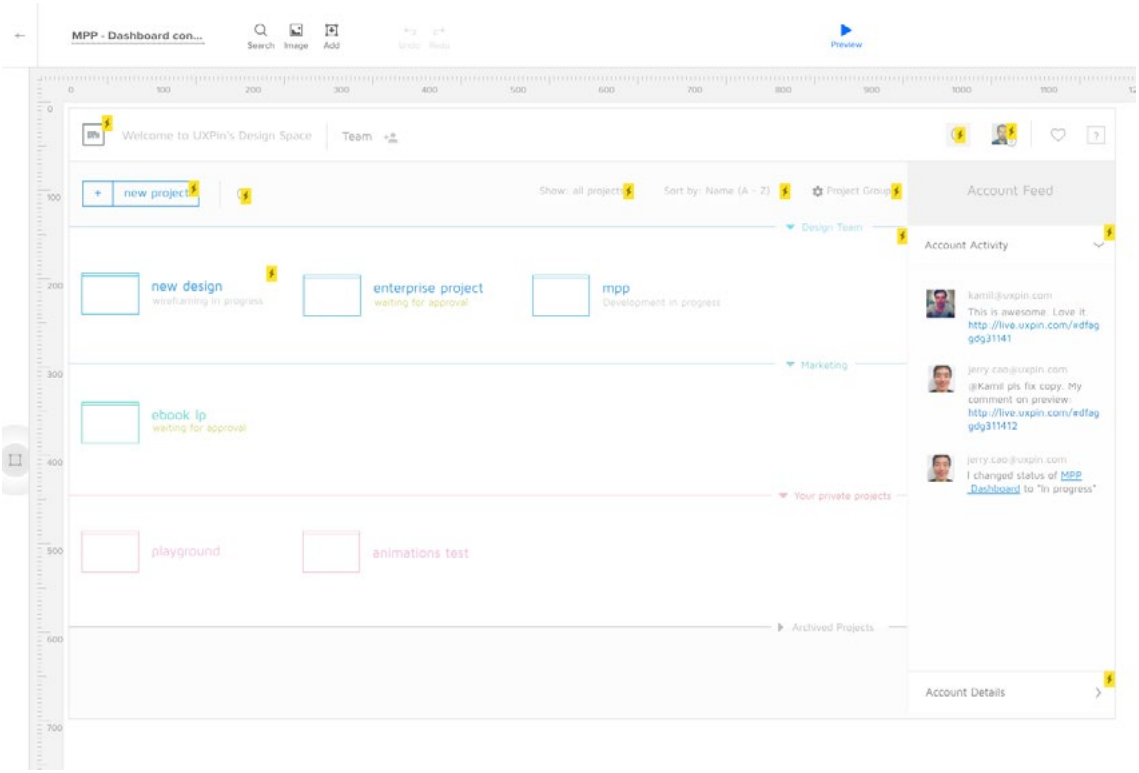
gested by the client's user research: oftentimes employees might forget a specific file name but remember exactly who they were collaborating with.

- **Personalized collaboration** – Since the app connects to calendar invites and meeting notices, the user receives suggestions for people with whom they may want to share files. The app also sends reminders to collaborators who haven't downloaded the shared file, and also updates collaborators on document changes.
- **Contextual delight** – Since enterprise software isn't traditionally known for personalization that adds delight and immersion, the team added avatars and location-sensitive features. For example, the iPhone background dashboard displays a photo of the user's location and the iPad's home screen dynamically changes throughout the day.

Overall, the design decisions fulfill the formula for delight: smooth execution of core functionality (like auto-suggestions for collaborators) create meaningful delight, while finishing touches like avatars and contextual backgrounds add surface-level delight.

Designer Pro Tip

If you're designing on a tight timeline, skip static wireframing. Instead, sketch some ideas, then create a mid-fidelity prototype. You'll strike the right balance between effort and usability. As shown in the below example, you won't sink time into visual design, yet the prototype is realistic enough to test with users without confusing them.



Created in UXPin: Mid-fidelity prototype of an enterprise dashboard

Radek Taraszka, UX Designer at UXPin

Stage Four: Guerrilla Usability Testing

The team was on such a tight timeline that usability testing was sure to be a problem.

But, armed with these native prototypes, the team conducted hallway usability tests, passing the product around to dozens of co-workers and client users to test out the core flows.

In this case, the team could draw accurate insights from dogfooding since they were all employees who accessed GBs worth of files everyday.

The on-the-fly feedback allowed them to iterate the new Syncplicity for full launch, getting it into the client's hands in just months and solving the challenges of simultaneously designing for two different form factors.

"We were able to test out key features on the fly and it made our whole process so much faster," Ryan said. "Being able to put working prototypes in people's hands was essential. Without the guerrilla testing, we never could have gotten to a final product so quickly."

Conclusion

This particular case study highlights how designers and client teams can adapt their processes under tight time constraints.

More importantly, the project demonstrates the importance of enterprises adopting a consumer-influenced UX strategy. Enterprises must understand that employee end-users are just as influential as the final buyer in the purchasing process.

Enterprise products must be impressive enough for that first team to recommend to the rest of their company. Otherwise, while a sales team might persuade the first purchase, employee dissent can easily prevent product renewals.

As shown in the Synchplicity project, thoughtful design helps you better bridge that gap between end-user needs and buyer needs. Enterprise apps don’t need to just meet the bare minimum of usability – they can also feel rewarding and enjoyable to use.

Revitalizing Design for the U.S. Government

Design: Brave UX
Client: U.S. Department of Health and Human Services

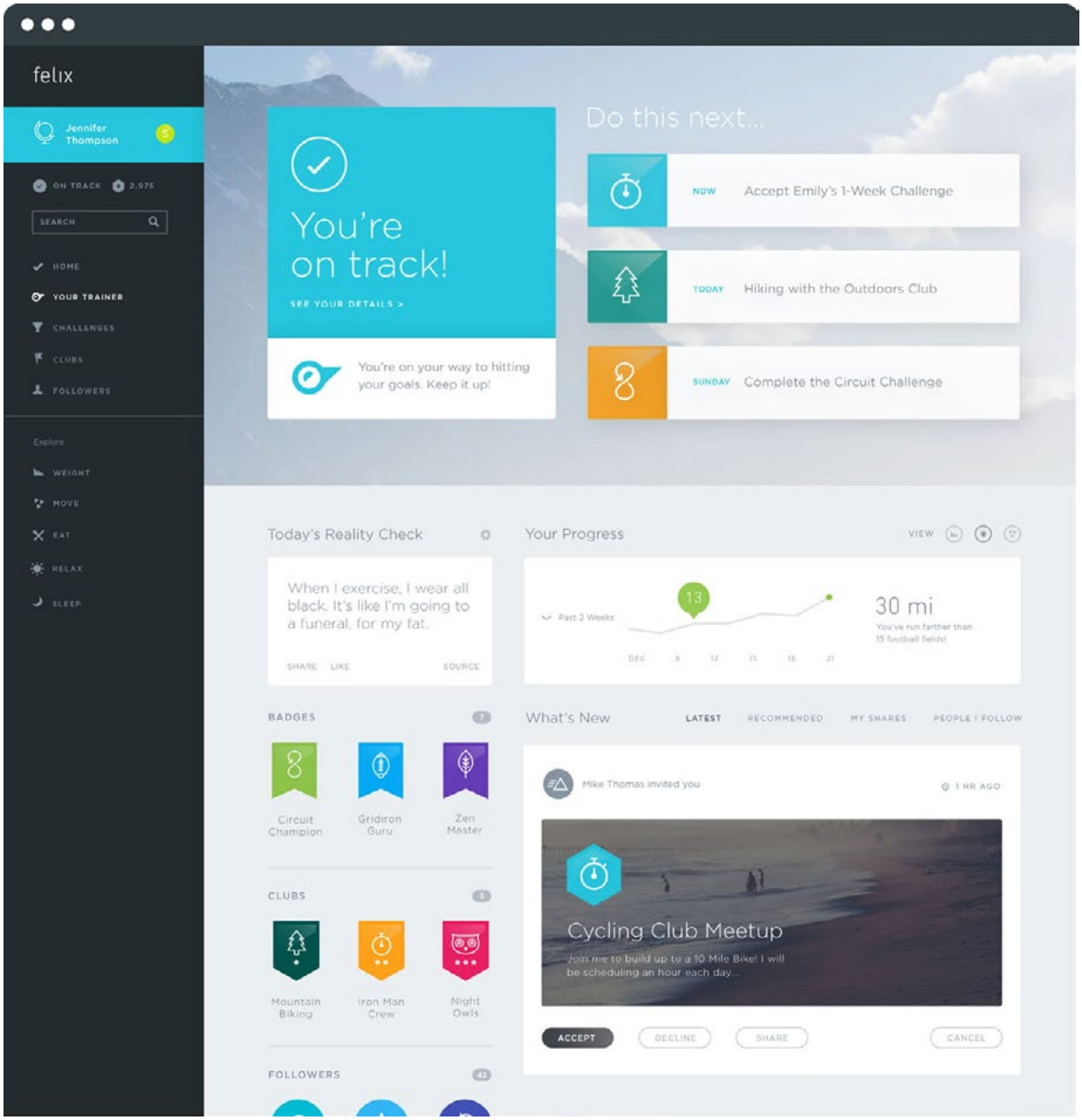
The mission of Federal Occupational Health, a division of the Department of Health and Human Services, is to promote the health and wellbeing of federal employees.

Living up to that charge is no easy task, but is extremely important to FOH. They have tried many techniques in the past, from posters to stand-up desks to classes. But they knew that to truly improve people's lives, they needed a plan that would not just offer advice and guidelines but truly motivate them to change their behavior, to make them feel better, fitter and just plain happy.

To achieve this goal, FOH turned to Brave UX, a boutique agency based in Washington DC.

Like the FOH, the Brave UX team was well-versed in understanding complex data.

Together, they created Felix, a wellness app that does more than just churn out charts or count steps. Felix uses decades of research, data, and behavioral change models to help federal employees feel happier.



Step One: Revealing the True Goal

The FOH had trouble transforming their extensive legacy data into actionable insights. Working with the Brave UX team, the first order of business was to establish a clear high-level goal.

In its simplest terms, the goal was to improve the health and well-being of federal employees. Such an outcome would then lead to business benefits like less sick days and reduced employee turnover. But, data aside, the team soon realized that for this program to work, a major paradigm shift was required.

All their initial research–including flow maps and user interviews–illuminated one major pattern: unhealthy habits like smoking and overeating or daily concerns like stress, anxiety, or sleep were all just symptoms of something much more complex.

In short, the team needed to empower employees to improve the most subjective thing of all: their happiness.

Designer Pro Tip

Use the 5 Whys technique to dive into the real problem worth solving. Start with your original problem statement, then iterate after the exercise.

Here's how you'd apply the exercise for an initial problem statement of "Users are too stressed":

Why do I have too much stress?
...because I have too many stressful thoughts. (refined problem)

Why do I have so many stressful thoughts?
...because I can not calm my thoughts. (refined problem)

Why am I unable to calm my mind?
...because I don't practice calming my mind. (refined problem and alterable behavior)

Why am I unable to practice calming my mind?
...because I don't have a process to calm my mind. (broken process identified)

Why do I not have a process to calm my mind?
...because I'm not aware of myself enough to know I need one. (deeper broken process identified)

> The root cause of the perceived problem of too much stress is a lack of process to calming and focusing our mind. In this example, calming my thoughts leads to less stress, which solves the original problem. We can evolve our problem definition now to "Reduce stress by improving self-awareness."
>
> Ryan Allen, Senior UX Designer at Picmonic

Step Two: Filling in the Blanks

As Jordan DeVries of Brave UX said, when they started the actual process of figuring out the solution, they were confronted with "a few bibles worth of requirements."

So, where to start?

Jordan said they followed the "Beautiful Minds" approach of bringing together client developers, Brave UX designers and client marketing leads about three times a week in front of a white board, capturing all ideas and feedback. They brainstormed everything from psychological models to visual mapping of databases, and from this mass of information began to recognize patterns to prioritize based on their singular goal: improving employee happiness as a means of improving their health.

After a few weeks, they identified 16 important content modules and moved to card sorting to architect the informational flow, all before spending a minute on any visual designs.

"Just like you can't make iTunes with a single song, you can't create a wellness app on one set of data," said Brave UX's Kelaine Conochan. "We knew that if this project was to succeed we all needed to spend enough time throwing spaghetti at the wall that something would stick. By taking our time and looking at every single angle, we were able to create something holistically baked through."

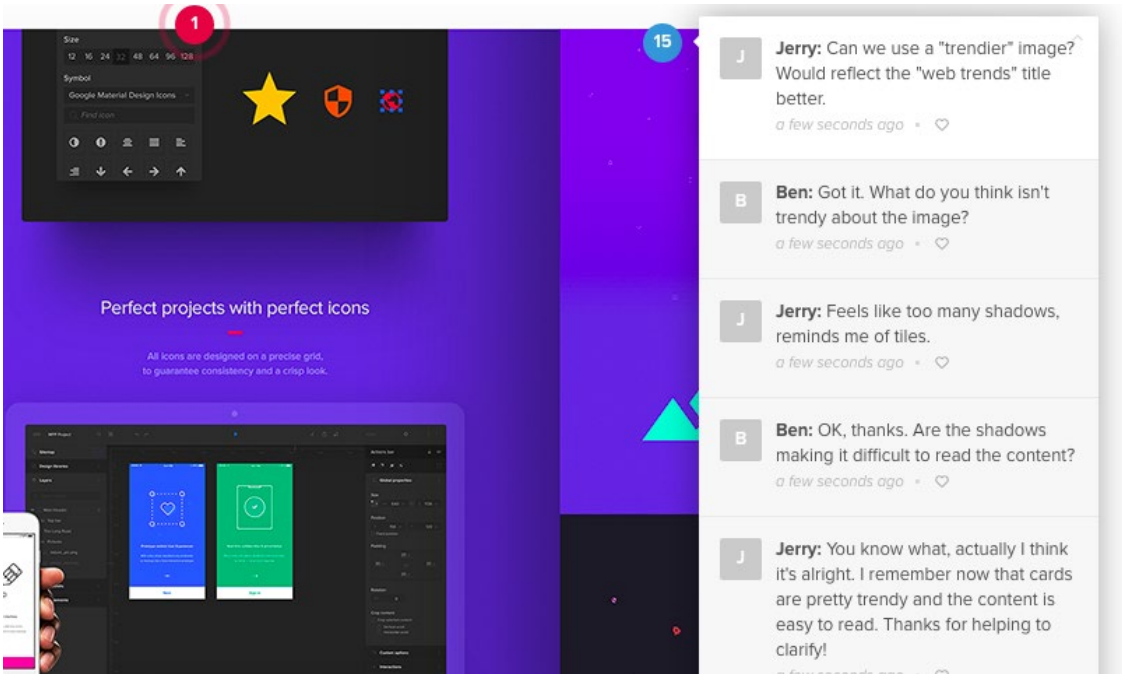
Resisting the urge to prematurely show "pretty designs," the Brave UX team focused instead on structuring their four core content modules: movement, sleep, eating, and relaxation. And from here, more detailed design commenced, one additional module at a time until all 16 were finished.

Designer Pro Tip

Always dive into the root problem behind the feedback.

Instead of acting defensive, try Dustin Curtis' three-question rule. In response to difficult feedback, ask 3 focused questions aimed at revealing the true rationale. Not only will you separate opinion from valid feedback, you might also guide the person towards a natural resolution.

Take a look at this conversation from a recent UXPin internal project to see how it can play out:

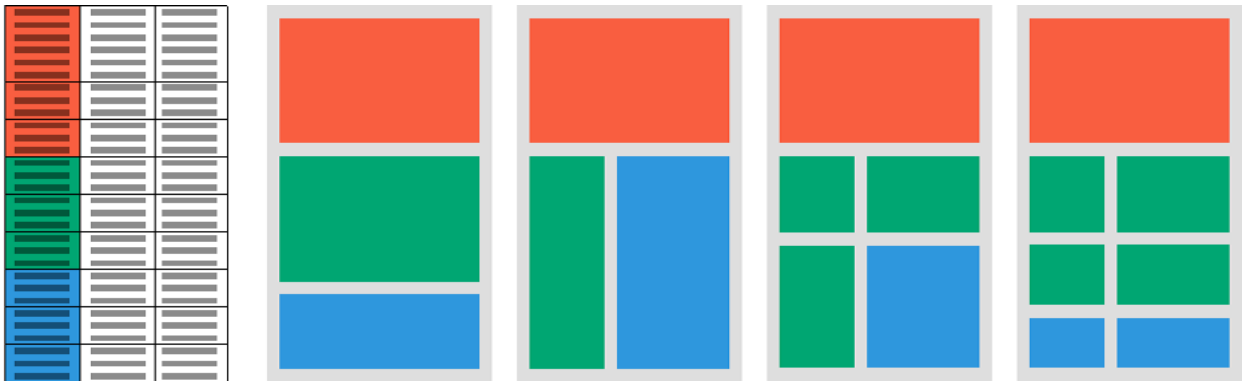


Jerry Cao, UX Content Strategist at UXPin

Step Three: Module by Module

Every time the team came to a new content module, they held a mini kick-off.

They re-whiteboarded their assumptions, the current state of the product, and where each module would fit. On top of standard brainstorming exercises, they continued card sorting to ensure the information architecture could comfortably support the growing breadth of the application. With a compressed timeline, the team managed to keep all stakeholders present and engaged every step of the way, which was invaluable in aligning everyone in such a complex process.



The team found that they were best able to validate concepts by creating clickable, lightweight prototypes.

By creating one content module at a time and debating its individual design elements (e.g. why a sidebar, why three buttons, etc.), the team was able to adjust prototypes on the fly. Since government employees tend to skew older, they also tested decisions every step of the way, ensuring that each module was as usable to a 60 year old as it was to a 30 year old.

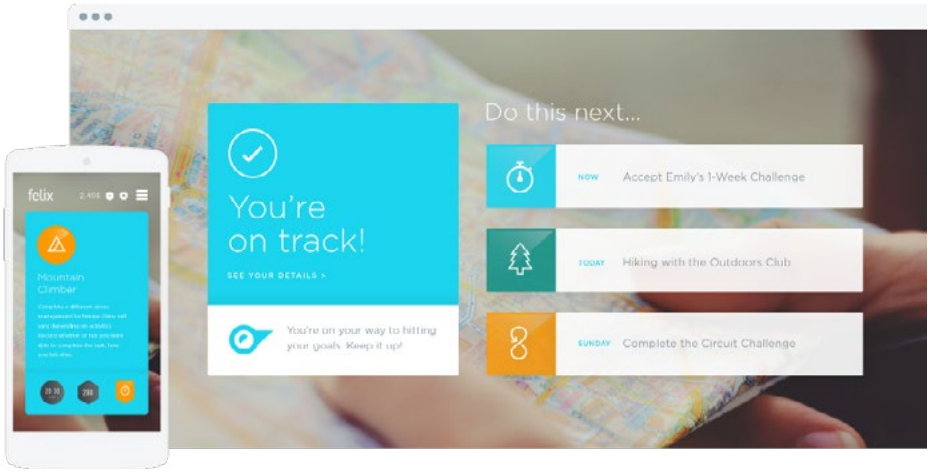
Step Four: Felix Comes Alive

Because the wellness app is voluntary for employees, adoption relies on whether people actually *want* to use it. As a result, Brave UX had to make the app engaging and delightful for the user. Finding a brand, including both visual language and a voice, was the next big step toward that goal.

After brainstorming sessions with FOH stakeholders, Brave UX decided to create Felix (the Latin word for happy), a spritely, encouraging virtual trainer who could help users stay motivated.

Felix uses a challenge-based model which offers qualitative feedback based on user data. Based on initial preferences set by the user, the app creates realistic challenges with rewards (like badges) that the user can then share with other employees. Over time, Felix's algorithm adapts to the user and customizes challenges accordingly.

In fact, users can even find support from other users by joining groups based on their interests (like hiking, biking, etc).



As a result, Felix helps entice users into a “positive addiction” cycle that’s effective on an individual level, but becomes even more enticing as others join in.

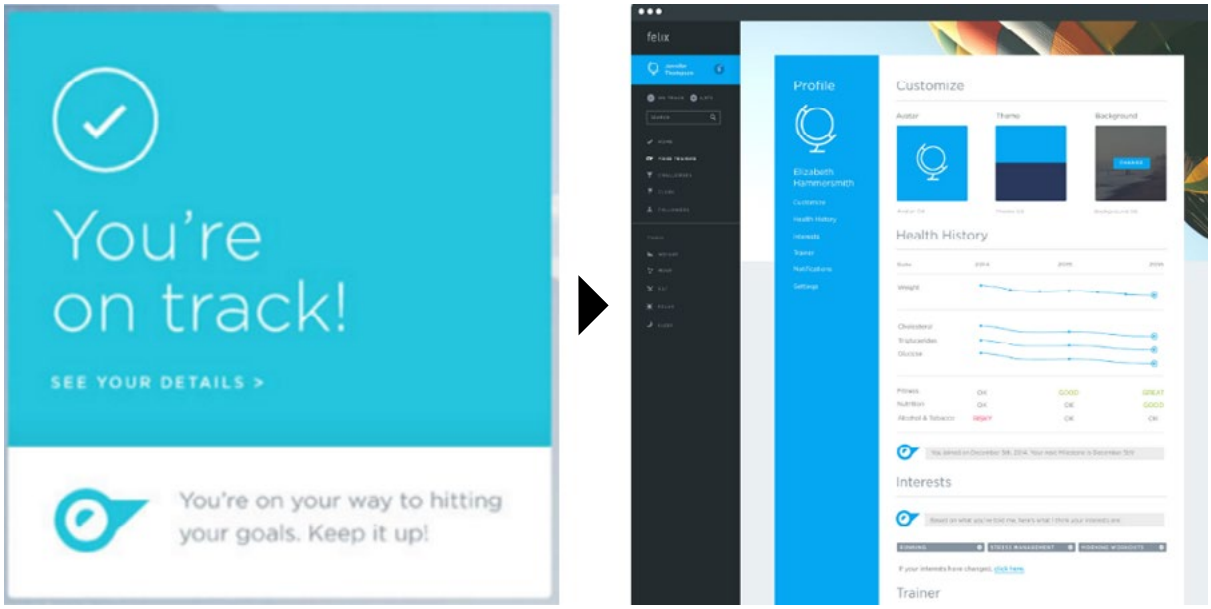
To ensure the success of gamification, the team jointly created the following non-negotiables:

1. **Privacy by default**
   Health information is sensitive and personal, and user privacy and trust are of the utmost importance. As a result, the FOH and Brave team ensured that users are in total control of their privacy options, allowing users to decide for themselves who is permitted to see their goals and progress.

2. **Context and detail are paramount**
   Decisions shouldn’t be made in a vacuum.

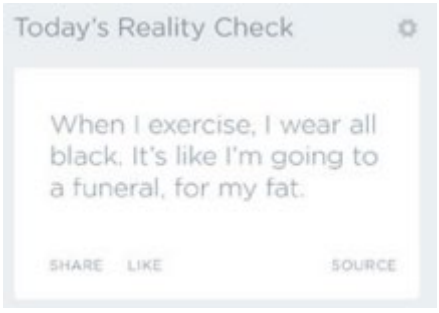
   To inspire meaningful behavioral change, the application needed to offer multiple levels of content that give users context on how well they are doing against their goals:

   - **High-level progress tracking** – At the highest level, the home dashboard highlights overall progress status with simple messages like “You’re on track!”. By clicking on the message (presented in a card), the user is then shown a screen of historical progress.



- **Goal-specific progress tracking** – In the middle of the home dashboard, the app also highlights any specific progress in a goal (e.g. running 30 miles a week) with an accompanying fun message.

- **Goal-relevant advice** – Next to the above tracking, the home dashboard also offers fun and inspirational tips.



3. The human element is key

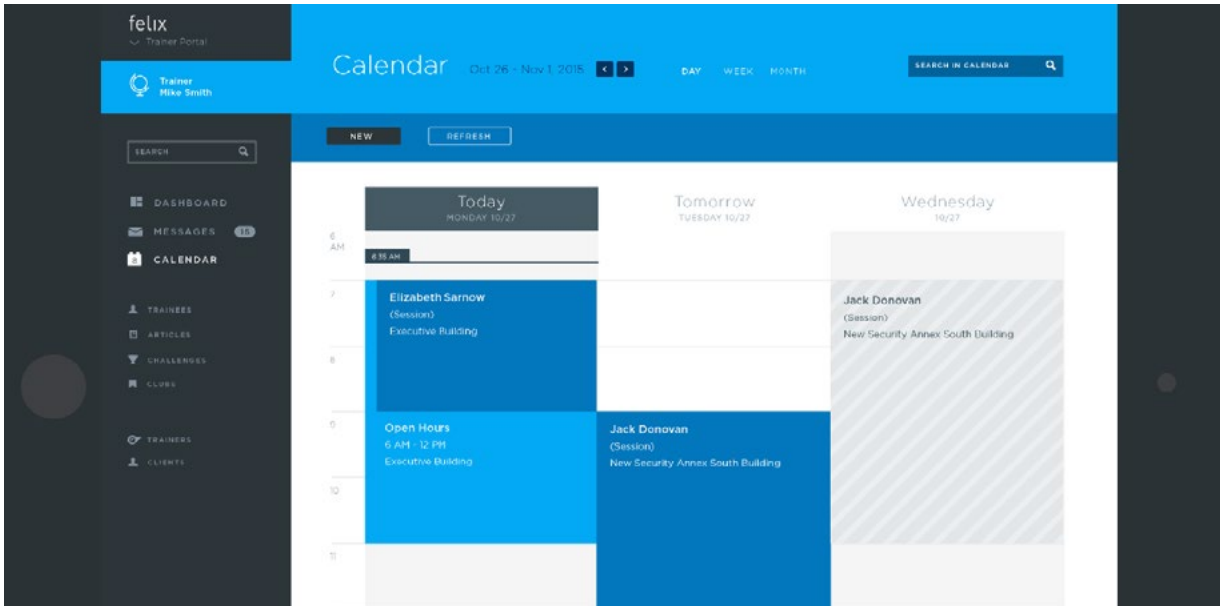
As all the research clearly showed, Felix needed to feel friendly and empathetic every step of the way. The copy and the feel of the visual design both reflect an inviting and nonjudgmental atmosphere.

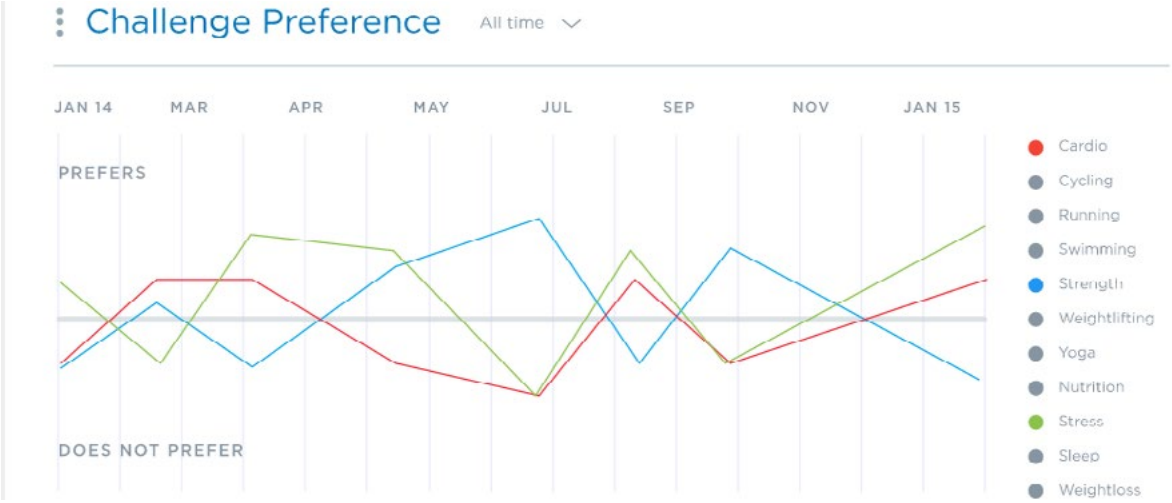
In short, Felix needed to be about life – not just work.

4. UX parity between end-users and administrators

Felix offers more than just a user-facing tool. It also integrates services and sessions with FOH's health experts, relying on them to customize wellness programs for specific clients.

To make this easy for FOH staff, the administrative side of Felix needed to be just as usable and enjoyable as the end-user experience. Through Felix, experts (like personal trainers) are able to easily schedule sessions with users and adapt the content (like tips) based on their more personal, real-world interactions.





Throughout the Whole Process: Crafting the Personality

In parallel with each of the above steps, the team was also defining Felix's visual personality.

Brave UX created every aspect of the visual brand, including the logo, name, family of colors and iconography that represented the friendliness of the product. Their goal was to create a government application that didn't feel like the government. Something that would succeed in the more modern, edgy, and competitive, consumer market as well.

To create the right tone and pace for each user, the team created a cast of virtual trainers that were a mix of real-life wellness types (e.g. drill sergeant for extreme fitness, a zen-like person for mindfulness, healthy chef for nutrition-oriented users).

The visual design also influenced the gamified interactions. For example, one key gamification technique is allowing users to collect

novelties. As a result the team developed 144 levels of color schemes and 200 individual avatars that you could unlock and win.

The overall visual language is simple, inspired by the clean, sheet-like feel of Material Design. Throughout the process, they collected user feedback on this core interface, as well as the brand and bird mascot, via interviews and in-person prototype testing.

Conclusion

By deploying research best practices, deep collaboration with its client, and prototype testing each step of the way, the Brave UX team created an enterprise-grade app whose sum is more powerful than its parts.

- Ample time upfront for research and discovery allowed the team to reveal that designing for happiness was the true goal.
- Consistent product experiences for admins and end-users ensure better chance of meeting overall business objectives (e.g. less sick days, reduced employee turnover, etc.)
- Content-first approach ensures logical information architecture and prevents last-minute interface overhauls.

UXPIN & SUMOLOGIC CASE STUDY

Speeding Up Design Reviews 300%

THE CHALLENGE

Based in the Bay Area with 250+ employees and $161 million in venture capital funding, Sumo Logic serves some of the top enterprises in the world. The company's analytics platform visualizes more than 100 petabytes of data per day, helping businesses harness the power of machine data to streamline operations.

In 2015, Sumo Logic hired their first UX team comprised of design leaders, interaction designers, visual designers, and UX architects.

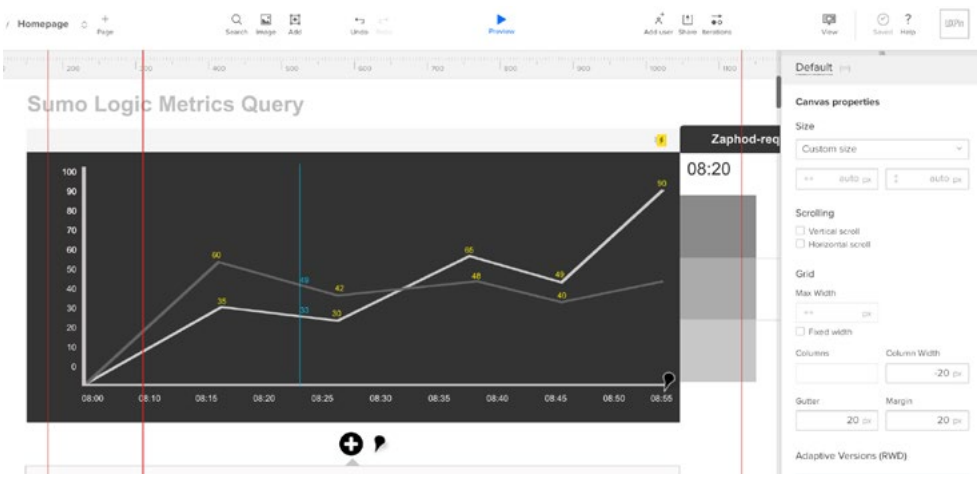
The company had been using Axure for wireframing but Design Director Daniel Castro quickly found that the solution did not allow for easy design modification and did not encourage collaboration.

Tired of sharing PDFs back and forth, the company needed a collaborative UX platform that could scale along with their teams and processes.

THE SOLUTION

For the first six months, Design Director Daniel Castro and his team spent much of their time holding happy hours and offering show-and-tells of great UX design.

In a culture already used to collaborative tools such as Slack, the slow process of emailing thoughts on static designs was stifling. Castro had begun using UXPin at his previous job, and knew it would offer his Sumo Logic team the collaboration tools they needed.



Sumo Logic prototype created in UXPin for their Unified Logs Metrics product

> *"We are constantly collaborating with engineering and product managers and it used to take a significant amount of time to work together going back and forth," Castro said. "UXPin allows us to easily show the flow and main components of our projects. We can share a link and everyone can communicate with our key stakeholders, expanding on each other's comments and allowing us to manage feedback contextually without redundancy. It's like a visual version of our thought process. We can even make comments on a pixel level. This has made our review process three times as fast."*

> *"UXPin has played a vital role in creating a design-oriented culture at Sumo Logic," Castro added. "The team is great to work with, and I'm excited to see what we can do next."*

THE RESULTS

- Design modification is **quick and simple** with UXPin, instead of the limiting modifications possible with Axure wireframing.
- Design reviews are **three times as fast and now contextual** using UXPin to collaborate instead of emailing static PDFs.

- UXPin is “like gold” when trying to get approval from stakeholders on projects, **halving the effort** needed to communicate with stakeholders.

Want UXPin to help your team? Start a free trial now.

- Create and collaborate with your entire team in one place
- Get real time project updates with our Slack integration
- Go from lo-fi to hi-fi in a single tool
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