

# METHODS OF UX ANALYSIS

**BY FRESH CONSULTING**

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# TABLE OF CONTENTS

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1	Developing a Multidimensional Strategy to Win
2	Data Informs a Multidimensional Perspective
3	8 Methods of UX Analysis
4	One: Website and Device Analytics
5	Two: Business and Sales Analytics
6	Three: Competitor Benchmarking
7	Four: UX Principles Benchmarking
8	Five: UX Checklists and Heuristics
9	Six: UX Trends Evaluation
10	Seven: Technical Analysis
11	Eight: Process Analysis
12	Take Your Design Strategy From Acceptable to Exceptional

# DEVELOPING A MULTIDIMENSIONAL STRATEGY TO WIN

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Conducting UX Analysis is like developing a strategy to win a game of chess. A high-level strategy, informed by analyzing data, allows you to move piece-by-piece and win.

Chess boasts an infinite number of possible approaches to the game. It's the same with a holistic approach to UX design. How do you decide which piece to move next? Many businesses move the pieces randomly, approaching design haphazardly.

It's illegal to have a spectator who comments on a game of chess because it gives one player an unfair advantage. The spectator can look at the board from different angles and suggest a winning gameplan.

In UX, however, there aren't rules about seeking out additional perspectives – why turn down this advantage? Multiple perspectives on your experience will allow you to have an informed vantage point. Analytics can provide several perspectives to inform and validate your design, much like user testing and user research can.

A design challenge may have an infinite number of approaches, but there are usually superior strategies. Analyzing data provides perspective to identify the best strategy and make your next move with confidence.

**Looking at your data and analytics from one angle can be dangerous. By combining your existing approach with additional methods of UX Analysis, you can find a multidimensional perspective that lifts your product above the competition.**



# A MULTIDIMENSIONAL PERSPECTIVE ON DATA INFORMS DESIGN STRATEGY

## User-centered design focuses on satisfying the end needs of users.

In this paper, we'll discuss how analyzing data – both quantitative and qualitative – informs decision-making for design direction. Understanding what the data is telling you impacts your information architecture, personas, user flows, interface design, and a variety of other aspects of the user experience.

Having multiple dimensions of data allows companies to innovate. Although analysis can be skipped for a rush project, it adds certainty to design decisions. The insights can be far-reaching.

In a harsh landscape where companies are constantly vying for market share, being cognizant of general trends is essential. It's a huge bonus if you can identify a strategy that sets you apart.

Developing a multidimensional strategy to win requires looking at the board from different angles. The UX Analysis methods fall into four categories – the User Perspective, the Business Perspective, the Expert Perspective, and the Technical Perspective. Each of which offers a unique vantage point, allowing you to feed your design process with real insight.

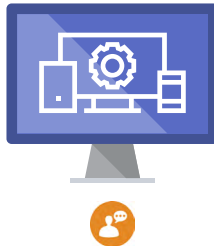


## 8 METHODS OF UX ANALYSIS

In order to gain perspective and advocate for winning strategies, we recommend utilizing multiple Methods of UX Analysis. The same methods don't apply universally to every project.

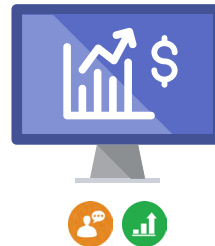
Broadly, however, UX Analysis allows companies to:

- 1) Meet users' needs, 2) Differentiate their product, and 3) Stay ahead of the curve.



### Website and Device Analytics

Evaluation of your target audience demographic, including a deep dive into device preferences, core browsers and technology, and supporting data



### Business and Sales Analytics

Evaluation of business and sales data, gathered from ordering systems or software, including Enterprise Resource Planning Systems (ERPs), or Customer Relationship Management Systems (CRMs)



### Competitor Benchmarking

Quantitative and Qualitative Evaluation of site against competitors to see similarities and differences and explore opportunities for improvement



### UX Principles Benchmarking

Evaluation of site against time-tested UX principles and general UX myths to identify where there is opportunity to improve



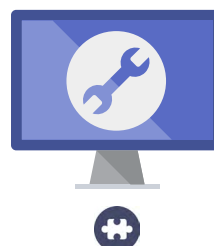
### UX Checklists and Heuristics

Thorough evaluation of the site against best practice checklists, heuristics, and frameworks



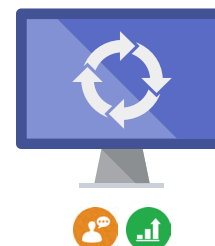
### UX Trends Evaluation

Evaluation of site against new UX trends to see if there are opportunities to do more cutting-edge design work



### Technical Analysis

Evaluation of the technology that will impact design decisions



### Process Analysis

Understand the user's process to create empathetic designs and develop intuitive process flows

# WEBSITE AND DEVICE ANALYTICS



Evaluation of your target audience demographic, including a deep dive into device preferences, core browsers and technology, and supporting data

It's crucial to understand where your target demographic "lives." What is their preferred digital environment? The chessboard hasn't changed in over 500 years, but technology changes constantly, and your users' behaviors and preferences will change as well.

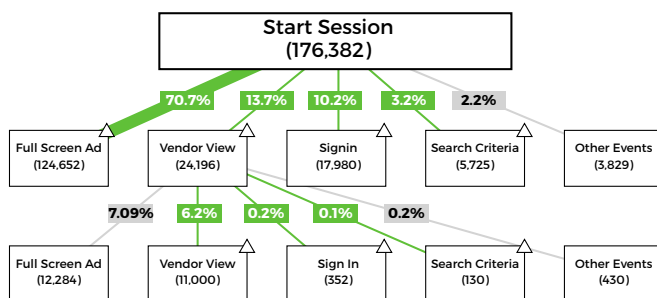
Jesmond Allen and James Chudley write:

"Analysis of server statistics from any existing product can paint a vibrant picture of what your users are doing now. It can point you to areas of high drop out where you may want to concentrate any redesign efforts..."

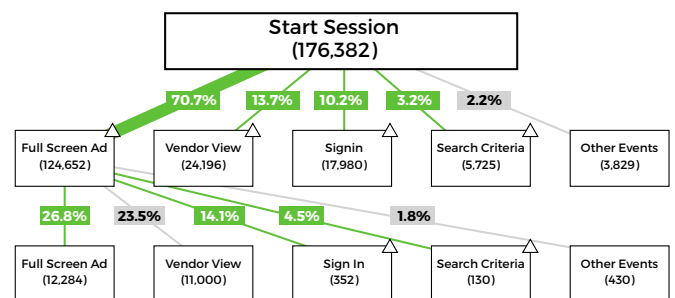
However, analytics cannot tell you why users are behaving as they are—usability testing is best for this."<sup>1</sup>

Website and Device Analytics reveal important information about click paths, target demographics, device preferences, and core browsers and technology.

A product often works broadly, for multiple user groups across multiple channels. While you may not be able to make your application supported on every single device, understanding where your users are and what their behavior is will help focus design efforts.



## 7.0% bounce rate



## 23.5% bounce rate

### Analytics Provide Insight

Flurry Analytics is one tool we use to analyze user behavior in mobile devices. In the example above, we tracked how users progressed through a mobile application. The results show the number of users who progressed through specific paths of the app and what percentage of users dropped off.

We were able to see the total percentage of users who progressed to each end of the path. When compared with a different version of the mobile app, we were able to see that the preferred version had only a 7% bounce rate, compared to a 23.5% bounce rate for the other version that showed a full screen advertisement. This helped us improve the ads to be less problematic for users, improving the overall experience for both the users and the business.

<sup>1</sup> Jesmond Allen and James Chudley. "Smashing UX Design: Foundations for Designing Online User Experiences."

# BUSINESS AND SALES ANALYTICS



Evaluation of business and sales data, gathered from ordering systems or software, including Enterprise Resource Planning systems (ERPs) & Customer Relationship Management systems (CRMs)

Understanding business and sales data is an important part of UX as well. What strategic moves are yielding the most value? Which can be reconsidered?

**If a product is selling, something is going right. If it's not, more work can be done to look into the specific reasons why.**

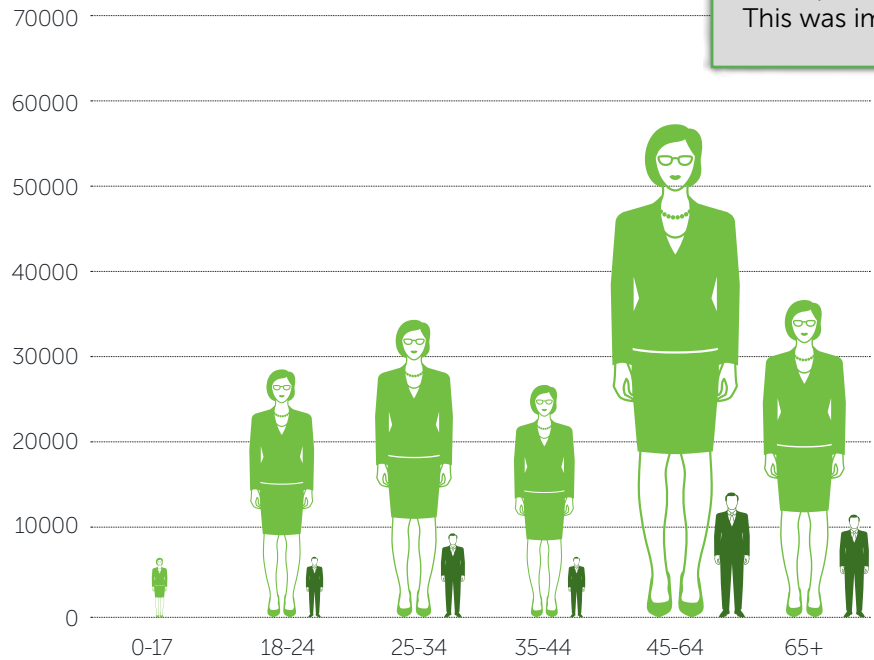
A UX process that keeps both users and businesses at top of mind ends with a solution that works for both parties.

We recommend analyzing business and sales data that comes from ordering systems, like ERPs and CRMs.

**Business and sales analytics allow companies to measure their success and evaluate how to improve concretely.**

But understanding business and sales data isn't, by itself, a perfect tool for analyzing UX. It's another angle from which you can view the board. It enables the creation of a product that works not only for users, but for businesses, stakeholders, and users alike.

## Total Numbers (Site Wide)



### Sales Data Reveals Key Demographics

Business and sales data reveals important information about your product and users. It's unique and can't always be found in web-site or device analytics. Even though web statistics showed a more balanced demographic, one client's sales data revealed that they had a predominantly older female user base actually purchasing. This was important to consider when it came to brand redesign.

#### ANALYSIS

- Customer base is dominated by females (74%)
- 45-64 is the single most important age group
- 0-17 is inconsequential

# COMPETITOR BENCHMARKING



Quantitative and Qualitative Evaluation of site against competitors to see similarities and differences and explore opportunities for improvement

In [Smashing UX Design: Foundations for Designing Online User Experiences](#), the authors write, "Competitor benchmarking allows you to understand the features that are present in competitor products. This is often a good way of understanding users' expectations and needs."<sup>2</sup>

**At its core, Competitor Benchmarking will surface opportunities for improvement or differentiation. It also indicates areas of strength.**

By exploring qualitative data (observations, discussion of trends, etc.) and quantitative data (concrete numbers and statistics supporting the qualitative assessment) the team can make recommendations to meet –

and ideally surpass –the moves being made by the competition.

Competitor Benchmarking is typically conducted via Expert Review. A usability expert walks through the website or product, identifying areas of strength and weakness.

Competitor Benchmarks can include an analysis of items such as the base site width of a website, the use of vertical real estate, page load times, steps to checkout, technology stacks, and integrations. We recommend Competitor Benchmarking given that it situates your site or product in the context of similar products users might evaluate.



## Analyzing Usability

The Competitor Benchmark to the left analyzed the number of "steps to checkout" of similar e-commerce sites.

After conducting benchmark analysis, we analyzed how to keep the steps simpler and shorter to reduce dropout.

<sup>2</sup>Jesmond Allen and James Chudley. "Smashing UX Design: Foundations for Designing Online User Experiences."



# UX PRINCIPLES BENCHMARKING



Evaluation of site against time-tested UX principles and general UX myths to identify where there's opportunity to improve

Web and application design has become a mature field. Thus, common overarching trends and best practices have been established that act as guideposts when considering the direction of a design.

**Timeless principles exist for a reason – in many cases, they've been proven to enhance products.**

UX Principles Benchmarking evaluates the website or product against principles – and myths – and uses them as a metric to identify how to improve the design.

Principles and myths are indicative of what works and what doesn't. Like a proven strategy in chess, they act as a litmus test for what constitutes sound design.

This form of benchmarking is typically conducted by a UX expert, with a predesignated set of principles used to conduct the analysis. The method allows teams to achieve a key goal: identify concrete opportunities for iteration and improvement.

## Benchmarking Against Specific Principles

An example principle is that "[scrolling is faster than paging](#)." Each time a user clicks to a new page (called "paging"), there's an average 6.5 second refresh time. A user can scroll one long page (made up of multiple page sections) in a matter of seconds, versus spending a ton of valuable time transitioning between pages (e.g. spending 26 seconds viewing 4 pages).

Longer web pages are now common. Using this principle as a benchmark, we'd provide recommendations for how a client could make their website more scrollable and scannable.

**6.5 Seconds**



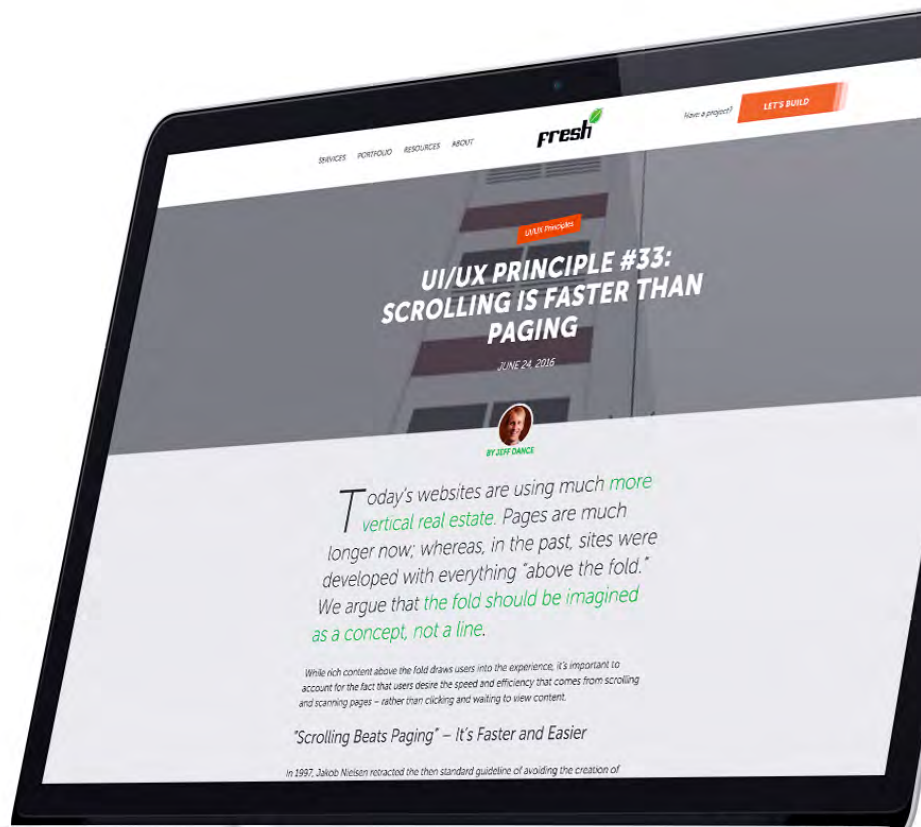
4 screen lengths.  
One screen.

vs.

**26 Seconds**



4 pages.  
6.5 seconds per click.



# UX CHECKLISTS AND HEURISTICS



Thorough evaluation of the site against best practice checklists, heuristics, and frameworks

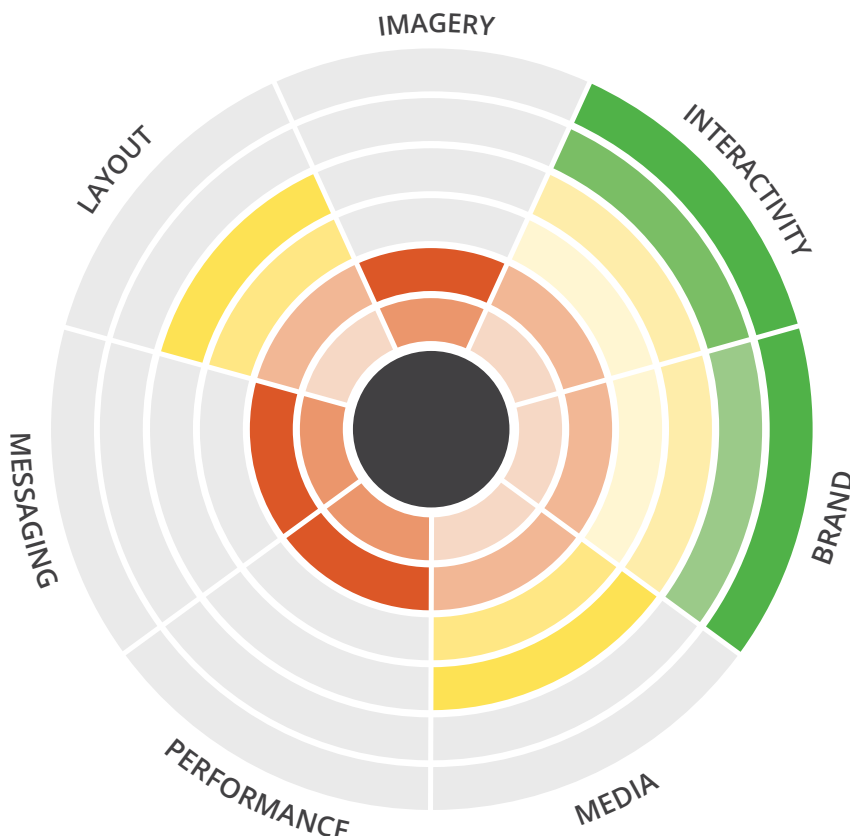
Expert reviews are an effective tool for developing a broad understanding of what is and isn't working with your website, as compared to what is offered by the competition and general UX trends.

**Experts use a checklist or heuristic framework to guide a micro-exploration of specific UX best practices.**

By evaluating the specific best practices, you mitigate risk and open the opportunity to implement incremental improvements that add up.

At Fresh, we use both a 150-point checklist across 10 categories and multiple heuristic frameworks used to analyze whether or not websites are high-end. These expert reviews serve to evaluate, concretely, how to improve a design.

Examples of key elements analyzed include whether content is current, whether included advertisements are professional and relevant, and whether branding is consistent throughout the site. Enlisting an expert to examine the design from different dimensions uncovers areas for improvement that may have gone unnoticed.



## A Framework for High-End Websites

At left is our 7 Ingredients for High-End Experiences heuristic framework. It allows for inspecting and summarizing different aspects of a website's performance:

- **Layout:** Are the foundation and navigation logical?
- **Imagery:** Does the imagery fit and enhance the story?
- **Interactivity:** Does interactivity drive engagement?
- **Brand:** Does the experience reinforce brand credibility?
- **Video:** Does video help tell the story?
- **Messaging:** Does clear, powerful messaging fit?
- **Performance:** Is the tech stack optimized and efficient?

After analyzing each category individually, the expert aggregates the scores, providing a final score for the website.

# UX TRENDS EVALUATION



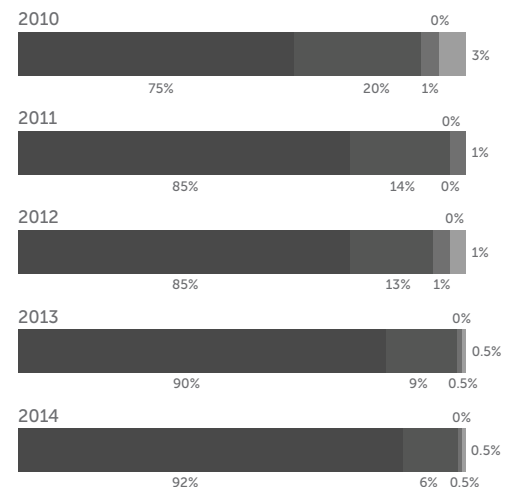
Evaluation of site against new UX trends to see if there are opportunities to do more cutting-edge design work.

UX Principles and Myths are time-tested. They provide a great starting point for understanding if your site or product meets the minimum requirements. But one downside is that they aren't focused on predicting future opportunities for innovation. What are the strategies on the horizon? How can they allow you to take calculated risks that elevate your product?

**A UX Trends Evaluation identifies new directions in the field of UX and assesses whether or not your product could benefit from more cutting-edge design work.**

One fairly obvious trend is that digital experiences should be built with mobile in mind. In [How to Choose Your Tech Stack](#), Gil Edelman writes, "More than 60% of web traffic now comes from mobile devices, and 25% of Americans use only mobile devices to access the internet."<sup>3</sup> It's a fact: if you don't design for mobile, you're failing to support over half of your potential users.

Innovation is exciting. However, in user-centered design, it's important to focus first and foremost on the end needs of the people using your product. While UX is expanding in new, innovative directions, analysis should also prioritize your target users and their needs, matching them with trends that fit.



## Large Screen Sizes and Higher Resolutions Are Trending

In addition to mobile screen sizes, people are using larger screens with higher levels of resolution to access websites. Without designing with these habits in mind, your experience might look and feel low-end. The fact that screens are becoming increasingly larger, with higher resolutions, is important to analyze and account for.

<sup>3</sup> Gil Edelman. "How to Choose Your Tech Stack." Silicon Valley Software Group. September 9th, 2015.

# TECHNICAL ANALYSIS



## Evaluation of the technology constraints that will impact design decisions

**Which integrations are easy to make? Which are hard? What constraints and limitations need to be accounted for? Maximizing design efficiency comes from understanding the consequences of design decisions as you understand and leverage the technology.**

1. **Tech Stack Constraints** – Which libraries are more efficient? Which front-end and back-end technologies speed up or slow down your website?

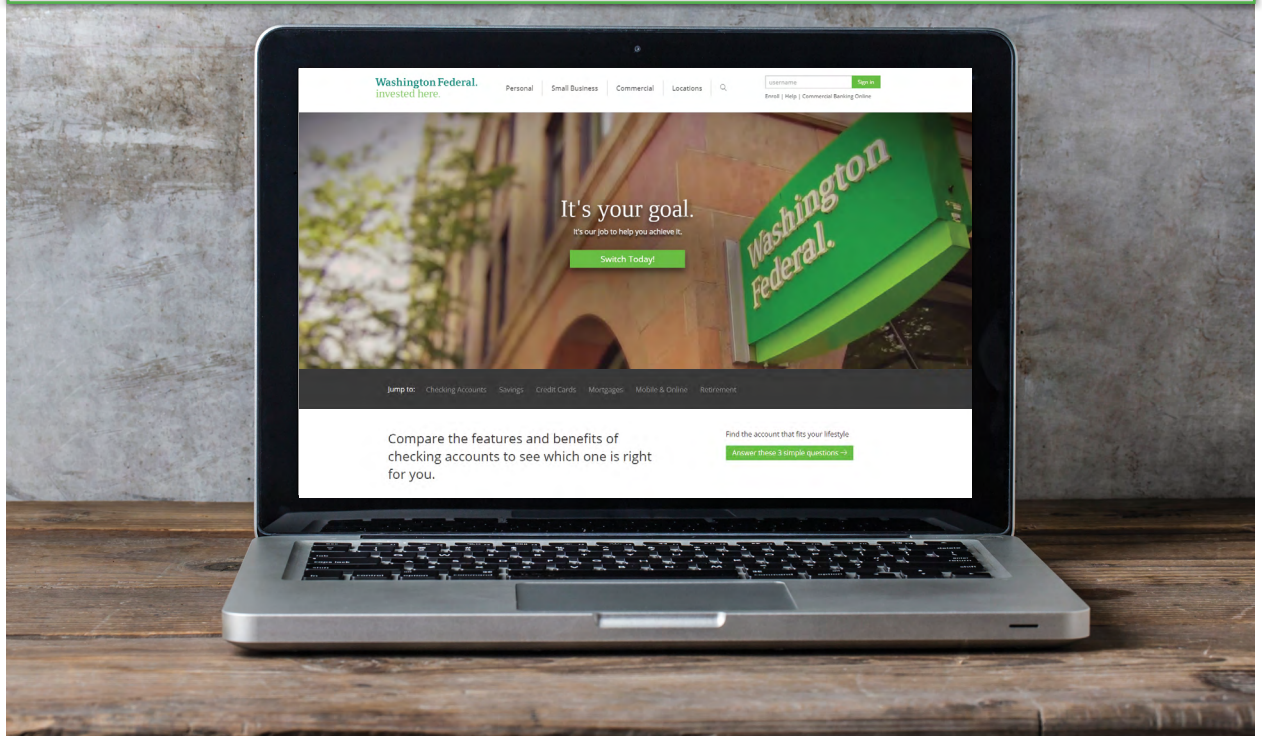
2. **Performance Constraints** – Will the design slow down performance? Users expect that a site or application will perform with speed and reliability.

3. **Integration Constraints** – Your website can be integrated with other systems your business uses. Investigating the constraints posed when it comes to integrating with CRMs, e-commerce microsites, customer data, user feedback, and employee portals ties into performance.

4. **Back-end CMS/Admin Constraints** – Are you able to make updates to your site without the help of a web master? Do the available plugins increase site functionality? Choosing the right content management systems makes maintenance easier. Basic updates to your site can be done easily and efficiently in-house.

## Choosing the Right Tech Stack

We built Washington Federal's website on the Microsoft stack after understanding their technical requirements. By understanding the CMS system constraints, we were still able to build a highly customized design and leverage the right CMS plugins to help development move faster.





# PROCESS ANALYSIS



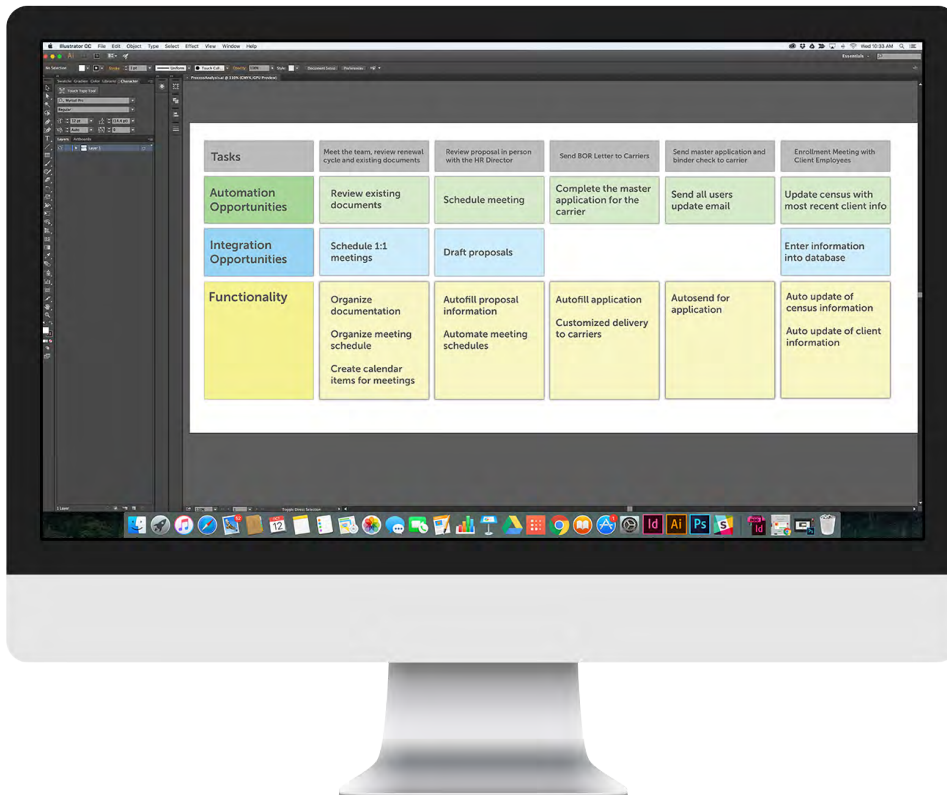
Understand the user flow to create empathetic designs and intuitive processes

**Analyzing the process a user goes through in using a system allows you to paint a picture of the challenge before designing a solution:**

1. **Understand the Challenge and Design with Empathy** – Improving a process or system requires understanding how it works for users. By analyzing the process of the user starting at Point A and reaching his or her goal at Point B, you can design an improved solution with empathy.
2. **Think Through Flow and Focus** – The core of a web or mobile application is its user flow. Understanding how it works allows you to create wireframe screens that align to it. Asking stakeholders and users if it makes sense aligns the experience to their needs.

3. **See the Big Picture** – Thinking at a high level takes you out of the granular details of a design (e.g. the layout of data entry fields) and helps you think broadly about what users are trying to do and how you can help them accomplish their goal.

4. **Consolidate, Separate, or Reduce Processes** – Documenting processes and steps a user goes through allows you to identify which steps should be consolidated and which should be broken apart. Sometimes separate text entry fields can be connected. For example, the billing address and shipping address fields a user is asked to fill relate to different steps, but they share information. A system that consolidates the information automatically will be more user friendly.



## Process Analysis in the Healthcare Domain

One of our clients in the healthcare industry approached us about building a CRM tool to manage their benefits administration. Process Analysis enabled us to answer:

What is unique to the domain? How many steps are in their current process? How much time does each step take? What processes can be automated? Which aspects of the process are most frustrating to users?

By answering these questions, we were able to create a minimum viable product that made their core processes more efficient.

# TAKE YOUR DESIGN STRATEGY FROM ACCEPTABLE TO EXCEPTIONAL

**Data – both quantitative and qualitative – tells a story about what is working for users, stakeholders, and businesses.**

Ultimately, analysis adds clarity and serves as a justification to make important decisions with confidence. As in chess, analyzing the board from a different angle gives us insight into which pieces to move now and which pieces to move in the future.

It's tempting to get complacent with data. But data doesn't tell you "why" something is or isn't working. How do you analyze the data to create insights to make your next design move with more confidence?

That's where UX Analysis comes into play. As opposed to making design decisions that don't have evidence or justification could come across haphazard, UX Analysis provides the multidimensional perspective to take your design strategy from acceptable to exceptional.

We've summarized how to be comprehensive with your analysis, but even a little bit of analysis can enlighten design decisions. Because data drives insights that drive strategy that results in more meaningful user and customer experiences, there is value and ROI in including analysis in your design process.

