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Intelang Case Study

Task

I found myself again in a similar situation where I was the only UX Architect and UI Designer in the company tasked with designing an user-interface for an innovative, data-driven, web-based application, as well as, the external client-facing website. What made it even more of a challenge was that they were a start-up and the CEO was a retired physicist, a brilliant man, but with no IT experience. Therefore, it fell on me to create a design culture based on the latest best practices and methodologies that also included managing every aspect of the project from a frontend perspective.

Processes

First, I'm process driven and provided detailed documentation throughout the project's lifecycle. I maintained my own project matrix that outlined the various tasks, timelines and deliverables charged to me, which I routinely shared and discussed with management, especially during our weekly review sessions, to ensure that realistic expectations were set and agreed upon.

In addition, I provided weekly status reports, which were not required, but helped keep the team and leadership informed, and when applicable included links to articles from industry experts that helped give credence to my decisions. Also, I created on online style guide, as well as, a repository with information and resources that embraced the latest best practices and methodologies for UI/UX design. I also pushed creative assets to a shared drive for easy access by colleagues.

The great thing about working in the web space is the number of options to choose from, but it comes down to establishing your own well-structured and organized set of processes that fosters communication and collaboration.

User Research and Analysis

This project required a different approach because this was a new and innovative application, therefore there was no data or metrics to leverage. Hence, in addition to my role as a frontend visual developer, I also assumed the role of a UX Architect tasked with conducting user research, analysis, surveys and testing all intended to define the overall customer experience.

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The goal of an interactive and visual designer is to make users effective, therefore my initially approach was to find out what problems (pain points) existed, and understand how users dealt with it currently, and start working on solutions. Again, the problem was there was no actual real customer or industry data to examine or evaluate. However, I was fortunate because my direct manager had invested six-years detailing the application's functionality in a set of slide presentations. Nevertheless, several assumptions had to made in an effort to formulate a creative plan and approach to designing the interface. It required several weeks of review and study to gain a cursory understanding of the application, which enabled me to begin designing a series of low-fidelity wireframes.

Empathy is the foundation of the whole design thinking process, and ties directly to the primary principle, wherein you actually conduct research and interact with the people you're trying to help. The company had a handful of prospective clients who we were able share our initial concepts with in an effort to solicit their honest feedback based on their expectations and requirements as a user. The goal was to define the overall information architecture in order to plan the layout and interaction of the interface through a simulation of real use cases and a series of basic, but probing questions:

1. **Learnability:** How easy was it for them to learn to perform a task?
2. **Intuitiveness:** How obvious and easy is the task to accomplish?
3. **Efficiency:** Are users performing tasks optimally? Are there ways to streamline and reduce the time it takes to complete the task?
4. **Preciseness:** How prone to errors is the task? What are the reasons for any errors? How can we improve the interface to lower errors and unneeded repetition?
5. **Fault Tolerance:** A user makes a mistake performing the task, how fast can they recover?
6. **Memorability:** How easy is the task to repeat?
7. **Affordance:** Are interactive elements such as buttons, links and input text boxes related to the accomplishment of a task obviously interactive and evident what the results of a user action will be when the user decides to interact with it by clicking, mouse hovering, etc.?
8. **Information Architecture (IA):** How well are webpages categorized and organized? How well are navigational features constructed?
9. **Findability:** Are there sufficient site features such as search boxes, archive pages, links and navigation features that aid in finding relevant webpages?
10. **Efficiency of Navigation:** How fast and in how many actions (number of clicks, how much text, etc.) does it take to get to page of interest?

The most important and obvious thing to test for was whether users are able to accomplish their tasks and goals, and to ensure they're able to do so in the best and most efficient way possible. It was their actual experience that helped set a baseline for further development.

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UI Design

Often, the interface design (UI) is intertwined with the experience design (UX), but they are entirely different. However, I personally see both fields as a whole. User experience is comprised of both functionality and visibility, but when addressing the two as linked fields, it's obvious that one relies on the other.

It was my responsibility to ensure that an end product achieved its **core business objectives** by driving conversions and revenue through the most efficient and engaging experience possible. I often collaborated with the lead developer and software engineer in an effort to gain their insights to help drive the design. Designs rely on a process of iteration, with new inputs helping to support strong outputs.

Tools

My design tool of choice was **Sketch**, which is a terrific interactive and prototyping tool for creating wireframes, mockups and app designs. The targeted devices were a desktop browser, but primarily a tablet. Later, I used **Bootstrap** to build-out a functional prototype.

Design Thinking

I took the lead and confidently presented myself as the resident expert in the web space and it's relevant disciplines and technologies, but always remained humble and listened to my colleagues, which helped me to continue to grow as a professional. I welcomed everyone's input, suggestions and ideas, and I was never territorial, but was always prepared to defend and explain my decisions.

Additionally, I follow experts in various disciplines and technologies focused solely on the web space, which not only helps me keep up to speed on the latest trends, best practices and methodologies, but provides me with resources I can reference when advocating for a particular solution. This approach worked especially well with colleagues and clients unfamiliar with the design process because it served as a valuable educational tool. I would direct them to the exact information that supported solutions I was recommending and so often the information was so detailed and thorough that they became advocates themselves.

All these efforts helped to drive an environment and culture that was focused on the user/ customer experience. Again, I embraced design thinking to combine the problem-solving roots of design with deep empathy for the user. It's been my experience that when teams collaborate, they get to a solution faster.

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Solution

Now, there were a handful of iterations and variations proposed initially in the wireframe phase, but more fully explored during the prototype phase in a concerted effort to reach the desired solution.

After very careful review, testing and deliberation the team choose a solution that best leveraged both a minimalistic, but highly intuitive and functional interface. This solution generated very detailed data in a two-column layout that also allowed the user to easily navigate and dive deeper into the system for information more relevant to their search.

It proved successful with our small customer base because the overall design and functionality exceeded their expectations. We focused on every aspect of the interface including the navigation, color scheme, typography, iconography, buttons, tool tips, visual cues, feature set, collapsible panels and a responsive layout. However, we were always mindful that the experience makes the product, not the features.

Results

The end result was that we were finally able to successfully generate actual data that correctly populated the interface based on the user's interaction and search criteria. However, in order to design a truly successful product you need to adopt a process of continuous improvement. Iterative design follows the idea that design should be done in repeated cycles: it's a process of constantly refining and improving the product based on both qualitative and quantitative feedback data from your users. Unfortunately, the application was never deployed because the company lost it's funding, and subsequently, the team was laid-off.

I was able to design and build-out the external client-facing website using Bootstrap, but like the application was unable to deploy the site. However, I can share the prototype, but had to strip the content from public view given it's propriety nature.

[Product Prototype Template](#)

The overall goal was to leverage the company's website as the primary lead generation tool in an effort to attract prospective customers through a comprehensive digital inbound marketing strategy using various media channels and assets. I created a comprehensive marketing strategy because consumers do not want to be sold too, they want to be educated, but again, it was not implemented, but all the documentation was retained for future reference.