Case Study: Growing the UX Design Team

INTRODUCTION

Supply Chain Management is at the heart of our modern economy. Supply chain monitoring, which helps to ensure that shipped items arrive when and as expected, keeps chaos at least somewhat at bay by synchronizing the activities of the transportation network. Maximizing visibility into shipping trends assists in bringing order into the supply chain by helping commercial customers to understand more than just where their shipments are and how they are progressing. By discerning patterns across all shipments, lanes, and carriers, commercial organizations can benefit in many ways.

CLIENT DESCRIPTION

[REDACTED] provides enhanced visibility for products in transit and storage to commercial customers around the world. Its Global Command & Control Centers are capable of expert, real-time monitoring to ensure the security of precious cargo—on land, at sea, and in the air—across the global supply chain.

[REDACTED] clients utilize the company's data-logging devices that are attached to shipments. The devices track the geographical progress of the shipments and key characteristics, including temperature, humidity, and carbon dioxide levels, of the shipping environments.

Historically, [REDACTED] was accustomed to selling devices rather than building software. As an organization, it was not accustomed to developing software-based products, using data to obtain product insights, or gathering feedback from software end-users.

PROJECT DESCRIPTION

The client wished to more effectively use all of the data that its devices were already collecting by applying that data in aggregate to build more and better shipping management tools for its customers. By improving on the capabilities of its existing device, the client sought to profitably help customers to discern important patterns across all of their shipments.

OBJECTIVES

The overall goal of the project was to enable the client's customers to use its devices to better understand lane (shipping route) health and carrier (shipper) performance. The supporting objectives were as follows:

- Reveal patterns across all of a customer's shipments, lanes, and carriers by creating data storage and visualization products that would help the customers to understand more than just their shipments' geographical locations, rates of progress, and environmental characteristics;
- Demonstrate the return on investment (ROI) associated with first designing with validation the new interface for the core platform product, before proceeding with development. Obtain end-user validation first to avoid possibly costly design updates after the code is developed; and
- After demonstrating the ROI of robust, end-user-validated UX design, merge the client's current development process with User-Centered Design (UCD) methods and checkpoints to ensure consistent and speedy progression into product development.

MY ROLE

As UX Lead, I assumed both a client-facing role and a hands-on internal management position.

In my client-facing role, I:

- Positioned my UX team as design experts who are highly responsive to client preferences;
- Responded to changes in client priorities while maintaining appropriate focus on the project's primary objectives;
- Gauged the current understanding of UX within company and educated employees to increase that understanding;
- Identified in-house skills and resources available via the client's current employees to fill functional gaps; and
- Coordinated scheduling, executive presentations, and cross-project UX resourcing needs to facilitate company-wide UX acceptance.

To manage and support my internal team, I:

- Built a UX team with an appropriate skillset to handle enterprise system work;
- Supervised junior UX designers, front-end developers, and a graphic designer to develop a consistent Design System, by:
    - Defining the product-specific interactions needed for the business requirements with the junior UX designers;
    - Reviewing coding packages with the front-end developers; and
    - Developing the overall style (look & feel) of the product with the graphic designer;
- Collaborated with the Product Manager and Program Marketing Leads to develop innovation and feature roadmaps, by:
    - Organizing and roadmapping future product growth with the Product Manager; and
    - Aligning business and product requirements with the Program Marketing Leads;
- Established a repeatable User-Centered Design development process;

- Assigned documentation tasks to members of the team as needed; and
- Worked closely with the entire team to collaboratively resolve issues.

Under my leadership, my team and I transformed a company with low UX-maturity into a company with significantly more mature UCD processes.

PROCESS METHODOLOGY

Under my guidance, my team devised and implemented the following methodology to execute the project:

- Facilitated regular in-house usability testing sessions to generate transparent results;
- Conducted interviews with account managers to establish direct contact with end-users;
- Arranged and conducted regular cross-team presentations on design efforts and options for Product personnel and executive leadership;
- Reviewed development backlogs and organized them by UI complexity and UX effect to assist with release prioritization;
- Scheduled and hosted cross-team brainstorming workshops to help facilitate a unified Experience Vision;
- Supervised efforts to unify product-specific UIs into a company-wide Design System package, for the purpose of enabling faster development by building the front-end code in advance;
- Worked with product owners to develop roadmaps for feature releases and growth, including documenting conclusions to efficiently share information company-wide;
- Created a user feedback data warehouse with reports showing common issues across clients, user personas, and key tasks, for the purpose of feeding the next round of requirements; and
- Presented new concepts to the client's existing and potential customers to obtain both executive leadership buy-in and end-user validation.

OBSTACLES & CHALLENGES

The project's obstacles and challenges included:

- **Low design maturity.** The client was not experienced with UCD, and while the executive team recognized the importance of developing a product based on the end-users' needs, the client as a company did not fully understand or appreciate the effort required to ensure that the visual aspects of the new product were sufficiently well developed.
- **Restricted access to end-users.** Despite the fact that presenting design concepts to end-user customers early and often is the heart of UCD, it was challenging to gain access to the coveted end-users at customer sites.

    - Account managers worried about wasting customers' time with half-baked design ideas. Product owners worried about showing early concepts and receiving negative feedback.
    - Previous designers for the client had left poor impressions, creating a climate for my design team that initially lacked trust and a reluctance to provide much-needed customer access.
- **Lack of UCD focus in the existing development process.** The client's established development process permitted Product Managers to make feature decisions without transparency.
    - Product Managers were not obligated to specify the origin of any feature requirement, how the new feature would improve product value, or who the new feature would support.
    - The addition of new features was inconsistent and mainly in response to customer-specific requests; feature development was not conducted in the context of creating enterprise solutions.
    - Decision-making on features development was not driven by corporate-level executives.
- **Time and budget constraints.** The client had unrealistic expectations about the time, effort, and resources required to accomplish the project. Coupled with tight deadlines, the client expected my team and I to serve as design leads while persisting in questioning our decisions both large and small, but without allocating sufficient budget for my team to conduct and present adequate research to credibly support our design decisions.

SOLUTIONS

My team and I, under my guidance, devised the following approach to address and overcome the project's obstacles. We:

1) Involved the entire client team in the design process, by:
- Engaging customer service employees and account managers (the bottom-up approach);
- Presenting UCD ROI projections to executive leadership (the top-down approach); and
- Identifying additional client personnel to support the UX team.

2) Adhered to UX standard procedures and best practices, by:
- Developing interactive prototypes for testing, and then internally testing and fine-tuning the prototyped designs, with the junior UX designers;
- Developing a new UI "Skin" with the graphic designer, by consulting extensively throughout development process with the Brand Managers and Program Marketing Leads to obtain approval for the final Skin designs;
- Combining the interactive prototypes and UI Skin to create a highly functional prototype complete with a finalized look and feel, to accurately mimic the system for testing with end-user customers; and

- Reviewing current development backlogs and reorganizing the backlogs by UX priorities.

3) Obtained customer validation before proceeding with development, by:
- Leveraging the trust that was established by creating the highly-interactive prototype, which resulted in successfully gaining sufficient access to end-user customers;
- Testing the prototype with end-users to obtain feedback on the design; and
- Receiving high marks on the design, thereby validating that development of the new prototype should proceed.

4) Efficiently moved the design through development, by:
- Preparing detailed documentation for the approved prototype, including:
    - Defined requirements for code packages, to assist the front-end developers with building the new UI code and resolving discrepancies; and
    - A Style Guide to provide instructions to the front-end developers;
- Creating a Design System utilizing the code requirements and Style Guide to facilitate future developments and additions of new features; and
- Establishing a roadmap using an Agile development process for the release of the product updates, with emphasis on releasing the updates in a way that would not negatively impact current end-users.

5) Closed the design process feedback loop, by:
- Establishing and executing repeatable activities, including:
    - Design sprints, ensuring that the design team would stay at least three sprints ahead;
    - Regular review sessions with an expanded group of employees; and
    - Ongoing qualitative and quantitative research sessions with end-user customers;
- Leveraging newly-identified UX resources available through the client's existing employees before suggesting the hiring of new junior resources; and
- Preaching Design Think to *all* of the client's employees and encouraging ongoing cross-team collaboration.

RESULTS

My team and I produced the following results for the client:

- Created a product Experience Vision, designed by inclusion and accepted at all levels of the company;
- Developed a finished Design System that documents the various UI components, interactions, styles, and templates to ensure design consistency and simplify future development;
- Established a product development process that is driven by end users' needs, rather than the loudest voice in the room;
- Cultivated a culture in which the client and its customers are excited for the next generation of the product and feel included in the design process; and

- Demonstrated that UX is not an afterthought, but rather the driving force behind product innovation.

CONCLUSION

In helping to establish a UCD-centered culture at [REDACTED], I learned that, as a leader, simply knowing the solution to a problem is not sufficient. Creating cultural change for the purpose of prioritizing User-Centered Design requires proactively and thoroughly communicating with personnel at all levels of the organization. I gained an understanding of the imperative to communicate widely, early, and often.

I developed the capacity to build an inclusive environment that fosters product ownership at all levels of an organization. I learned to recognize the existence of in-house personnel with design-oriented mindsets, and to effectively cultivate their talents and support.

I learned how to circumnavigate the “theater of UX” and instead focus on the most important aspects of the development process. The core of UCD product development is based in robustly building, reviewing, and revising the design with end users—work that simply does not happen in the executive boardroom.

I realized the value of in-house product testing. People of all backgrounds, even those who are not end-user customers, can provide remarkably useful feedback on design prototypes—provided that they are not among the same personnel who are directly involved with the product design process.

By growing the design team at [REDACTED], I developed—in both myself and others—a comprehensive and lasting appreciation for the importance of User-Centered Design in successful software-driven companies.