Hi. I am Rajan. I care about User Experiences.

I work at the point where design, art and technology converge to form stories, propositions, solutions and delightful experiences.

I love looking at the big picture and leading stakeholders on a journey to a place where solutions, based on the needs of the most important members of the journey – the users, come into sharp focus.

This journey consists of user researching, designing, prototyping, iterating, user testing and validation. In many cases, I also code the front-end solution.

My toolbox consists of a number of tools that you can view here. (link to skills along with skill proficiency)

Let me show one of these journeys. (case study for circle)

**Background**

mCLASS:Circle is an early childhood assessment software in English and Spanish for pre-Kindergarten. The software solution enables teachers to focus on their interaction with students and makes pre-K assessment administration, analysis and action easier to manage.

* Measure critical skills for early literacy, science and math with short, research-based tasks.
* Monitor the development and skills included in all 11 Head Start (link) domains.
* Observe and record behaviors to gauge social and emotional development.
* Identify areas of strength or concern with detailed reports and analysis.
* Plan individual, group or class activities based on performance and progress.

Please note that this project is covered by NDA (Non-disclosure agreement). In order to comply with the NDA, I have only included materials and content that is publicly available on the Internet.

**The Challenge**

The assessment was traditionally administered using paper and pencil. The first iteration of the software was designed work on two different platforms. The assessment of students was done on mobile devices running Windows (QT). Aggregate reporting was available and optimized to run on Desktop machines.

In order to stay relevant in the market, Amplify wanted to port the designs on to newer touch devices while addressing the pain-points that users had faced in the first iteration.

Here is a video that shows the old application in action: <https://www.youtube.com/watch?v=ZNy9d4cia9I>

**My Role and Process**

I was the Lead UX Designer for this project and worked along with a Visual Designer and User Researcher. The process I followed for this project in brief:

User Research with mCLASS:Circle trainers and pre-K teachers

Synthesis of findings

Workshop with internal stakeholders

Documentation

Wireframing and Prototyping

Rapid Iterative User Testing

Visual Design

Support front-end effort

Product release

**Timeline and Process Breakdown**

**User Research with mCLASS:CIRCLE trainers and pre-K teachers**

Since this product had been the market for a while, the most obvious place to start was taking to teachers who were already using the product and Amplify trainers who were conducting training sessions for teachers on how to use the product.

Goals

1. Understand how users were using the product.
2. Document pain-points with the existing product
3. Document what was working well in the existing product

I worked along with a user researcher to define the goals, protocols and questions.

**Workshop with internal stakeholders**

Once we completed user research, we synthesized the findings. I setup a series of workshops with internal stakeholders. The workshops were broken down into two parts and included cross-functional team members from design, product management, development, QA, documentation and professional services (that included former teachers).

Workshop 1: Rethinking the assessment and reporting platforms

As mentioned before, the mCLASS:CIRCLE system was broken down into two parts – assessment on mobile devices running Windows QT and aggregate reporting on Desktop machines. The main reason for this multi-devices approach was:

1. Mobility was a big concern when assessing each student in the classroom. Smaller devices were perfect for this one-to-one assessment.
2. Larger screens were perfect for viewing aggregate data and follow up actions like creating groups, assigning suggested activities and printing reports.

With the advent of tablets, this dual system was proving to be cumbersome for teachers who had to jump from one device to another for assessing, analyzing and assessing again. So, the goal of the first workshop was to rethink this dual device approach and come up with ideas for combining the two platforms.

In order to make the workshop fun and engaging, I created a theme around the Justice League with each participant being a potential member to the team. There was an underlying story and each activity carried forward the story while introducing users, user challenges and call to action for generating ideas collaboratively.

Workshop 2:

The second workshop focused on the actual product challenge. I introduced the findings from the user research session to participants. I held a series of activities that identified product vision and goals, primary users, user scenarios, and collaborative idea generation to address the user scenarios.

Based on the user research and design workshops, we came up with the design goals and objectives for the project.

1. Design a single device system that helps teachers assess pre-K students, analyze results and take follow up action. The software had to work on both touch and non-touch devices.
2. The assessment has both student-facing components and non-student facing components. Scoring items on student facing assessments should be visible to the teacher, but invisible to the student. Scoring items on the non-student facing assessments should be intuitive enough to keep up with
3. Easily able to view and understand aggregate and single student data in multiple languages (English and Spanish).
4. Create an intuitive user experience that will save teachers time to focus more on classroom instruction.

**Documentation**

**Wireframing and Prototyping**

I did a few wireframe iterations of the main screens of the application using Photoshop. Since we were combining assessment and reporting together with support for touch and non-touch devices, it made sense to prototype the entire solution for user testing. To enable the development team to start work in parallel, I prioritized the features to be prototyped. I used Justinmind to create prototypes.

**Rapid Iterative (User) Testing**

We used Rapid Iterative Testing to test the prototype with pre-K teachers. I worked with the User Researcher to come up with the goals, protocols and questions for user testing. The process involved testing the prototype with 2-3 users, finding out pain points and plus points and immediately making changes to the designs based on feedback. This method was very useful in iterating very quickly to arrive at user-centric solutions with great experiences.

**Visual Design**

Once we had a clean integrated solution that was user validated, I worked with the visual designer to finalize the look and feel for the application. We presented a couple of ideas to our internal stakeholders before finalizing the visual design. We also quickly user tested the visual designs with actual users to get their feedback as well.

**Supporting front-end effort**

In order to fast track front-end development within Amplify, I have been one of the founders and active contributor to an internal UI Toolkit Library. You can read about it here (link).

All Amplify projects are Agile. For this project, I worked with the development team in two-week sprints to create UI widgets for the toolkit and actual front-end code for product features. In some cases, I also wrote Selenium tests for testing the front-end.

**Final Design Screenshots**

Include images and link to the mCLASS:CIRCLE website.

Some of the other work that I have done.

**DIBELS/IDEL**

Early literacy assessment software in English for grades K–6 and Spanish for grades K–3. This is one of Amplify’s oldest legacy products. The application works on two different platforms. The assessment platform is available on mobile devices. Aggregate reporting was available and optimized to run on Desktop browsers. (Link to the amplify website) http://www.amplify.com/assessment/mclass-dibels-next

Role: Lead UX Designer

Work done on this product:

1. Re-designed the entire reporting application based on extensive user research and user testing
2. Data visualization
3. Designed various features to improve product utility based on business requirements

**Pathways of Progress (Design, Code)** [**https://vimeo.com/130555699**](https://vimeo.com/130555699)

Pathways of Progress is a tool designed to empower teachers to make better decisions about goals to set for individual students; and changes to instruction in real-time when students aren’t making adequate progress.

Pathways of Progress places students into one of five Pathways based on the amount of progress they make over the course of the year in comparison to other students with similar initial skills.

Role: Lead UX Designer and Front-end developer

Work done on this product:

1. Designed the entire feature based on extensive user research and user testing
2. Data visualization
3. Coded the main goal setting tool by creating UI widgets for the UI Toolkit Library.

**Reading3D**

Observational reading assessment software in English and Spanish for grades K–6. The application works on two different platforms. The assessment platform is available on mobile devices. Aggregate reporting was available and optimized to run on Desktop browsers. (Link to the amplify website) http://www.amplify.com/assessment/mclass-dibels-next

Role: Lead UX Designer

Work done on this product:

1. Re-designed the entire reporting application based on extensive user research and user testing
2. Data visualization
3. Designed various features to improve product utility based on business requirements

Reading4D

Superschool?

**Accessway,, Navigate (Social)**

Accessway and Navigate are iOS apps help the visually impaired navigate the New York Subway. The apps use indoor Bluetooth Low Energy (BLE) beacons to deliver relevant, location-based information about where they currently located within a station and how to navigate to the requested destination. Both the apps won Honorable Mentions at the MTA 2013 AppQuest and MTA/AT&T AppQuest 3.0 (2015) respectively.

<http://2013mtaappquest.devpost.com/submissions/15334-accessway-for-a-more-inclusive-subway>

<http://devpost.com/software/navigate-ky1ur>

Role: I was part of a team as a UX Designer and iOS developer

Work done on the product:

1. Designed the user experience of this product
2. Developed core beacon module for the iOS application

Role: I was part of a team as a UX and Visual Designer

Work done on the product:

1. Designed the user experience of this product
2. Developed the visual design and branding

**RapidFTR (Social)**

RapidFTR is a versatile open-source mobile phone application and data storage system that helps humanitarian workers collect, sort and share information about unaccompanied and separated children in emergency situations so they can be registered for care services and reunited with their families. RapidFTR is specifically designed to streamline and speed up Family Tracing and Reunification (FTR) efforts both in the immediate aftermath of a crisis and during ongoing recovery efforts.

Add me to LinkedIn and view some of my recommendations here (LinkedIn)

Download my resume here or send me an email at [ard.rajan@gmail.com](mailto:ard.rajan@gmail.com)

View my older website and work here from a time when Flash was still alive. (link)