

Designing Artificial Intelligence at Scale

Chatbot Design Systems for Human Capital Management



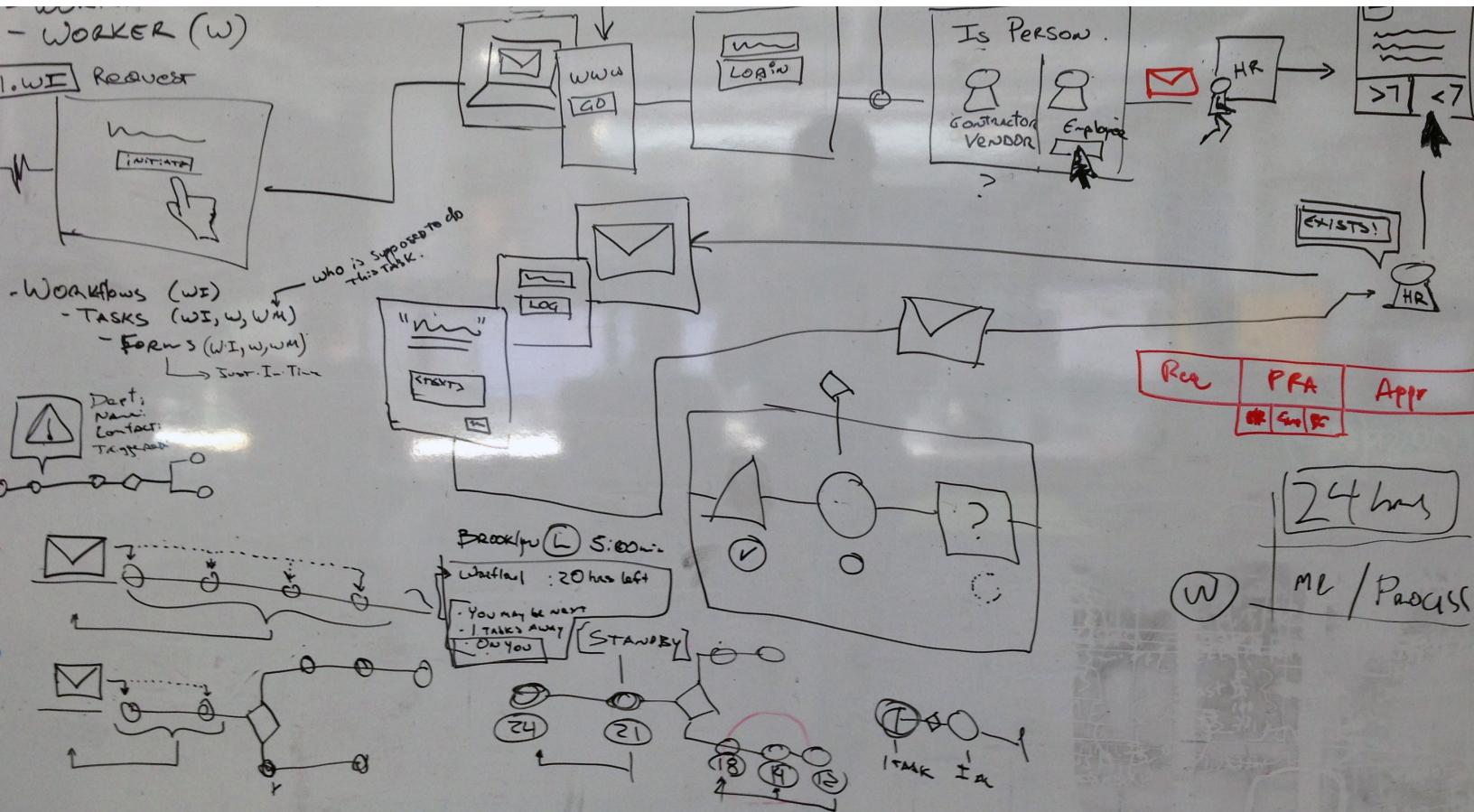
PRIMAL LOOP was approached to consult on a unique mobile interface platform for a leading human capital management solutions provider. This client is an incubator project of about five-hundred employees conceived as an offshoot of a much larger enterprise. Like their parent company, this startup is responsible for innovative human capital management solutions that grow quickly and adapt flexibly to the needs of businesses globally.

The Challenge

One of the principles of this capital management solutions incubator is that client preferences for how HR and payroll are managed differ from organization to organization. One company's idea of a perfect interface for managing HR may depart significantly from another's. To this end, the incubator houses within its full staff—the platform product team, front and back end, security, and support—a subteam dedicated to mobile applications.

The challenge, then, was to create out of a complex system, a user experience for mobile devices (iOS and Android) that operated in the intuitive and commonsensical ways that we—especially the non-technical among us—are accustomed to. Consider the task of requesting time



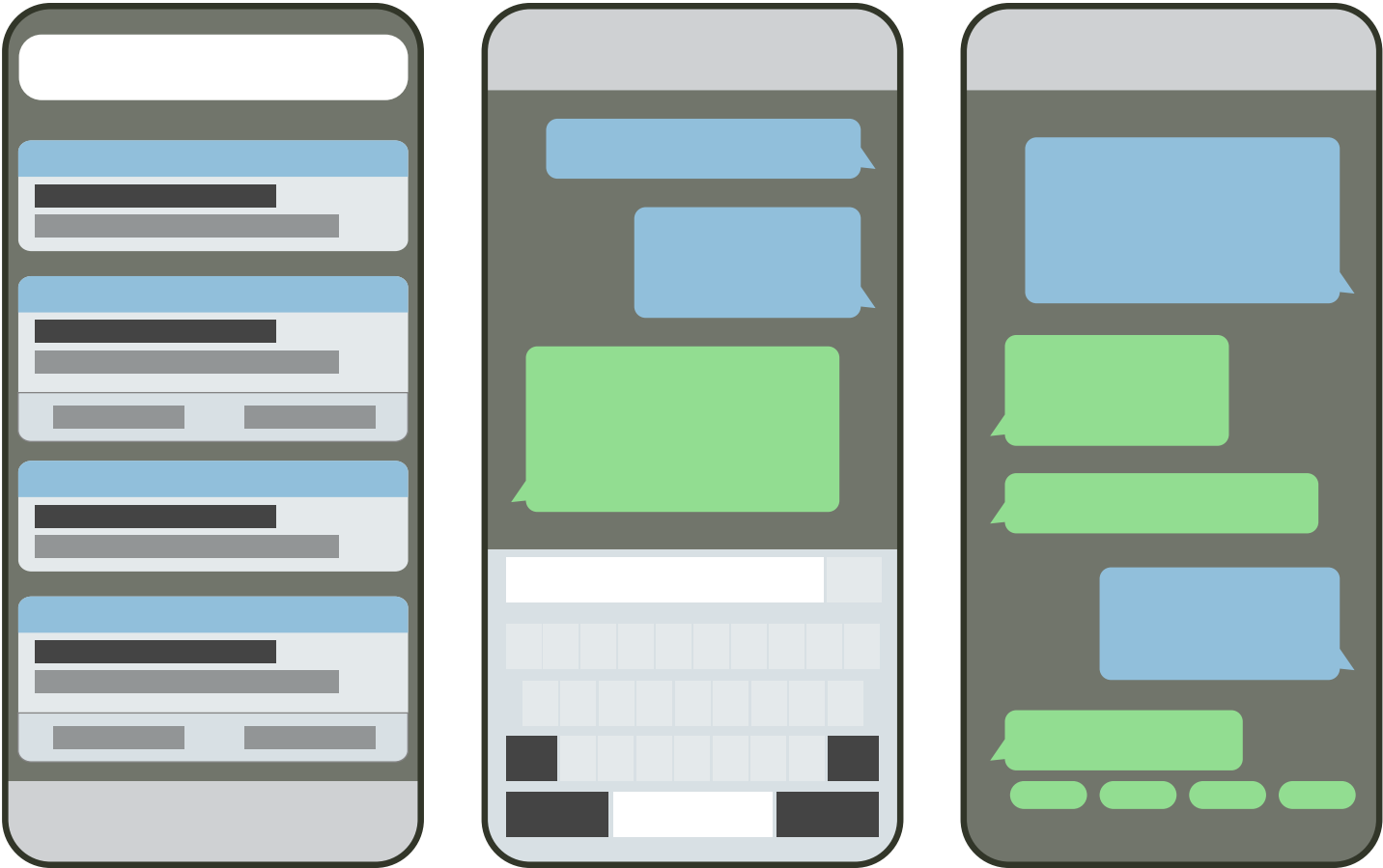


off. Now think of all the levels of communication and approval that a request typically has to go through—not to mention all the various technical systems that need to be updated, the people who need to be notified as a result, and so on. As many of us across various industries know, such a convoluted process can put a strain on daily operations, logistics and resources. But what if an HR interface were as simple to operate as talking to a single manager or team member? What if the process of requesting time off were as easy as tapping “I’d like to take the following days off...” onto a device?

The Solution

Primal Loop collaborated with the client to implement precisely this kind of functionality through the use of a chatbot. Rather than wading through numerous menus and filling out countless forms, a user simply types a request into a textbox. The brains of the system takes care of the rest. In the case of time off, it looks up to see how many days the requestor has, fills in dates on her/his calendar to mark the time off, and sends emails to the teammates and managers who should be in the know.

With such a solution, the chatbot captures and responds to all kinds of requests across a team. Its focus becomes, in a sense, what users want to do: virtually any request can be entered and processed through the chatbox. Meanwhile, the other component of this interface is the timeline. The timeline may contains each team member's requirements to remain compliant with an organization's policies or remind the user of actions that are still open. In other words, the timeline would answer the typical new hire questions like: what do I need to do now, what do I need to do next? And, what needs to be done in the next three weeks? Just imagine the relief such a solution can bring to Human Resources teams. What may have required the attention and time of three people, including finding the right paperwork and arranging onboarding meetings, can now be done with a simple mobile app.

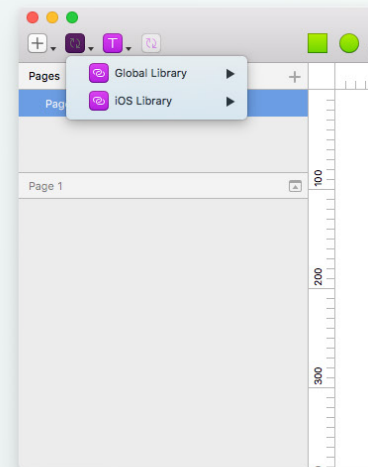
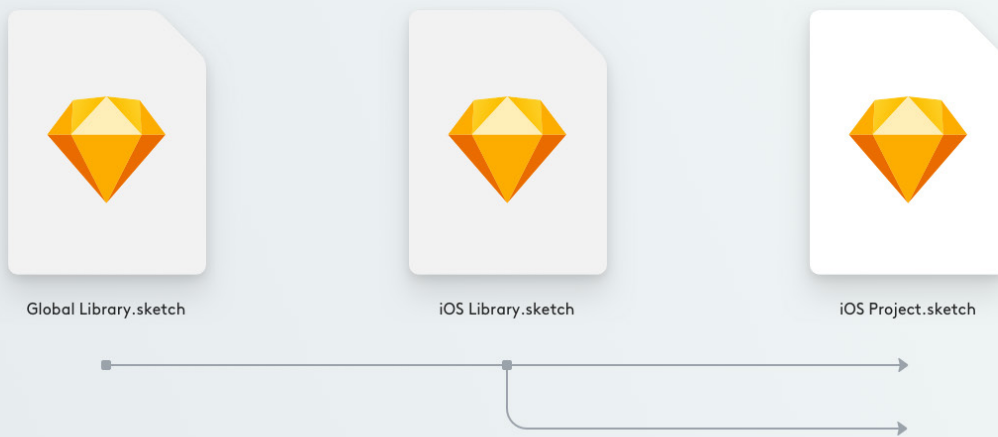




Everyday, millions of employees have to fill out long forms, questionnaires, and surveys. The data that is captured is often out of date and ineffective.

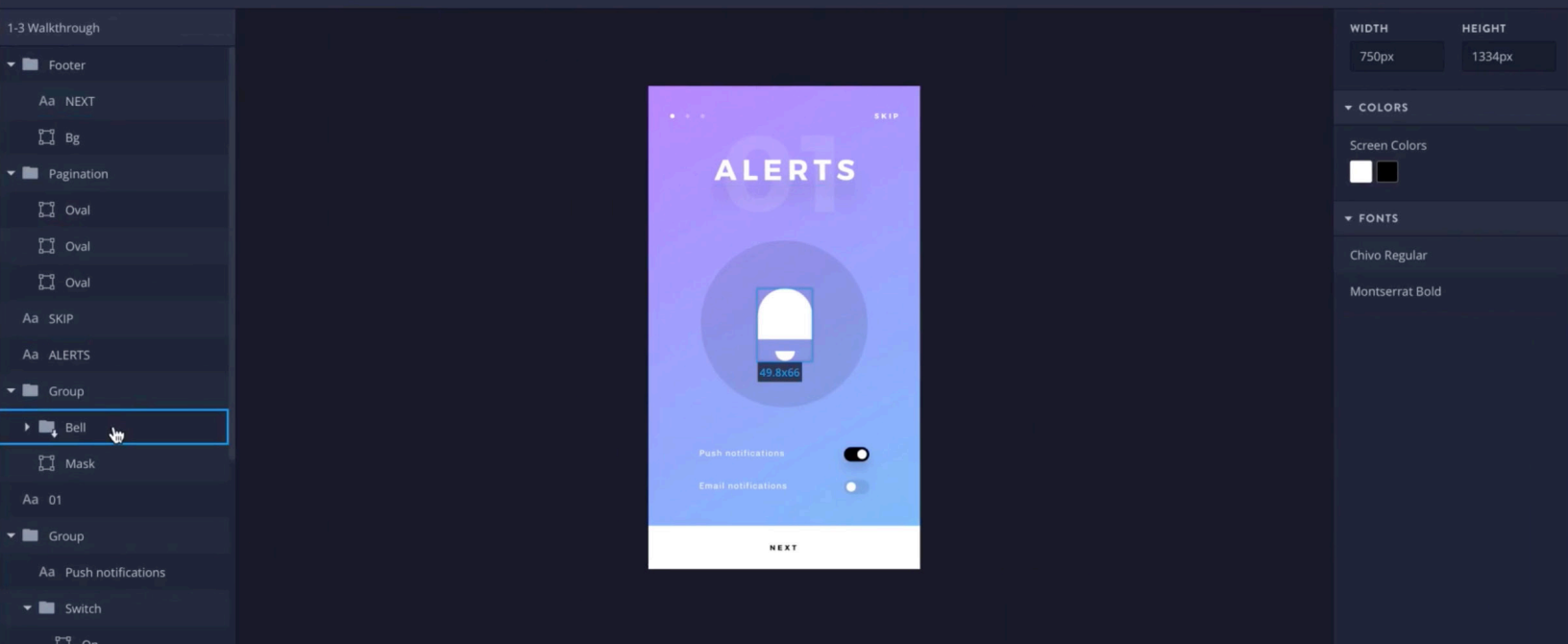
The Outcome

The approach to building this interface was threefold. Firstly, in order to save time developing code between both iOS and Android (a principal concern), the organization made a decision to use React Native, a framework for building native iOS and Android apps with Javascript. This has allowed Primal to create designs whose code shares roughly 60% of its resources between iOS and Android versions. The biggest challenge to leverage this framework's benefit is to focus on functionality that can be shared between both mobile platforms. In addition, a risk posed by departing from native programming is the reliance on libraries, making communication between design and development imperative for the product's success. Secondly, Primal



medium.com/@christopherdeane

has made use of the digital design software, Sketch, whose Library feature has been crucial. This meant that whenever any change across design is made, it changes it at the library level thus updating everywhere else that component may be used, thus ensuring up-to-date fidelity and functionality. Finally, Primal has made extensive use of the prototyping platform InVision and InVision Inspector due in no small part to its Sketch-compatible



vimeo.com/invisionapp

library functionality. But most importantly, because it allows the whole team to work from a single source of record, the sales team can see what is in development; the product team can see design progress; developers have the latest stylesheet information; and stakeholders can use its prototype capability to demonstrate upcoming features.

One of the important takeaways from Primal Loop's work in the incubator is how truly elegant solutions really seem to stack up when scaled. At first glance, a chatbox interface appears straightforward, even unremarkable. But here the elegance lies in the way such an interface mirrors intuitive human communication—simply talk to it the way you'd talk to a colleague. While the application of the technology may seem simple, some of the most complex problems require strikingly intuitive answers. Multiply the use of such an effective solution across an enterprise, and the returns on such an investment can be enormous.

KEY CONSIDERATIONS

Conversational interfaces collect feedback from employees in the most transparent way.

Sentiment and contextual analysis can help organizations gather greater insights.

Asynchronous participation, may result in a higher rate of participation and compliance.