Embodying Compassion: Project Plan

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Executive Summary

Mission of application

This app will enhance the first transcultural exhibition in America solely devoted to Bodhisattva Avalokiteshvara. It will serve as an onsite guide for those who have the privilege to experience the Bodhisattva exhibit by providing contextual content. Furthermore, this contextual content will also provide those unable to attend the exhibition in person a remote gateway to experience it, increasing the number of people impacted by the exhibit, while also.

Functionality overview

The app launches at its title view. It'll then transition to a loading screen prompting the user to enter. Upon entry, the user will decide to either enter the explore view or search for a particular artifact's view.

Explore View

From this view, the user will be able to access any of three theme views that mirror the actual exhibit's themes. The theme views will contain artifact views.

Artifact View

Each artifact view will be uniquely identifiable by a number and/or QR code linking it to the actual exhibit artifact. Each artifact view will also contain a bucket of rich multimedia context in the form of concise captions, narrated explanations, and visuals (either high resolution stills or video) showing you a particular artifact in detail. It will have:

- an **audio guide** enunciating an artifact's title.
- a concise and contextually informative **caption**.
- a **multimedia section** containing videos and audio clips (e.g. short films related to pilgrimage sites and rituals, recordings of music, and chanting) related to the artifact.
- a zoomable **full screen image view,** that'll pop up when you tap on the image.
- Where it applies, an artifact view should have a gallery of comparative images. See **Comparative Images View**.
- a **map** locating the artifact's geographical origin.
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The app will also have sidebar navigation that's accessible from every view on the app.

Comparative Images View

This will be a full screen view using the aforementioned **full screen image view**. It'll show images from different cultural contexts to be compared to the original artifact. Each image will have an overlayed caption. The user will be able to see the next or previous image in this comparative images gallery if they swiped either left or right.

Sidebar Navigation
As the primary navigation tool, it'll allow the user to jump to the about view, the explore view any of the three theme views. It also allows you to search for an artifact by number or name.

About View
This view will contain text explaining the purpose of the exhibition and app.

Theme View
This view will contain a grid of titled thumbnails, each linking to an artifact view. Tapping on a particular artifact will bring up its artifact view.

Search Results View
This view will be accessible by tapping the 'search by artifact' button on the loading screen or the side navigation bar. It will give the user an option of either typing out the title of the artifact or scanning the physical artifact's QR code to find it. Upon successfully executing the search, this view will show thumbnails and titles of artifacts that match the search query entered.

Technical Considerations
We finally settled on a cross platform mobile app to be built on ionic, "a beautiful, open source front-end framework for developing hybrid mobile apps with HTML5," CSS, and Javascript (all web development languages). We will be couching the app in phonegap, another framework that'll will compile the app in the cloud and churn out downloadable versions of it for iOS, Android™, Windows® Phone, Blackberry® 5/6/7 and webOS. This will ensure that we reach the largest possible audience.

That said, we will be storing the bulky multimedia on a remote on a Parse backend to keep the downloadable app light; we'd like it to download onto the user's phone as quickly as possible.

Overall Goals Scope

Goals
Our primary goals is to deliver an app that will provide contextual information for those visiting the actual exhibit while acting as a virtual exhibit for those unable to attend. To this end, we will incorporate our client's feedback on each iteration of the app into the next iteration while prioritising critiques of the app's functionality, before critiques of its user interface design. However, once we achieve this goal we will reach for our stretch goal.

The stretch goal will be to make this app reusable in other exhibits. This would mean developing a web app through which an 'exhibit owner' can create an exhibit mobile app, add content to it, and publish it to different platforms' app stores. Once downloaded, the exhibit owner should still be able to edit the app's content and have those changes reflected on the mobile apps linked to her/his exhibit.

A stretch goal to this stretch goal would be to enable multiple exhibit owners create exhibits, edit them, and publish their respective changes to the mobile apps connected to their particular exhibit only.

Design

With the stretch stretch goal in mind, we are designing to ensure that the mobile app's content can be edited by individuals without programming experiment. The title of the exhibition and its about page should be editable remotely. Secondly, the manner in which content in the app is organised as well as the actual content ought to be editable as well. At the moment, this means that one should be able to edit the number of themes on the mobile app, shift artifact views between various themes, and edit the artifact view themselves. The glossary should be editable as well.

As such, the core features for the mobile app will be the thematic organisation of artifact artifact views, the ability to search for a particular artifact's view, a glossary containing key terms and definitions, and the ability to view a slideshow of all the artifacts in random order-- disregarding their thematic organisation. Lastly, and most importantly, there will be a side navigation bar for easy intuitive access to each of the views.

We will implement the following features of the artifact view as soon as the core features are fully functional: an **audio guide** enunciating an artifact's title; a concise and contextually informative **caption**; a **multimedia section** containing videos and audio clips (e.g. short films related to pilgrimage sites and rituals, recordings of music, and chanting) related to the artifact**;** a zoomable **full screen image view,** that'll pop up when you tap on the image; a gallery of comparative image and a map locating the artifact's geographic origin.

This project's main dependency is the content the client will deliver. The content will comprise of text, high resolution images, video and audio. However, the team does have other concerns.

None of the team members have used either phonegap or ionic before. Therefore, we are anticipating a slight lag at the start of the project as we ascend the two platform's learning curves. In addition to this, we are also concerned about app speed tradeoffs: should we store 'heavy' multimedia content remotely and reduce download time while incurring latency costs each time a user wants to, for example, watch a video? Or, show we store them on the app, increase download times, and avoid incurring the above latency cost?

Team Organisation

Being a three man team has pushed individual team members to take on dual roles. Clive Mudanda will be our Team Lead. As Team Lead he will be maintaining the project's milestones and timeline, ensuring that the team has all the necessary resources, while also communicating the project deliverables to both the client and class instructors. As Business Associate, he will also be the client's primary contact, coordinating client meetings, managing the requirements put

forward by the client during those meetings as well as representing the client's needs and point of view to the rest of the team when the client is not present. Gary Sheng will be our UX Design lead. The client should contact him with specific questions regarding the look, feel and ease of use of the app. Lastly, Anthony Olawo will be tech and Quality Assurance lead. As technical lead, his role will be to break down the project into features that the rest of the team can code as well as identify what tools would be best suited to coding these features. Here he will liaise with the client on the impact that using certain tools would have on the app's overall performance, amongst other things.

Deliverables

Based on the goals and priorities outlined above, this is what we will deliver for each of the sprints:

Sprint 1

A skeleton version of the app with the following core features:

1. the title view,
2. 'enter the exhibition' view,
3. loading view,
4. explore view, and
5. three theme views.

Sprint 2

This sprint will extend the previous deliverable to include the following features

1. the side navigation bar,
2. slide show view,
3. artifact views and comparative image views.
4. an about view

Sprint 3

To finish off the app off we'll:

1. embed links to multimedia content in the artifact views,
2. implement QR code search as well as substring search and build a search results view to display results, before
3. extending the substring search to pull glossary terms onto the glossary view as well