

Introduction

Our client, the Western Mobile App Group, is a research and development group that offers mobile applications to the Western community. They have enlisted our assistance to further develop and improve upon the current iWestern micro app "Western Events".

Design Problem

The current "Western Events" app is simple and lacking. The app currently lists all events shown on the Western Events Calendar webpage in a scrollable fashion and includes a standard search bar. The app neglects, however, the events included in separate calendars in the iWestern app, namely Academic Dates, and Alumni Events. The Mobile App Group would like to bring all event driven feeds in the iWestern app together in one location. In addition, the group would like to provide users with the ability to synchronize events with a calendar of their choice, and add notifications for upcoming events.

Requirements Analysis

Our user requirements study relied on a three-pronged approach to data collection: a questionnaire, an interview and a card sorting activity. These various data collection methods permitted us to (1) obtain basic data about the current use of the "Western Events" app and determine how users are currently accessing event information, (2) gain an understanding of what features potential users of a Campus Events app actually need and use, and (3) acquire a sense of the users' mental model regarding the types of events that Western hosts.

Data gathered by different means were consequently analyzed by different means. Questionnaire results were analyzed using spreadsheet filtering and formula tools. Interview responses were categorized by "Features Liked", "Features Disliked", and "Suggestions", and an analysis of the card sorting activity relied on a card sort analysis spreadsheet and a co-occurrence matrix.

The findings of our user requirements study indicated that as nearly all potential users of a Campus Events app are connected to social media, sharing capabilities with social networks are a must-have feature. In addition, the app ought to provide clearer date headers, and the information provided ought to include time, location, registration information, costs, parking and maps. A Campus Events app should include the ability to search, filter and share information.

UI Prototyping

Our design introduces the following features:

- Relevant information accessible in a centralized location

- Sharing capability
- Traditional calendar layout similar to the Western Now layout
- Icon in top left hand corner allows you to switch between wheel and calendar format
- A wheel containing event categories with subcategories listed on the side
- Map feature
- Standard search bar with a drop-down menu of categories
- Icon in top left hand corner allows you to switch between wheel and calendar format
- Event information is clearly laid out in segmented spaces
- Option to 'add to calendar'

Relevant information accessible in a centralized location

- + users need only access one page to find event details, learn the time and location, link to find additional information, buy tickets or register, find directions and parking information
 - + spares users considerable time tracking down and locating the information they may need to attend an event
 - information provided must be correct as users will likely not look elsewhere to confirm correctness
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Sharing capability

- + users can share through social media, or email it to themselves or their contacts
 - + allows users of the app to promote listed events instead of relying heavily on the event organizers
 - + permits users to perform an expected task with little time commitment or effort
 - ~ depends on users being familiar with share icon
 - share icon means that event information now requires more space than was previously necessary
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Traditional calendar layout similar to the Western Now layout

- + familiar to students who use Western Now layout
 - + highly browsable
 - + visually attractive and generally intuitive layout
 - shows past dates
 - some features may not behave the same as they did in other apps
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Icon in top left hand corner allows you to switch between wheel and calendar format

- + provides users with flexibility in how they choose to browse or search for events
 - + icons take up little space and are identifiable
 - users may not be familiar with wheel icon
 - diverts from the usual models
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Standard search bar with a drop-down menu of categories

- + search icon takes up minimal space yet provides a necessary and expected service
 - + drop-down menu of categories facilitates searching if typing seems onerous or user does not know what terms to search
 - drop-down menu is subtly integrated into search service
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- not necessarily intuitive that the opportunity to search by event categories will be available by tapping the search icon
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Map feature

- + provides useful and often needed information to users
 - + mimics map feature in Western Now app
 - users will likely have to scroll to view map feature
 - takes up screen space
 - app will accordingly use more phone storage
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A wheel containing event categories with subcategories listed on the side

- + visually appealing and engaging
 - + permits immediate browsing, eliminating a step for users who generally do not search for events by date
 - + allows users to see categories and subcategories in a small space
 - + relatively intuitive
 - deviates from past format, or the format users may expect
 - requires an additional step for those listing/posting the event as they are obliged to categorize their event
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Clear distinguishable date headers

- + dates are not repeated with each event listing
 - + able to distinguish what events occur on what dates easily
 - + visually appealing and subliminally helpful
 - requires more screen space
-

Event information is clearly laid out in segmented spaces

- + type of information (time, location, cost, etc.) will be clearly identifiable no longer running together
 - + clear headers will allow users to pinpoint the information most relevant to them
 - + visually appealing
 - requires more screen space than previously needed
 - scrolling will almost certainly be necessary
-

Option to 'add to calendar'

- + provides an expected convenience to users
 - + uses standard share icon
 - takes up space and pushes other event information out of screen space thereby necessitating scrolling
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Formative Evaluation

Our formative evaluation relied on four participants; each participant completed a background survey, then engaged in four situational "think aloud" activities involving our prototype. Participants then completed a user reaction survey in light of the "think aloud" activity. This evaluation allowed us to observe what aspects of our design posed challenges to users. User "errors" were noted and the data was used in our redesign process.

Re-designed UI Prototype

In light of our formative evaluation, we made the following altered or added the following features to our previous prototype:

- A wheel containing event categories with subcategories listed on the side
- Clear distinguishable date headers
- Event information is clearly laid out in segmented spaces
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