Apple’s Weather App Redesigned: A Prototype

Jessica Reingold
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Project Overview

Product: Apple Weather App

- This weather app is the default weather that comes with devices that run iOS such as iPhones, iPads, and iPods.

Research and Design Methodology

- User interviews
- Created a persona
- User Testing Round 1
  - Paper prototypes
  - Both in-person and online
  - Two scenarios
- User Testing Round 2
  - Digital prototype - low fidelity
  - Both in-person and online
  - One scenario
- User Testing Round 3
  - Digital prototype - high fidelity
  - Both in-person and online
  - One scenario
Research - User Demographics and Personas

User Demographics

- Weather watchers who are passionate about weather for travel, outdoor activity, or planning
- Commuters
- Users who turn to other weather apps due to their enhanced features and more information

Personas

1. **Commuter**: checks local weather daily to assess travel conditions.
2. **Weather Watcher**: checks and compares weather in different areas frequently
3. **Storm Chaser**: looking for real-time alerts and notifications, enhanced tracking, and radar maps
4. **Non-Tech Savvy/Apathetic/On-The-Go**: satisfied with the limited information the current app provides
5. **Outdoor Enthusiast**: Active people who enjoy outdoor activities
6. **Outdoor Athlete**: Athletes and parents with children involved with outdoor sports
Research - User Interview Key Findings

Across all of the user interviews, significant features displayed in other weather apps appeared to be missing from the Weather app. The majority of users stated that they would like the following:

- More in-depth information about the current and future forecasts
  - “I would like to just read about what the weather will be today instead of having to scroll.”
    - Jenn H., On-The-Go

- Additional reports such as allergen, humidity, and precipitation
  - “I like to know when it’s going to be humid, because then I know I shouldn’t bother straightening my hair.”
    - Stefanie C., Commuter

- Notifications or alerts about impending severe weather or severe weather across various locations
  - “My family lives in Florida so I am in the habit of checking the weather for Tallahassee as well as here”
    - Bethany T., Weather Watcher
1. **Future Forecast**: Anna is hosting a family reunion in eight days. Even though she has a contingency plan, Anna wants to make sure it isn't going to rain during the day, because the event is outside.

2. **Hurricane Path**: Michael has friends who are vacationing in the Bahamas. He has heard that there is a hurricane that has made its way into the Caribbean from the Atlantic. He wants to see if his friends are caught in the projected path of the hurricane.
Paper Prototype Designs

Scenario 1: Future Forecast

Start: Hourly forecast screen

15 day forecast screen

Tap on a specific day to get a written description of the forecast

End
Paper Prototype Designs

Scenario 2: Hurricane Path

Home screen

Scrolled home screen; “below the fold”

Official Weather Statement screen

Current Location screen

Hurricane Tracker screen
Paper Prototype - Key Findings

1. Mental models play a huge role in users recognizing icons and understanding the context of the information presented in front of them.

2. All of the menu icons (Settings, Forecast, Menu) should have labels under them in case users do not have prior experience with the icons.

3. Severe Weather Alerts should be on the initial home screen.
## Paper Prototype - Key Findings

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a daily summary</td>
<td>The map and forecast menu icons are unrecognizable</td>
</tr>
<tr>
<td>Has a radar map</td>
<td>The severe weather alert is too far down on the screen</td>
</tr>
<tr>
<td>Has severe weather alerts</td>
<td>Can not go straight to the severe weather area (hurricane's path)</td>
</tr>
<tr>
<td>Has more information about severe weather</td>
<td></td>
</tr>
</tbody>
</table>
Things to Change for the Digital Prototype

1. Menu icons for the map and forecast - none of the users understood these during testing

2. Add labels to icons that take the user to another screen (e.g. map icon) - will aid users who do not understand the icons

3. Move the severe weather alert to the initial view of the home screen will catch users’ eyes when they first open the app
Testing - Low & High Fidelity Digital Prototypes

Scenario

- **Hurricane Path**: Michael has friends who are vacationing in the Bahamas. He has heard that there is a hurricane that has made its way into the Caribbean from the Atlantic. He wants to see if his friends are caught in the projected path of the hurricane.

Photo by PublicDomainPictures on Pixabay
Low Fidelity Digital Prototype Designs

- **Home screen**
- **Scrolled home screen; “below the fold”**
- **Official Weather Statement screen**
- **Current Location screen**
- **Hurricane Tracker screen**

*Indicates an interaction point
## Low Fidelity Digital Prototype - Key Findings

<table>
<thead>
<tr>
<th>Paper Prototype Issue</th>
<th>Digital Prototype Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not all of the menu icons were understood</td>
<td>Added labels underneath the menu options</td>
</tr>
<tr>
<td>Forecast icon unrecognizable</td>
<td>Changed the forecast a custom icon that combines partly sunny, storm, rain, and snow icons to indicate that this is where you see those types of weather</td>
</tr>
<tr>
<td>Map icon unrecognizable</td>
<td>Changed the map icon to a globe to indicate that this is where you can view weather across the world</td>
</tr>
<tr>
<td>Weather alerts were not seen immediately</td>
<td>Added a severe weather alert bar on top of the hourly/week/15 day forecast section</td>
</tr>
</tbody>
</table>
Improvements for the High-Fidelity Design

Feedback from Users

1. Add the ability to access added locations within the map screen will make it easier to compare radar maps for multiple locations.

2. Add the ability to search within the map screen for locations provides another way for users to find the area on the map they are looking for.
High Fidelity Digital Prototype Designs

Home screen
Scrolled Home screen; “below the fold”
Official Weather Statement screen
Current Location screen
Hurricane Tracker screen
## High Fidelity Digital Prototype - Key Findings

<table>
<thead>
<tr>
<th>Low Fidelity Issue</th>
<th>High Fidelity Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inability to access saved locations within the map screen (not pertinent to the scenario, unless the target location had been saved already)</td>
<td>Added a button to be able to jump to saved locations’ maps*</td>
</tr>
<tr>
<td>Inability to search within the map screen</td>
<td>Added a search bar on the map screen where users could search for a location by city, state, zip code, and country (did not make the search functional on the prototype)*</td>
</tr>
</tbody>
</table>

* As a result of adding the search and jump to saved locations, the precipitation/temperature bar on the map had to be eliminated. Toggling layers could potentially still be possible but within Settings.

### Feedback from users

- New User: Would have not understood the forecast icon if the label was not present
- Paper Prototype User: Very clean, clear, and efficient compared to the paper prototype
  - “Now I actually know what the menu icons mean!” - Bethany T., Weather Watcher
Annotated Final Design — Home Screen

- Added Severe Weather alerts and placed above forecast to catch user’s eye. Connects to the map with the hurricane’s path and the screen with the Official Weather Statement.
- Added a way to toggle between hourly, weekly, and 15-day forecasts.
- Added a menu as well as Forecast, Map, and Settings screens. Menu inspired by Dark Sky weather app.
- Added menu labels in case the icons do not fit users’ mental models.
- Added “Real Feel” or “Feels like” temperature.
- Blue text means it is active.
- Scroll down button/icon.

Washington, D.C.
79 °F
Real Feel: 84 °F

Hurricane Tracker
Severe Weather Alert: Hurricane George

<table>
<thead>
<tr>
<th>Hours</th>
<th>Week</th>
<th>15 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now</td>
<td>79 °F</td>
<td></td>
</tr>
<tr>
<td>2pm</td>
<td>79 °F</td>
<td></td>
</tr>
<tr>
<td>3pm</td>
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<td></td>
</tr>
<tr>
<td>4pm</td>
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</tr>
<tr>
<td>5pm</td>
<td>77 °F</td>
<td></td>
</tr>
<tr>
<td>6pm</td>
<td>76 °F</td>
<td></td>
</tr>
</tbody>
</table>
Annotated Final Design — Scrolled Home Screen

- Added environmental conditions. Inspired by The Weather Channel app.
- Scroll up button/icon
- Severe Weather alert appears again to remind users. Connects to the Official Weather Statement Screen
Final Design Annotated — Official Weather Statement

New screen

Description and more information about the storm. Inspired by National Weather Service

Connects to the map with the hurricane’s path.

Created a related videos section that would have videos having to do with the storm. Inspired by The Weather Channel app.
Annotated Final Design — Current Location Map

New screen

- Search bar allows users to search for a location if they do not want to zoom and pan on the map. Zooming out and panning on this screen would allow a user to navigate to the map with the hurricane’s path.

- Pinpoint shows a location on the radar map.

- A way to jump to the map of your saved locations (from the Add Location area on the Home screen).

- Would show radar animation for the past, present, and future.
Annotated Final Design — Hurricane Path Map

New screen

Dotted directional arrows show the projected path of the hurricane. Solid lines could potentially indicate that the path isn’t going to change.

When the hurricane is likely to hit different points of the projected path. Adding in numerical dates made the map too cluttered.

Name balloon connects to the Official Weather Statement screen to show more information.

Hurricane icon that fits most users’ mental model of a hurricane symbol.
Final Design Prototype Walkthrough Video

jessicareingold.com/rucd/prototype-walkthrough.mp4
[Length: 7:52]
Next Steps

- Have conversations with graphic designers as to if there is a way to make an icon that can better represent “Forecast,” or see if they suggest a change in the layout so that way an icon is not necessary.
- Collaborate with developers and create a timeline to slowly make feature and design updates to Apple’s Weather app.
- Continue to do user testing as developers make the new features functional.
- Meet with stakeholders before pushing major updates to the app.

Photo by Jeremy Bishop on Unsplash