

Mobile Tech Research Initiative

Pushing the Envelop for Mobile Media & Iterative Design

Research Question

How do you create a mobile app that delivers the cutting-edge capabilities of app technology as well as traditional concepts like usability, interactive design and aesthetics?

Description

In May 2011, Dick Hannah Dealerships, a leading Pacific Northwest automotive dealership in Vancouver Washington, sponsored a research project for students of The Creative Media and Digital Culture (CMDC) program at Washington State University Vancouver. A team of CMDC seniors were selected as student Fellows of the Mobile Tech Research Initiative (MTRI) to design and create a smartphone application to extend Dick Hannah's passion for customer care into the mobile realm.

The app, designed in Apple's iOS native framework, focuses on customer care for the Dick Hannah Dealerships. The app allows users to schedule service appointments, call for roadside assistance using Google Maps, and provides direct contact to the dealership.

Methodology

Eplane Consultants reports that 93% of U.S. adults own cell phones. Terry Kramer of Vodaphone estimates 305 million desktop computers in the developing world, compared to 2.2 billion mobile phones. Within the decade, mobile phones are expected to become the primary web browsing device. With this in mind, the MTRI team determined that a smartphone app would provide a convenient and innovative vehicle for Dick Hannah customers to reach the dealership.

To properly approach the app-building process, the team first had to research what makes a great app. They learned about concepts like pervasive usability, iterative and user-centered design, and rapid prototyping. They analyzed a wide variety of smartphone apps to learn best practices in app aesthetics, interactivity, sound and composition. They conducted primary and secondary research to understand the needs and preferences of target customers. This knowledge enabled the MTRI team to formulate their app design and development approach. The students gained advanced training in multimedia design, content development and app coding in HTML 5, CSS 3, JQuery, JQuery Mobile, XCode, Javascripting and PhoneGap.

Results

The underlining research and development undertaken by the team yielded innovations to mobile app production, including:

- Implementing the camera function, building local storage for the image, and anticipating the possibility of a default image if the user does not choose to use it
- Scripting dynamic storage functions to provide multiple car profiles
- Researching ideograms to best represent the myriad service options that are available
- Executing multiple functions that work in concert while testing to insure functionality between elements
- Unifying language and design principles across the project sections

Version 1.0 was created for iPhone, and in coming months will also be available on the Android. Version 2.0 will integrate with the client's database system.



Credits

Fellows:

Hunter Crawford
Natalya Gruntkovskiy
Michael Langlois
Kerri Lingo
Anaya Martella
Chad McClure
Brian McGovern
Artem Popov
Kathleen Schultheis
Margarete Strawn

Research Assistant:

Aaron May

Faculty Advisors:

Dene Grigar, Director
John Barber
Nick Hill
Will Luers
Nick Schiller



<http://www.dtc-wsuv.org/mtri/idmaa2011>

