IT-489-A Topic Submission
"PicReport" application

For my IT capstone project I plan to develop a prototype version of an application called "PicReport" or PR for short. The idea behind PR is to help first - responders and military personnel collect descriptive information for reports quickly from witnesses by using a series of images rather than through verbal description alone. The background on PR stems from my experience in the military. While in the U.S. Army I often spoke with people who spoke little to no English who could provide information that would help in the detainment of wanted criminals.

Even with the help of an interpreter it can be difficult to get information quickly and accurately due to various factors including the education level of the witness and differing dialects between the witness and the interpreter. Images are used to help witnesses identify suspects in various ways to include line-ups, news reports, and missing persons posters. The use of images in reporting information can be applicable to a wide range of scenarios in which a person is questioning someone with physical impairments, children, and those who may have issues explaining a specific descriptive detail.

Law enforcement and military personnel would benefit from the use of PR regardless of their native language because it would be based on images rather than words. The PR application would be intended for mobile devices and will record the user responses to compile a written report. In the advanced stages of development and likely outside the scope of this capstone project the PR application will tie descriptive text to each image and auto populate a report for the user.

For example, a police officer can supplement an incident report by printing off a report that is auto-generated from the PR application based on the input he received from an eyewitness at the scene of a crime. During the Fall 2015 semester the PR application is expected to have the initial function of allowing a user to describe the appearance of a vehicle through image selection, which can be useful in a situation where a person witnesses a hit and run accident. The PR application will be primarily intended to assist first responders, but can also be used by others who may wish to report crimes anonymously. This is a feature that may be added in latter phases of development. (Not likely to be included in the prototype).

The thesis for this capstone project is that an image based reporting tool can be effective in expediting the collection of information by law enforcement in situations where their subjects are unable to articulate themselves due to a variety of reasons. My expectations for this project are that it will be difficult to complete all the features I intend to implement within the semester. Therefore, I am limiting the functions of the prototype to only include vehicle description to allow ample time for development and research. I will measure the effectiveness of the application by conducting practical exercises using images to relay a description.

An example of an exercise to measure the effectiveness of the PR application will be to assign a person to play a witness and give them the task of searching for a vehicle outside. After the witness has found a vehicle I will only allow them to relay that information to me through the selection of images to simulate a language barrier. The images will begin as general details and move toward more specific details. The first images may be a collection of colors to signify the color of the

vehicle. Next there will be a collection of vehicle outlines to describe the vehicle type (i.e. truck, van, sedan, and coupe).

To determine customer satisfaction I will interview law enforcement officers to seek feedback on my application toward the end of the semester. For this project I will be working with Dr. Thomas Narock. I have taken Web development and mobile development with Dr. Narock in previous semesters here at Marymount. After taking the aforementioned classes I believe that Dr. Narock is well suited to guide my progression through my IT capstone project.

The timeline for the PR application will be as follows. From the beginning of the semester until October 22nd I will conduct research on sources of information from which to base my application through various online catalogs. I will also download all necessary development applications and tools and start to compile images to be used for the PR application. By October 22nd, 2015 I will submit a draft version of my application proposal for IT-489-A. I will create diagrams on paper that will simulate the function of the PR application for visual reference in development. These diagrams will be created by the 25th of September.

By October 9th, 2015 I expect to have a login screen, logo, and collection of colors for reference completed within the PR application. On the 30th of October, 2015, I expect to have vehicle outline pictures and emblem pictures compiled within the application. On November 20th, 2015 I expect to have the majority of the automotive description application complete to include extra details such as license plate, stickers, and damage marks. Also by the 20th I will have surveyed potential users of the PR application for customer feedback. By the 4th of December 2015 I

plan to have my final proposal ready for submission. The PR application should be ready for a user to go from the initial color of a vehicle all the way to the full vehicle description compiled on a summary screen.