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CMSI 370

Assignment 1105

Evaluate the Evaluator:

The *Mobile OS User Experience Shootout* from Pfeiffer Consulting

In this paper I will be looking at the usability study conducted by Pfieffer Consulting titled: *How iOS7 Stacks Up: Smartphone OS User Experience Shootout*. This study analyzed in depth the new iOS7 released for the iPhones. It looks at several usability metrics and compares them to the four leading competitors’ operating systems on the market. These include Android (Samsung), Windows 8, Blackberry 10, and the previous iOS, IOS6. The usability metrics that are tested for each operating system are cognitive load, efficiency, customization, and user experience friction.

When studying the usability of a device, there are many usability metrics that can be used to test this. A usability metric is anything that tests how “usable” a system is. The goal is to quantitatively record how well a system performs its intended task. According to the International Standards Organization (ISO) standard 9241, the best usability metrics are effectiveness, efficiency, and satisfaction. According to Nielsen, there are five usability metrics, which are the most important. These are learnability, efficiency, memorability, errors, and satisfaction. Each of the metrics used in the Pfeiffer report can be directly connected to one of these five metrics.

The first metric, cognitive load is “the sum of elements you need to get familiar with in order to use a device spontaneously and intuitively” (Pfeiffer). For this metric they counted the number of apps, widgets, icons, or any user interface element that is pre-installed into the system. These elements are things that the user must learn how to use. The assumption made by Pfeiffer is that the more of these elements that there are, the worse it is for the user because it means that they must learn more before they can use the device properly. This ties directly into the usability metric of learnability. It may be unfair, however, to give an OS a bad rating based solely on cognitive load. One OS may have more elements to learn than another, but if they are designed in such a way that they are more user-friendly then they might have a higher level of learnability. This is the reason why they must test multiple usability metrics.

The second metric, efficiency, was measured by analyzing “access to key settings, integration with notifications, multitasking, and camera access, among others” (Pfeiffer). The unit of measurement for this was a scale from 1 to 10 of how efficient they thought each OS was.

The next metric, customization, measures how customizable each device is. Pfeiffer says that “consumer-level customization is one for the key user experience aspects of connected digital devices”, giving it a large amount of importance in their final reports. Customization is directly related to user satisfaction. The more that the user can customize his or her device to match their needs/preferences, the more satisfied they will be with that product.

The last metric, User Experience Friction (UXF), is described by Pfeiffer as “the bad stuff, the aspects of a device that can annoy you in a niggling way, or, in extreme cases, drive you crazy. Basically, UXF occurs whenever a device does not do what you expect it to do – or lacks a key feature that should be available.” User Experience Friction is directly related to the usability metric of errors and even efficiency.

At the end of the report they combined each metric to create each OS’s final overall score. The iOS7 received a score of 73.25, the iOS6 70, Android 57.25, Windows 8 47.25, and the Blackberry 10 received 56.37. I think that the four usability metrics that they used to review these OS’s were very good, and gave a very good idea of how each performs relative to one another. I do feel that they should have tested other metrics such as learnability. Cognitive Load may have a lot of impact on the learnability of a device, however they mainly scored this metric based on the amount of items a use would need to learn, and not on how easy or difficult these items were to learn. This could have drastically changed the ratings in this category.