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Real Life Project

Part 1:

The smartphones of today provide us with great versatility and can replace many standalone devices that provide the same features. The question arises however, can these “jack of all trades” devices replace each standalone device that can perform the task just as well, if not better. Examples of device that a smartphone’s apps can mimic include a GPS, calculator, portable storage, media player, and word processor. Is the individual cost of portability and monetary value worth the possible increase in effectiveness each of these devices have over a smartphone?

For those who commute to and from their job site, a GPS is a must. It provides not only directions to their destination, but also traffic reports, speed limits, weather reports, and points of interest (food, gas stations, monuments, etc.). These devices also now include features to assist in driving as well with the ability to become dash cameras or add cameras so you can see what’s behind you when you back up. Your average smartphone can provide most of these features with a simple free app such as Maps by Google. It won’t have the ability to make your smartphone act as a dash camera or provide a backup camera, or even give the speed limit of the road you’re on. It will however, provide navigation, traffic reports, and points of interest all for the price of free. You cannot deny though the initial price of a smartphone which ranges from \$400 and up as well as data fees whereas, a Garmin GPS could range anywhere from \$100 to \$300. The price difference is neglected by the added utilities of a smartphone.

One such utility included with each smartphone on the market is a calculator. Calculators come in various shapes and size with varying functions depending on whether it's a graphing, programming, scientific, or other type. A smartphone includes most of these calculator types with their functions in the default utility app that is installed on the phone. Furthermore, if the default app doesn't include the desired type of calculator various paid and free apps can be downloaded to provide what is needed. One example of an app that can be a calculator that can perform almost any operations and display step-by-step solutions is Wolfram Alpha which can be purchased for \$3. While a calculator can cost anywhere from \$15 to \$50, depending on its functions and features, a smartphone can do it for free or a minimal price on the phone's app store. As an example, your local financial office could have various calculators for tasks such as loan calculation, interest payments, mortgages, currency conversions, etc. Each of these can be replaced by different apps for commerce, loan, scientific calculators and so on. Each can provide the same level of accessibility, can offer faster calculations (depending on the phone and physical calculator), and the same level of accuracy if not more.

Another built in utility of a smartphone is that it can double as a storage device. Most smartphones today come with anywhere from 8GB to 128GB of built-in storage and many support extra storage to be added via an SD Card. A smartphone can act as a replacement to a USB storage device allowing for mobile storage of documents, media, or programs needed for the job. The downside of using a smartphone as mobile storage when compared to a USB storage device is storage size. A smartphone ultimately is far more limited to its total storage size and as storage sizes get larger, so does the cost. USB storage devices can range from 8GB up to 5TB or more, whereas a smartphone with an SD card for extra storage can reach up to 512GB, a mere 10th of a USB storage device's max capacity. The cost of a 256GB SD card will range from \$75 to \$100 and the USB storage device for an equivalent cost can have up to 5TB of data. The portability of a smartphone with its various other uses make a strong case for its increase in cost as a form of portable storage, however the lower price and increased storage

size of a USB storage device far outweigh that of a smartphone. Smartphones may fail in these categories, but the one it fails to compare in most may be the most vital, security. Smartphones do not have easily encrypted storage, are difficult to backup, and are portable. USB and internal storage for a desktop PC have numerous ways they can have their contents encrypted with software even being provided by the OS itself (BitLocker, FileVault, etc.). Smartphone storage does not share these features with lack of encryption software from Android or iOS. Following the issue of encryption, smartphone storage cannot be backed up without needing another smartphone or form of external storage, such as a USB storage device. This inheritably faults the concept. Another fault is found at the very core of a smartphone, its portability. If a thief were wanting to steal documents from a workplace they would most likely need to steal the entire PC or a bulky external USB drive. A smartphone on the other hand, can be stolen from an employee's pocket or even accidentally left in public. These vulnerabilities provide deep concern when using a smartphone as a form of portable storage.

Whether its training videos, technical documents, or video conferencing, a smartphone can perform them all. Doubling as a media player a smartphone can be used to watch training videos and review any job related documents anywhere. Instead of needing to be at a computer at work, employees can still perform their duties without needing to be at their desk. Furthermore, with apps such as Skype conference calls can be held and join from anywhere. Instead of needing conferencing equipment such as the BCC950 camera from Logitech, which costs around \$200 and requires members be in the same space, employees can join the conference wherever they may be. There are scenarios that would require this level of equipment such as when multiple members need to be in the same room for a conference, in which a smartphone utilizing Skype would be inefficient. As a media player, a smartphone can provide many uses, however its size restricts its use to a single individual for tasks such as conferencing and many would prefer larger screens for videos. Its portability makes it a great

replacement when away from the workplace, but in the workplace can prove to be inefficient when compared to other options.

What is probably the most useful feature in the workplace on a smartphone is its ability to perform the same duties as a word processor. The most common word processors, Microsoft Word and Adobe PDF, requires you be on a desktop PC or laptop PC. These pieces of software each cost hundreds of dollars or a monthly subscription for a smaller fee. Their app equivalent on a smartphone however, are free. They are more restricted versions of the more complete PC software, but other apps such as Google Docs, make up for their lack in function. As a result, a smartphone of similar cost to its desktop or laptop equivalent can perform similar functions without the extra cost of software and has increased portability. The software and app may provide similar feature sets, yet they do not share the same level of accessibility. Composing technical documents using a 24-inch monitor and a keyboard and mouse is far easier to accomplish than when using a 5-inch touchscreen. Being able to access these documents when away from the desk carries its merit, but the documents need to be composed before they can be read.

Returning to the original comparison if a smartphone with apps can replace their respective standalone counterparts effectively and in a cost-efficient matter. When compared a smartphone proves to be a more than capable replacement for a GPS and calculator, but equal as a document processor and media player. Smartphones showed to be less expensive and more utilitarian despite having a higher initial price due to lower long-term cost. It does fail to replace USB storage as a form of portable storage by being far more expensive, unable to provide the same amounts of storage, and being insecure however. Smartphones cannot replace standalone devices in the workplace, but instead prove to be a worthy supplement by unrestricting “work” from the workplace and allowing for workers to remain productive when away.

Part 2:

Case 1:

Website: <https://my.msjc.edu/>

Tab 1: Logged in

Tab 2: No need to log in second time, credentials were saved via cookies in the browser preventing the need to re-login to the website

Tab 3: Am still logged in after logging out in first tab and closing it, will need to log in again if I attempt to go somewhere on the site because the current second tab is being accessed from browser cache.

Case 2:

Website: <https://www.amazon.com>

Tab 1: Logged in

Tab 2: No need to log in second time, credentials were saved via cookies in the browser preventing the need to re-login to the website

Tab 3: Am still logged in after logging out in first tab and closing it, will need to log in again if I attempt to go somewhere on the site because the current second tab is being accessed from browser cache.

Case 3:

Website: <https://www.reddit.com/>

Tab 1: Logged in

Tab 2: No need to log in second time, credentials were saved via cookies in the browser preventing the need to re-login to the website

Tab 3: Am still logged in after logging out in first tab and closing it, will need to log in again if I attempt to go somewhere on the site that requires a logged in user's input

Case 4:

Website: <https://mail.google.com/>

Tab 1: Logged in

Tab 2: No need to log in second time, credentials were saved via cookies in the browser preventing the need to re-login to the website

Tab 3: Am still logged in after logging out in first tab and closing it, will need to log in again if I attempt to go somewhere on the site because the current second tab is being accessed from browser cache.

Case 5:

Website: Banking Site

Tab 1: Logged in

Tab 2: Need to log in again due to cookies not being saved and log in credentials being valid for a single session.

Tab 3: Am still logged in after logging out in first tab and closing it, will need to log in again if I attempt to go somewhere on the site because the current second tab is being accessed from browser cache.