

Apple's Transition to No Apps

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1 Executive Summary

1.1 Issue

In 2008, Apple introduced the idea of the App Store, a place on your phone that distributes software to you by a simple touch to the screen. The app store is a huge success as it allows you to stay connected with the newest content and services. However, there are two main problems with the app store: "delivery and discovery" (The Future Without Apps).

1.2 Recommendation

Apple needs to move away from the app centric approach to delivering information. They must advance their technology and remove the barrier that is slowing down information sharing. The solution is platform-agnostic application streaming. This will allow any user, regardless of the operating system or the brand of cellphone, to receive content in a quick and easy manner with good performance.

1.3 Justification

If Apple is able to create this solution then installing applications through the app store will become obsolete and every application, regardless of what platform is being used, will have the “native” feel. Users will be satisfied because they will not have to waste precious home screen space nor waste their time installing the app. Also content providers will not have to “develop several separate iterations for the dominant app platforms and deal with the ongoing hassle of app store approvals and update processes” (Pasqua, Elkin 141, 142).

2 Problem Definition

2.1 Problem Statement

Apple needs to utilize a platform free application streaming solution that overcomes the delivery, discovery, and storage problem.

Delivery and Storage:

The average human has a shorter attention span, less patience, and the need for instant gratification than the average human before the digital revolution. This is because “technology makes everything easy, which goes a long way to making us indolent” (Rivers 26). Apple must adapt to this by delivering content and services to their customers as quickly and easy as possible. If a person today wants to use an app, they need to load the app store, perform a search to find the app, click install, accept permissions by typing in the password, the download begins, wait..., then ready to use. This is a long and tedious process and therefore people tend to think twice about downloading apps that are not essential.

A specific example of this would be an email from Taco Bell saying, “Download our app and get 30 percent off of your purchase”. The user would have to go into the app store and go through the process just to receive the

coupon. The user would eventually use the coupon and realize that they do not need the app anymore and because it is taking up unnecessary space in their phone so they would then delete it. "Our home screens are the new San Francisco, space is at a premium" (The Future is Without Apps). Many people do not have the time or patience to go through the download process just to end up needing to delete it because of storage issues. The installation process has become a barrier for the quick and easy delivery that people want.

Discoverability:

Some applications are closed platform so if I wanted to view content from these applications I would have to download and register for the app first. This content cannot be reached from the mobile browser. An example of an application that does this is Snapchat. In order to send or receive pictures and videos, one must first download the application on their cellphone. This creates an unwanted Internet with information that is locked up in a platform.

Currently, Apple has begun the quest for better delivery and more discoverability of applications. They are using On-Demand-Resources, which essentially only downloads the content that is needed. For example, if you download a game, only the beginning levels as well as other essentials will be stored in your phone. As you move up in the game more storage will be used. This is a step in the right direction as it does help on the delivery of the application. However, there is a better solution for this problem that fixes the delivery and discoverability problem.

2.2 Alternatives Available

One alternative to this problem is artificial intelligence. Apple can invest money into a good enough AI that can be the sole app on the user's phone. The bot will keep track of the interactions between people and their devices in order "to learn about its user to the point that it actually knows what its owner wants, even without the owner having to ask" (Salz, Moranz 296).

This solution can definitely take off, however it does not solve the problem of storage usage on a phone or discoverability.

Another alternative solution to app streaming is dropping mobile applications entirely and utilizing web apps only. The first iPhone was closed platform and did not support third-party apps. Steve Job's solution to this was web apps because you do not need to install them and they are web friendly (easily indexed and searchable in search engines).

2.3 Summary of Preferred Alternative

The solution that Apple needs to offer will bridge the gap between the native app and web app. Currently, web apps lack in performance and do not have the native app look or feel. However, there are two main advantages that web apps have over native. The first advantage is there is rapid development for a wide audience. They "have the distinct advantage of creating an app once for delivery on multiple platforms" (Rowles 119). Developers are able code on a single codebase rather than having to maintain multiple codebases. This also allows the users to avoid going through the app store, meaning there will be no hassles with the updates and the latest releases. The second advantage is there is instant engagement because accessing the content is only one click away. There is no more getting redirected to the app store, clicking install, and entering your password. This will also allow users to access the application regardless of their personal device.

3 Recommended Action

3.1 Organizational Impact

Apple can transition to web apps only, but continue to research and develop a platform-agnostic application streaming solution. Apple has two options for making this transition: they can do the work internally or they can

try to outsource the work to another company. If Apple tries to implement the project on their own then they need to allow their innovations research and development team to fully pursue this future.

Although Google still has an App Store and allows their users to interact with these apps, they have begun to make this transition to an app free experience by relying on app indexing and linking. However, it is up to the developer of the application to put in the extra effort to allow these features. If they do then the users can see this previously mobile-only content in their Google search result. Google also recently rolled out app streaming. If the user taps the link to the mobile content, Google will stream the requested content on demand. Google bought this new technology from the company Agawi. These two features have removed the barrier to share information. Like Google, Apple can also try to acquire companies like Agawi that are ahead of the game in new innovative technologies.

3.2 Risks

The most important risk to take into account when considering app streaming through the Internet is how it will affect those with tight data allowances. Some users have the need to run apps with low-data connections or when not connected to the Internet. In order to avoid losing these customers, Apple can try to blend the experience of installing and streaming by having a feature that allows application streaming to install locally. If Apple implements this feature, they will be able to differentiate themselves from what Google is doing and also attract more users.

3.3 Technology and Infrastructure

This is a huge paradigm shift for apple. It will involve restructuring the whole OS in order to remove the deep sea of icons on the home screen. Apple will need to create an update for the OS with a whole system change to the

way people receive and interact with content. Content providers will need to adapt to this change by altering the design and the product strategy.

4 Project Overview

4.1 Goals and Objectives

The first step in this project is to build the minimum viable product which has two core functionalities: platform-agnostic and on demand streaming. From there, Apple can worry about additional features that will differentiate their product from Google's. More specific features of this product are to ensure that the platform-agnostic solution has an app-like feeling. Many users stray away from using web apps due to its lack of simple user interface. Another important objective is to make sure that the solution is safe. Security is important to ensure that there is no one snooping or tampering confidential information.

4.2 Success Metrics

It is important to get feedback from users before deploying this change in Apple's software. The user experience team should be continuously testing every aspect of this solution with real Apple users to ensure high levels of customer satisfaction. The user feedback will help ensure that the solution is as simple and easy to use as possible.

4.3 Major Project Milestones

There are five major stages that will involve delivering milestones for this project.

First Stage: Concept Phase (Pre Project Planning)

The business opportunity will be defined, a viable will be identified, and the feasibility will be assessed.

Second stage: Project Initiation

The scope of the system is modeled with the help of the stakeholders, the team is constructed, and estimates are created.

Third Stage: Construct Iterations

The working system is delivered which meets the changing needs of the stakeholders.

Fourth Stage: Transition

All final testing will happen and the solution will be deployed into production.

Fifth Stage: Production

Operate the system and identify the defects and enhancements.

5 Cost Benefit Analysis

$$\begin{aligned} \text{NPV} &= \frac{7,276,000}{(1+.10)^1} + \frac{-415,000}{(1+.10)^2} + \frac{3,513,000}{(1+.10)^3} - 100,000 \\ \text{NPV} &= \$ 8,810,939.1435 \end{aligned}$$

5.1 Impacts on Revenues

The first thought of eliminating the app store is that it will impact revenues. However, if Apple does not act fast, there is great potential for Google to overcome them. Apple users will be able to use Chrome's feature of streaming apps which will eventually take over and the Apple app store will see an exponential decrease in revenues. Therefore, it is extremely important for Apple to make this investment in order to remain competitive.

5.2 Impacts on Costs

Apple will need to make a big investment in this project. They can acquire a company that already has the technology which will be a significant expense. Otherwise they can do the research and development in house which will also be a significant expense, but they have the resources. The result will probably be less expensive, easier to maintain and enhance than outsourcing the work and Apple will have more control over the product.

5.3 Comparisons With Alternatives

Artificial Intelligence: Building a bot with artificial intelligence is something that companies are competing to do right now. The research and development is enormous and it will have relatively the same cost as creating a platform free solution that streams apps. However, as mentioned previously, it does not solve the discoverability and storage problem. This is an area that Apple should also concentrate on developing for their tech followers.

Web Apps: This is easier to implement and can be a stepping stone to creating a platform free solution. Web Apps are much less expensive to implement since research and innovation are not as demanding. Google is already supporting web apps that stream content. However, it is not as innovative as Apple creating their own platform-agnostic app streaming solution.

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