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| **ASIA PACIFIC COLLEGE**  School of Computer Science and Information  Technology |
| A RESEARCH ON MOBILE APPLICATION DESIGN |
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**INTRODUCTION**

In light of recent events, wherein smart phones are widely being used all over the world, it is purely evident that the *Mobile Applications* (or Mobile Apps) have begun to proliferate alongside the Mobile Market. These apps have slowly invaded the Information Technology world, and in line with this, the proponents of this study will be conducting a research about the Design of Mobile Applications. In this study, the team will also evaluate the *Social Constructionism* of the said Mobile apps. Its relevance to significant issues at status quo, the influences that drive an individual to design or develop an application, and the underlying design forces that may trigger the Mobile apps inception and implementation. In this study, the proponents will be identifying the key-players and their involvement in the development and the designing of Mobile apps.

To further the scale of this research, the team identified a specific premise. This premise discusses that in the design and development of mobile applications, several aspects of discourse are always to be considered. To fully identify the influences and to define the involvement of the actors in the construction of Mobile Applications, the team must further break down the elements of Mobile App Design to research relevant information and to gather evidences. These factors that the team arrived with are the following: **(1)** *Underlying Design Triggers* which includes relevant information as to how the design of Mobile apps are motivated in a social perspective*,* **(2)** *Design Process Actors*, which provides a detailed description of the actors that the study identifies as a part of the design process, **(3)** *Actors and their Impact to the Design Process,* which includes the involvement of the actors in the mobile apps industry, relevant issues to mobile app design (i.e. culture, power dynamics, influences) and the design process implications that the proponents found in the study they have conducted, and **(4)** *Local Mobile Application Development,* which discusses the result of the research that the proponents have gathered in accordance to Mobile App development in the Philippines. These mentioned sections are discussed in the Research Findings Section of this study.

Through this study, the team aims to answer the following questions:

1. Is design, market driven or individual driven?
2. Who are the actors in the design of Mobile apps?
3. How do these actors shape the design process?
4. What is the nature of their influences?
5. What are the implications in the design process?

**BACKGROUND OF THE STUDY**

The team’s primary data gathering method is research. For the verification of various items that were obtained through research, the team used another data gathering method which is survey distribution. The group gathered the data for their findings through online and paper surveys. The results obtained were then analyzed and used to attest the research done by the team that was gathered from the web. The survey is divided into two, the *business set* that has sub-categories (those who use mobile apps for work and those who do not). This category includes those people who are involved in marketing, advertising, accounting or any other business-related industry. The next category is the *designers set,* which include people who are affiliated to, or are in the field of multimedia-arts, including both professionals and students.

The team allotted one day for the online survey and another day for the paper survey which was distributed to an office (Union Bank of the Philippines) wherein the team used the connections that they have to gather survey respondents in the allotted period of time. The online survey for designers reached 40 respondents, the business survey that does not use mobile apps has 8 respondents, the business survey that do use mobile apps has 46 respondents. For the paper survey, the business survey that do use mobile apps reached a total of 26 respondents and those who don’t has 1, as for the designer survey there were 13 respondents from the office who are designers. All in all, there were a total of 134 respondents.

Each team member is tasked to do their own research that answers the five questions and then a background of the author is researched for credibility. When the author proves to be credible for his past works, the article is then analyzed by the member who obtained the said research and matches it with the survey questions. This process is done with the other members of the group so that the team could share their findings with other members for any comments, and suggestions. Important notes that were in the articles were focused on by the group; examples include factors that influenced the designing and developing of a mobile application.

The proponents have included a Mobile App Analysis for this study. Therefore after evidences have been gathered for each aspect of Mobile App Design, the gathered evidences will be used to assess certain mobile applications developed by Filipinos. Part of the selection of these mobile apps, aside from their Filipino developers/designers-descent, is its social acceptance in the industry.

After the analysis, evaluation of the results are due. A separate section for the interpretation and analysis of the results is included in the study. This section should include a summary of the claims that may be derived from the said research. and will be represented by the data derived in the research findings section. This will be a culmination of all the results’ outcomes and their possible implications to the study.

**SCOPE AND LIMITATIONS**

An objective of the study is to delve into the design of mobile applications with regard to the 5 questions to be answered for this research. From these questions, the social construction of Mobile app design will be observed based on the respondents’ answers. Key players or actors in the mobile app industry and the influences with regard to development of mobile applications will also be included in the study. However, the study limits the discussion of actors with regard to the target respondent sets that the team assigned for the survey distribution.

For the Mobile Application Analysis, the team has limited the study to the applications researched and discussed in the findings section – to have a manageable pool of comparison within the study.

The team will not include any assumptions and will only use survey results and research findings to complete the study.

**RESEARCH FINDINGS**

* **Underlying Design Triggers**

To further explain various design triggers / determinants that are involved in the *Mobile App Design Process*, we must first define a few technical terms that are to be encountered in the Design Process. These definitions will be iterated in the succeeding sections, through research findings.

Design

Function

Trend

* **Design Process Actors**

For the Design Process Actors involved in the *Mobile App Design Process,* the team focused on the following possible actors that they used as the target respondents for the Survey Distribution.

Business Set

Designers Set

* **The Actors and Their Impact to the Design Process**
* **Roles of the Actors**
* **Nature of their Influences**
* **Design Process Implications**
* **Local Mobile Application Development**

After obtaining the evidences for the research, the proponents have arrived with an analysis for Mobile apps created by Filipinos in the industry. These mobile apps include:

* Streetfood Tycoon
* TARA: Theft Apprehension and Asset Recovery
* Pugo
* Bulalord Xtreme

The mentioned applications were assessed with the research criteria (design, function and trend) for the benefit of having a thorough analysis of some of the Filipino mobile apps of the present.

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Streetfood Tycoon | TARA | Pugo and Bulalord |
| DESIGN | * Filipino culture is present in the whole game * The UI is responsive, and may be considered as average, based on ratings | * Design is simple and is geared towards functionality | * Both incorporates designs similar to the app Flappy-bird * There are some minor revisions in each app’s U |
| FUNCTION | * In some ways, their games may be considered as *‘a rip off’* of food serving games from Y8.com | * T A R A : Theft Apprehension and Asset Recovery * If you activate the kill switch, the phone will scream *“Magnanakaw!”* non-stop. * Creating an account is as simple as registering an email account | * Pugo follows the same mechanic as Flappy Bird that lets you control a pink quail by tapping the screen to avoid obstacles. Bulalord Xtreme follows the same scheme as well |
| TREND | * Kuyimobile, the app’s developer and uploader – are embracing the industry of mobile games, by adding a theme of Filipino Pride in their app * The basis of the app’s functions are derived from Y8.com | * Unfortunately, this app is only available for MyPhone users * The culture of seeking solutions to everyday *problems* are being incorporated in this app | * The “Bulalord Extreme” and “pugo” apps are clones from its original game “Flappy Bird” and based from news that became a trend in the Filipino Social Media/Community. |

**Table 1.0 Mobile Application Analysis**

**INTERPRETATION OF RESULTS**

In line with the findings that have been obtained by the proponents, together with the Mobile App Analysis results, the following interpretations and claims have been derived:

The succeeding illustration is a visual representation of the obtained results for the Mobile App Analysis, the proponents were able to arrive with some similarities such as (1) the injection of *Filipino Characteristics,* to the concept of existing mobile apps, (2) the value of the developers / designers imparting their *beliefs, opinions and desires,* to the app that they design / develop, (3) the idea of creating their apps for their users, and (4) the apps possessing a sense of serving their *purpose*.

**Similarities:**

* + These apps’ functions and designs are influenced by existing mobile apps on the app store, but these possess **Filipino** characteristics **(eg. traits, media, solutions, etc.)**
  + Somehow these apps are an extension of the developers’ / designer’s **values, beliefs, opinions, and desires**
  + Key-players shaped the design of these apps based on **their preferences**, but for their **users**

**Diagram 1.1 Venn Diagram for Mobile App Analysis**

From the result of the accomplished analysis, the proponents were able to derive the following claims that may further support the constructive of the methods and the influences governing the designers’ and the developers’ way of creating mobile apps.

The claims have been separated in accordance to the category from which the ideas have been derived (Design, Function and Trend):

* **Design**
  + Personalizing UI and UX matters for this *generation* and the ***trends in designs*** are mostly derived from user feedback
  + A designer’s UI / UX are most of the time an extension of **his / her beliefs, interests**
* **Function**
  + Developers value the ***users***and ***their feedback*** of their application in deciding features to be included
  + In considering the tools, and the platform to be used, developers also take the **target audience** into consideration
  + The **desires** and **convictions** of a developer may influence his/her application
* **Trend**
  + Businesses are now considering the field of mobile application development for their **marketing strategies**
  + These trends influence companies to be involved in the industry of Mobile Apps by **having an app for themselves**
  + More and more **companies** & **government agencies** are hosting competitions in *Mobile App development & design.* 
    - This trend of conducting contests from *idea/concept building*, to long-term or short-term **development** has slowly invaded the IT and marketing strategies of most corporate entities here in the Philippines

**GLOSSARY**

**CAMSS** – Cloud, Analytics, Mobility, Social Business and Security *(Retrieved from http://www.ibm.com/ibm/clientcenter/montpellier/camss.shtml)*

**Digital Strategies –** blueprint for managing customer-facing information technology (IT) initiatives *(Retrieved from http://searchcio.techtarget.com/definition/digital-strategy)*

**International Data Corporation –** the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. *(Retrieved from http://www.idc.com/about/about.jsp)*

**Imagine Cup –** Microsoft’s premier student technology competition *(Retrieved from https://www.imaginecup.com/)*

**Mobile Application** – a software application developed specifically for use on small, wireless computing devices, such as smartphones and tablets, rather than desktop or laptop computers. *(Retrieved from http://whatis.techtarget.com/definition/mobile-app)*

**Mobile Application Development** - set of processes and procedures involved in writing software for small, wireless computing devices such as smartphones or tablets. *(Retrieved from http://searchsoa.techtarget.com/definition/Mobile-application-development)*

**Social Constructionism -** in sociology, a school of thought pertaining to the ways social phenomena are created, institutionalized, and made into tradition by humans. *(Retrieved from http://dictionary.reference.com/browse/social+constructionism)*

**UI/User Interface –** everything designed into an information device with which a human being may interact. *(Retrieved from http://searchsoa.techtarget.com/definition/user-interface)*

**UX/ User Experience -** The overall experience of a person using a product such as a website or computer application, especially in terms of how easy or pleasing it is to use. *(Retrieved from http://www.oxforddictionaries.com/us/definition/american\_english/user-experience)*

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**APPENDIX**

**Mobile Application Sample Screenshots:**

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**Image 1.1 Streetfood Tycoon at the Android App Store**

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**Image 1.2 Streetfood Tycoon Interface**

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**Image 1.3 TARA Mobile App Poster**

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| *Screen Clipping*  **Image 1.4 Pugo Home Screen** | *Screen Clipping*  **Image 1.6 Bulalord Xtreme Screenshot** |
| *Screen Clipping*  **Image 1.5 Pugo In-game Screenshot** |