CHAPTER 1

INTRODUCTION

1.1 Background

The current situation with higher education in Papua New Guinea (PNG) is that it is profoundly expensive. If a student doesn't qualify for one of the financial support programs when applying out of high school, many families are often forced to take out a loan from the bank to pay for their children to attend a University or tertiary institute or technical college. Some young men and women are left having to postpone their education to get a job in order to save up the money needed to pay the tuition fees, and others forego further education altogether and find whatever work they can to support themselves. With this being the case, government or corporate sponsored scholarships make a big difference to a person's educational prospects.

Various scholarships are offered to Papua New Guineans from several countries including Australia, New Zealand, Japan, China, the Philippines, and of course Indonesia, and others that this writer is not aware of. Information concerning these scholarship programs are not easily available to those interested in applying for the program. The majority of individuals learn about the scholarship programs through advertisements in the newspaper or on the radio, and word of mouth. Sometimes the respective agencies will also host a roadshow or seminar where individuals can attend to find out more. But they have to attend the seminar, or be fortunate enough to read the right newspaper, or talk to the right person to learn about the scholarship. This could prove to be rather difficult for individuals who

live in rural areas or other provinces. While they still might learn that there is such a program, most likely through the newspapers, detailed information about actual life experience won't be available to help them. This writer was informed of the Indonesian Scholarship program through a newspaper advertisement that was seen by a parent.

The Kemitraan Negara Berkembang (KNB) Scholarship program is one of the programs on offer to PNG, sponsored by the Indonesian government. The program caters for Master Degree programs at one of 15 prominent Universities in Indonesia; Universitas Padjajaran, Institut Teknologi Bandung, Universitas Pendidikan Indonesia, Universitas Negeri Malang, Institut Teknologi Sepuluh November, to name a few. The KNB program was launched in 2007 and have since accepted more than 600 applicants from over 64 countries.

The KNB scholarship program is open every year. Some of the necessary requirements for this program are being no older than 35 years of age, and have already obtained a bachelor degree. The application process is fairly straight forward once the necessary documents have been submitted along with an application form, specifying the university and study program they wish to enrol in.

In our case, not that much information was given to us until we began to attend the month long informal training classes where we were taught the basics of Bahasa Indonesia, along with other useful information about Indonesia and the cities we'd be going to. However, this writer found out that, while what was learned before leaving PNG was necessary information, what was lacking was general information about everyday life. Which is somewhat ironic, no? Interested individuals were given information about the universities and the programs that are

offered. Later, accepted applicants are given information such as language, living cost, and cultural differences. But little is said about the things that are a part of everyday life. As yet, this writer isn't aware of any such website or database that holds accounts, or stories, of experiences had by students' current and former who spent time in Indonesia. An information system with the collected knowledge, and ability to collect more, that could give a more personal insight into studying in Indonesia. Not the hum and drum of being a student, but being a Papua New Guinean in Indonesia.

Technology in today's world plays such a significant role in day to day activities, both in the professional and personal sense. With regard to business, modern technology assists organisations and companies to carry out their everyday business effectively and efficiently. In a more personal sense, technology has made it incredibly easy and inexpensive to manage and access personal information, and whatever other information one may need, in so many ways. Along with social media and the applications that keep pouring out every month, technology is slowly blurring the line between business and personal use. Information technology (IT) that is primarily used include computer based information systems (CBIS), web technology, and database management systems (DBMS). These advances in technology have helped to improve the management of information in great and small amounts, and in several ways their exposure and access. Individuals and organisations need information to make critical decisions to achieve goals or see a task complete, which is why information management is essential.

Computer based information systems use computer resources (i.e. hardware, software, and networking devices) to store, process, and transform data

resources into useful information resources, and then distribute these resources where needed. The internet is a global system of interconnected computer networks that utilize the standard Internet protocol suite (TCP/IP) to link several billion devices around the world. Most information systems today use the internet as a means to deliver information and/or services to users and other information systems. These types of information systems are known as web-based information systems. An example of a web-based information system is a Content Management System (CMS). According to www.comentum.com, this type of information system provides capabilities for multiple users with different permission levels to manage all or a section of content, data or information of a website project or internet/intranet application. Managing content refers to creating, editing, archiving, publishing, collaborating on, reporting, and distributing website content, data and information. An example of a CMS application is a Web Application that caters for the following administration, control panel, or website management functionalities:

1. Create, Edit, Publish, Archive web pages
2. Create, Edit, Publish, Archive articles
3. Create, Edit, Publish, Archive press releases
4. Create, Edit, Publish, Archive blogs
5. Add / Edit events into an Event Calendar
6. Add / Edit Inventory (products), description, product specifications, prices, photos, etc

7. Enter, Edit, or View orders and print packing slips and invoices View reports and statistics site data

8. Create and Edit system users which have different permission levels to different section(s) of the above administration

The standard of technology being used in PNG when compared to the rest of the world is somewhat lacking. Business houses and corporate organisations have access to moderately modern IT resources and company paid for internet access, while the ordinary citizen has to resort to internet cafes, USB modems, depending on if they own a laptop or computer, or their own mobile phones to use the internet. Although smart phones have now become fairly common among citizens, they aren't able to fully utilize their internet capabilities due to the lack of facilities that western countries and most of Asia has easy access too. This is mostly due the monopoly of the Communications industry by the nationally owned Telikom, whose internet plans and rates aren't entirely favourable. The South African Mobile Communications Company Digical joined the market in the year 2007 and the change they brought was refreshing to say the least, but in no way has it simplified the complexities of telecommunications and/or internet access in PNG. An example of this is the prices of internet data plans. Digicel and BMobile-Vodafone, a subsidiary of Telikom, offer internet data plans that range from 30MB, 50MB, 1.5GB to 10GB at prices that differ slightly from K5 (IDR 20,963) to K80 (IDR 335,408) and K375(IDR 1,572,227), and are valid for different amounts of time. Not everybody can afford these data plans, especially young men and women who are just out of high school and looking for new prospects, who need the internet to search for any opportunity they could take. Now, these plans with their prices

may not be ideal for this day and age and how people use the internet, but to simply access information through web applications like a blog or information system that has a mobile friendly version, it should be more than enough.

1.2 Problem Identification and Formulation

1.2.1 Problem Identification

From the background information, the following issues can be identified concerning the lack of an information system detailing the personal experiences of Papua New Guineans studying in Indonesia:

1. There is not in existence a functional information system that holds personal accounts of Papua New Guineans that are studying or have studied in Indonesia.
2. Such an information system would have to be easily accessible to Papua New Guineans, taking into account that not everyone in PNG has access to a laptop or computer. An efficient and user friendly mobile version of the application would probably be for the best.
3. The information should revolve around personal experiences of living and studying in another country, and not focus purely on the academic.

1.2.2 Problem Formulation

Based on the issues that have been identified, the existing problems of the system can be formulated as follows:

1. How to collect the information needed to fulfill the objective of this project.

2. How to design a web-based Content Management System that can store the collected information and have it available for easy access by those interested in it.

3. How to maintain such an information system and modify it as needed.

1.3 Research Objectives

The main purpose and objectives for conducting this research are as follows:

1.3.1 Purpose

The main objective of this study is the design and development of a web-based content management information system that will allow Papua New Guineans who currently are or were studying in Indonesia to share their experiences and stories with those who are interested to know.

1.3.2 Objectives

1. To collect information that is related to the objective of this project, dealing more with personal experiences rather than academic matters.

2. To design web-based content management system to store the collected information, and make it available to any interested parties.

3. To maintain this information system, and modify it when needed.

1.4 Research Implications

It is expected that this study will be useful to the following parties:

1.4.1 Practical (Informational) Uses

The development of this web-based content management information system will allow individuals who are interested in, or already a part of the program, to learn more about what it will be like on an everyday level. Just to give them a heads up, so to speak.

1.4.2 Academic Uses

1. **Institutions**

This research paper will hopefully be used as a reference journal for future students who are working on similar projects. Although this writer wouldn't recommend it.

2. **Other Researchers**

The ideas and concepts created in this research may also be used by future researchers who wish to further their knowledge about information systems development.

1.5 Limitations of Study

Due to the time restrictions and limited ability of this writer, the main discussion of this study will be restricted to the following:

1. The collection of information and experiences and stories.

2. The development of the web-based content management information system that will store the information and make it available to those who would view it.

1.6 Time and Location

This research was conducted at Universtias Komputer Indoensia, Lebak Gede 40132, Bandung, Jawa Barat. The duration allocated for this research project was from March 3rd 2016 to the end of July 2016.

Table 1.1 Research Schedule

Schedule	2016																			
	March				April				May				June				July			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Data Collection																				
Interviewing																				
Observation																				
Prototyping																				
Identifying system requirements																				
Analysis																				
Development of initial prototype																				
Coding																				
Testing of prototype																				
Experimentation																				
Revision and Improvement of Prototype																				
Revision																				
Operation of Prototype																				

1.7 Thesis Outline

CHAPTER I: INTRODUCTION

This chapter proposes the research background, problem identification, research objectives, research usability, and the limitations of the research.

CHAPTER II: LITERATURE

This chapter contains the citing of literature and previous studies that are related to the current project.

CHAPTER III: RESEARCH METHODOLOGY

This chapter discusses the research methodology and procedures used in the development of the information system.

CHAPTER IV: SYSTEM ANALYSIS AND DESIGN

This chapter proposes the analysis and design of the web-based information system. It discusses the development of the proposed system, including processes, data interpretation, database design, coding, and software testing.

CHAPTER V: CONCLUSION AND SUGGESTIONS

This chapter is where a conclusion of the research is made, and whatever recommendations are made concerning the usability and maintenance of the information system.