**Communication (3)**

4. Digital multimedia, or “new media” as it is sometimes called, has created a revolution in communications, commerce and entertainment

3. Advancing technology in wireless communication offers users anytime, anywhere, access to information and network resources without restricting them to the fixed network infrastructure

1. Because technology changes, you must keep up with the changes to remain digitally literate. Digital literacy involves having a current knowledge and understanding of computers, mobile devices, the Internet and related technologies.

**Management (3)**

5. Many business managers operate in an information fog bank, never really having the right information at the right time to make an informed decision. Instead, managers rely on forecasts, best guesses, and luck. The result is over or underproduction of goods and services, misallocation of resources, and response times. The poor outcomes raise costs and lose customers.

Time losses from traffic congestion are estimated to comprise 2 percent of GDP in Europe and 2 to 5 percent in Asia. The hidden external costs of traffic congestion in Metro Manila, Dakar, adn Abidjan have been pegged at nearly 5 percent of those cities' GDPs (Chin 2011).

2. Technology can enable you to more effect efficiently and effectively access and search for information.

**Automation (5)**

6. Businesses are using information technology to sense and respond to rapidly changing customer demand, reduce inventories to the lowest possible levels, and achieve higher levels of operational efficiency.

7. In order to expand space and time, techn5ological and organizational change has been essential. Technology is considered to be an abridged version of human work, facilitating the process of multiplication to an extent that could never have been imagined before. A machine would perform the task of a manual worker in a much shorter time, hence expanding the time available considerably.

9. Once we accept that technology is a process or product intended to respond to and satisfy human needs and wants, then change is an inevitable consequence. Before the technology is introduced, somebody needs or wants something. Afterwards, assuming is successful. for the need or want should be at least partly satisfied.

8. Machines replaced parts of jobs but not entire jobs. With the help of advanced technologies, existing jobs were quickly re-designed, and workers were rapidly re-trained. Workers were able to transition into these jobs, which were often technologically-augmented.

**Mobile (6)**

14. Mobile computing has become the most popular way to make a personal connection to the Internet. Mobile phones and tablets comprise that fastest growing category of any technology in the world.

12. While smartphones and tablets have been around have been around for several years, they are just beginning to change the way we work. We are at the beginning of the era of truly mobile computing.

13. Mobile computing is a technology that provide a service automatically based on perceived situational information in personal and ubiquitous environments. (preface p. xi)

16. The recent fragmentation of the mobile device market has made the importance of such a cross-platform development a need of the hour.

11. Mobile apps were originally developed to offer general productivity and information retrieval,

including email, calendar, contacts and weather information. p13

15. The technological advancements of smartphones have allowed mobile applications to offer more advanced features and a better user experience. Improvements in screen resolution and touch screen displays have been a major factor in improving the interactive user experience, particularly in gaming applications. Enhancements in battery life and processing power allow smartphones to run not just one but many applications at once and for longer. This is great of convenience to end users as they have single device that can perform many functions.

10. iPhone, iPads, Android tablets and smartphones are not just gadgets or entertainment outlets. They represent new emerging computing platforms based on an array of new hardware and software technologies. More and more business computing are moving from PCs and desktop machines to these mobile devices. Managers are increasingly using these devices to coordinate work, communicate with employees, and provide information for decision. We call these developments the "mobile digital platform. Managers routinely use online collaboration and social technologies in order to make better, faster decisions. As management behavior changes, how work gets organized, coordinated, and measured also changes. By connecting employees working on teams and projects, the social network is where works gets spaces are where employees meet one another--even when they are separated by continents and time zones.

Most people, either at a young or old age, have smartphones today and it has become an integral part of every individual’s life due to useful mobile applications which are relatively easy to access and simply make one’s life better as a result. (Oza, 2017). Mainly, mobile applications are present to maximize the use of a smartphone and to get the most out of it. (Rajput, 2017). The proponents decided to come up with a mobile application for the reason that smartphones are more ubiquitous than laptops or personal computers. (Laszlo, et.al, 2018) Moritz (2015) stated in his study titled Mobile Application Development in the Tourism Industry and its Impact on On-Site Travel Behavior that mobile applications was first popularized by Apple with the introduction of its App Store soon followed by Google’s Play Store which both offer a storefront for developers to distribute their software to consumers.

There are a tremendous number of useful mobile applications available on both the App Store and Google Play. And due to the increased demand of individuals to travel and explore, travel applications are the seventh most downloaded in the application categories. (Sapra, 2016). As technology continues to bloom and emerge, new trends of useful applications continues to rise especially for the benefit of the travel and tourism industry. With this advancements, people all over the world are more comfortable using their own smartphones and installing travel applications to explore the places they will be going all throughout their entire trip. (Beklemysheva, n.d).

Travel and exploring more of the world became an interest for most people nowadays. Among the vast list of tourist destinations throughout the world is the Philippines, which is considered as one of the top tourist destinations by people all over the world. Not only does this country have beautiful beaches and scenic spots for people to enjoy, but also a rich historical and cultural background that tourists find interesting. The Philippines became a melting pot of various cultures like Spanish, Chinese, Japanese, and American which has greatly affected the Filipino customs, traditions, and norms. (Balinski, 2018) With the Philippines acquiring a lot of influences, its historic landmarks have played a major part in its tourism industry. (Baroro, 2016) For instance, Philippine architecture was dominated by Spanish influences. It marks obvious for colonial parish churches are designed adapting the Spanish influence just like the Manila Cathedral (Kang, 2015). Among the destinations that tourists can explore in the Philippines is Manila, its capital. Manila has an immense historical and cultural significance for its people. (Chepkemoi, 2018) The complex past of Manila still stands through due to the historical and cultural landmarks still evident even now. These landmarks speaks beyond its beauty, Manila’s historical and cultural roots.

Ka-Byahe will be focusing on the historical and cultural places found within the city of Manila. One of the application’s functionalities is to provide an itinerary of places based on gathered user preferences. Hence, the distance and preferences will be the basis of generating itineraries for the user. For instance, the user will first select three starting preferences like churches, museums, and monuments. Then, based on the user’s selection and distance approximation, the application will generate itineraries for the user. This may be comparable to Sygic, a travel application, which also generates itineraries for the user, except it does not include user preferences. (Patkar, 2018).

Since the application will involve different historical and cultural places, the proponents will utilize the Google Maps API. The map will be the first thing the user will see in the home screen accompanied by a search bar and a button to redirect to the user’s current location. The user’s current location will be automatically seen in the map displayed using the coordinates returned by the API. This is similar to the study titled “PWDirectory - Mobile Application”, (Co, et.al, 2017) which also utilized the Google Maps API. The users will also be able to see nearby historical and cultural places, based on his current location, just like the “Near Me Now” feature of TripAdvisor. Along with this, the user will also be able to share his moments through the application by uploading a photo or a review, which will be filled into a thread about the certain place afterwards. This is also similar to TripAdvisor’s “Travel Advice” feature. (TripAdvisor, 2018).

Another functionality of the application is to give weather information regarding a certain historical or cultural place. Accurate weather predictions are vital most especially in planning activities for a certain day. This is held similar to Packpoint, a smart packing list application. It has the functionality to produce weather informati