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ИЗДАТЕЛЬСТВО

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MOBILE APPLICATION TO SCIENCE AND TECHNOLOGY PORTAL OF LAO

A. Phongtraychack[1, 2], V. Syryamkin[1]

[1]*National Research Tomsk State University. 634050, 36 Lenin Avenue, Tomsk, Russia*
[2]*National University of Lao PDR. 7322, Dongdok, Vientiane, Lao PDR*
idea.phongtraychack@gmail.com

The mobile application portal denotes a gate, a door, or entrance. In the context of the Android application, it is the next logical step in the evolution from an app to a portal. The current popularity of smartphones is mostly due to the possibility of selecting mobile app that suits one's needs. It is tempting for a developer to conclude that the development of mobile apps is simple. The idea of a portal is to collect information from different sources and create a single point of access to information.
Keywords: Mobile Portal, Android, Lao, Ministry of Science and Technology.

The Ministry of Science and Technology, abbreviated as "MOST", is sectoral and administrative body at central level, governmental structure and has a role of secretariat to the government in developing and administering the work concerning Science, Technology, Innovation, Intellectual Property, Standardization and Metrology throughout the country [1].

Currently, the reported and promoted in S&T in Lao PDR are not enough information to be managed. My research work has identified the following problems:
- There are limited capacities to analyze information in S&T;
- S&T information is not detailed enough to meet the users' needs;
- Lack of business integration with science, technology and innovation;
- Staffing constraints and limited skilled human resource capacities in scientific research and quality data dissemination on a regular basis;
- Poor financial support for research in science and technology;
- Limited access to international resources and data;
- Poor infrastructure which leads to slow internet connectivity and its malfunctioning in remote places;
- Absence of Institute for Science and Technology [2].

Based on the above problems analysis, the following targets have been identified for the Lao Science and Technology Mobile Portal:
- Open up possibilities for international and domestic collaborations in research for young and promising scientists;
- Promote S&T cooperation and stability;
- Foster S&T growth and high levels of employment.

A portal represents an application that provides the news of science and technology which will getting update everyday with lists of the news articles in the app and portal to website. Each page contains times publishing and text with news details. Besides, users can also see the other contents such as about LST (Lao science and technology), about TSU (Tomsk State University), contacts, and some Lao government ministries.

Android is a mobile operating system developed by Google, based on a modified version of the Linux kernel and other open source software and designed primarily for touchscreen mobile devices such as smartphones and tablets. In addition, Google has further developed Android TV for televisions, Android Auto for cars, and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on game consoles, digital cameras, PCs and other electronics [3].

Android apps can be written using Kotlin, Java, and C++ languages. The Android SDK tools compile your code along with any data and resource files into an APK, an Android package, which is an archive file with an .apk suffix. One APK file contains all the contents of an Android app and is the file that Android-powered devices use to install the app.

To develop Android app, we need Android studio, we can develop app using java programming language and with and without the support C++. Latest google announced android will support Kotlin Programming language [4].

Android Studio is a "fairly new IDE (Integrated Development Environment) made available for free by Google to Android developers", it is "based on IntelliJIDEA, an IDE that also offers a good Android development environment" (Govender 2014). Compared with Eclipse, Android Studio has better startup time, response speed and memory usage. What's more, it has smarter editor which absorbs advantages of Eclipse and ADT, and has real-time preview of interface as well. Studio also supports every plugin, such as Git, Markdown and Gradle [5].

The project is mobile portal will be used for information integration, to increases the attractiveness of business-to-consumer, to enables informal communication between center level with local level used for promote science and technology in Laos, and supportable to the Ministry of science and Technology and useful for promote and collecting information science and technology in Lao PDR.

This portal used to a modification of mobile technology in order to support and develop science and technology in Laos, such as in line of ministry and other government institutions (Fig. 1).

A "Mobile Portal" is most often a specially designed mobile site that brings information together from diverse sources in a uniform way. The ST mobile portal provides managers with information and support for effective decision making, and provides feedback on daily operations, output, or reports (generated through accumulation of transaction data). The program will help our organization to reform and move towards the next steps necessary for developing Lao S&T system.
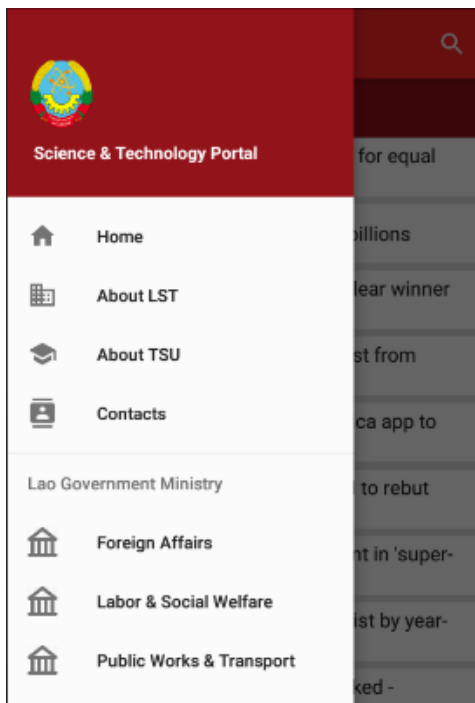

Figure 1. Interface of Lao science and technology mobile portal

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