Mobile Application Development for Beginning Students in Guangdong: A Chinese App Inventor

MIT has established a Center for Mobile Learning to explore the educational potential of mobile technology. One of the Center's major projects is MIT App Inventor, a graphical programming platform that enables beginning students to create mobile applications for Android smart phones. App Inventor currently has about a quarter million users around the world, and several significant curriculum projects are underway where students create smart phone apps as an introduction to programming, and also as a gateway to entrepreneurship in the digital economy.

During the summer of 2013, MIT-EECS Professor Hal Abelson and MIT-China Educational Technology Initiative (CETI) development project students, Weihua Li and Arun Saigal, hosted an App Inventor workshop at Zhongshan (Sun Yat-sen) University in Guangzhou. 60 Guangzhou high school and middle school teachers participated in the workshop, which consisted of two lectures: the first, a general introduction of App Inventor that covered basic and advanced tutorials; the second, a project based application of the tutorials' content. The participants presented their projects at the conclusion of the workshop.

Group picture in front of the main gate at Sun Yat-Sen University, Guangzhou

The main objective of this project is for MIT and Zhongshan University's School of Mobile Information Engineering (part of the School of Software) to work together to create a Chinese version of the App Inventor programming platform and hosting service, for use initially at Zhongshan University and later for dissemination throughout China. Some of the work is purely technical: globalizing MIT App Inventor and then producing a localized Chinese translation of the system and the language. Other parts of the project are educational: translating MIT App Inventor curriculum materials into Chinese and adapting them for use with Chinese students. The broader part of the project is to build on this basis to develop new materials that let students create mobile applications and become involved in entrepreneurship -- similar to what the App Inventor group has been doing at MIT but adapted to the *localized* requirements of China and Chinese culture.

The School of Mobile Information Engineering at Zhongshan University plans to begin using App Inventor in its introductory curriculum and also to disseminate their materials throughout Guangdong province. Zhongshan University is particularly interested in App Inventor as a way to make mobile development accessible to a non-technical audience, and also as introduction to programming to beginning students. Zhongshan University plans to promote these uses of App Inventor to the public and to other universities and colleges in Guangdong. Major components of the project will include creating a Chinese version of App Inventor and adapting the App Inventor network infrastructure for use in China. Work will also include adapting MIT curriculum materials for Chinese use, creating original materials in Chinese, and piloting the course at Zhongshan University and other universities in eastern and western China through a series of App Inventor workshops run by MIT-China Educational Technology Initiative students.

App Inventor Workshop graduation, Guangzhou