### ELFA 2018

## The Use of Mobile Apps to Solve Pedagogical Problems and Promote Coding Education

Apps Resource Centre 流動程式教學資源中心 Zhaoyue Liu Apps Resource Centre Hong Kong Baptist University



### ELFA 2018

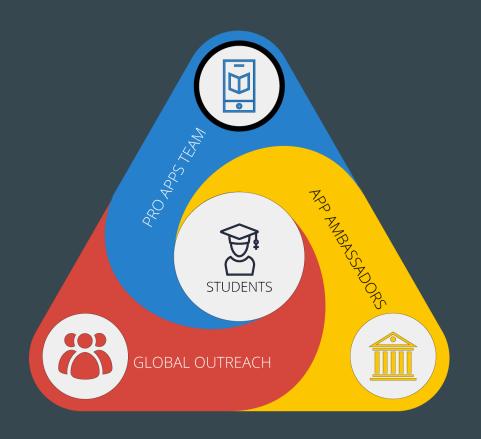
The need for educational apps to solve pedagogical problem

Approach: Pro Apps team and ubiquitous learning

The need for multi-domain learning for innovation and creativity

Approach: Apps Ambassadors Team and coding education

• The need for networking and global involvement Approach: Global outreach Team and service-learning



- Building on the successes and experiences of UGC-TLRI 2012-2015 Triennium project
- Addressing the specific pedagogical issues through an app
- Implementing different learning approaches
- Studying the impact of effectiveness of these apps and new learning approaches

### PORTFOLIO







圆





























## Pro Apps Team and Ubiquitous Learning

#### Music

- 20th Century Music Study Guide
- Music Technology Glossary
- Hindustani Classical Music
- Latin American & Spain

### Language enhancement

- AV Phonetics
- English Vocabulary Crosswords
- A+ Paper Guide
- Music of Latin America & Spain

### Chemistry

- ChemQuest Quiz
- Analytical Chemistry Challenges
- Spectral (Spectrophotometer)

### **Medical Science**

- Chinese Medicinal Plants Guide
- Central Intern Orientation
- Chest Radiograph
- Spinal Radiology
- Radiographs Abdomen CT

## AV Phonetics App Review



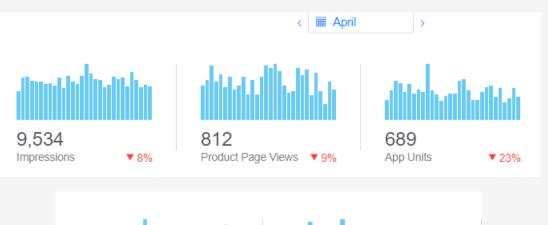


Aug 1, 2017 kanjibox

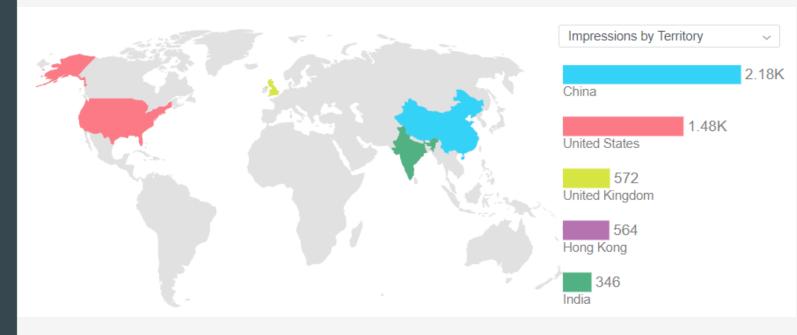
I am educating myself in various topics including correct language articulation as this is vital in vocal communication. Dictionaries use a phonetic alphabet, utilizing characters from type sets of mechanical printing presses for correct pronunciation, which forms a unique language that later developed into the International Phonetic Alphabet.

AV Phonetics offers full comprehension of the International Phonetic Alphabet with charts, audio, animation, and interactive elements....

## AV Phonetics Statistics - Apr,2018





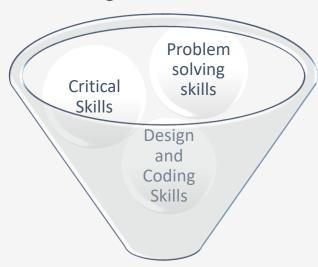




# The needs for multi-domain learning for innovation and creativity for graduates

### Objective

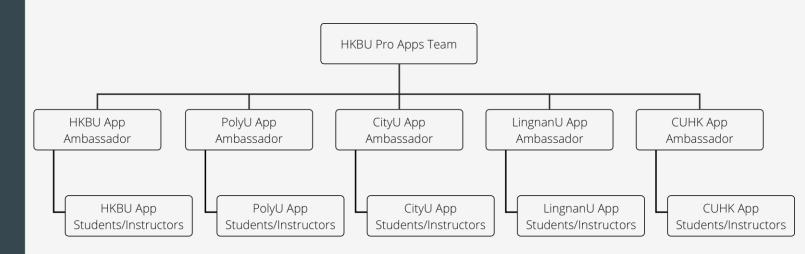
- To engage students in creative process of app making
- To develop problem solving skills and critical thinking skills



App Making Process

# PROAPSTEM **STUDENTS** (0) GLOBAL OUTREACH

# Apps Ambassadors Team and Coding Education





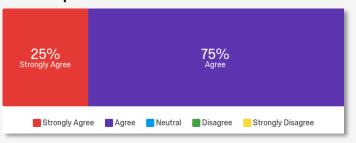
# Apps Ambassadors Team and Coding Education

## Teach and mentor students in mobile Apps development

- In studio based
- In extra-curricular tutorials
- Enable coursework, final year projects or extra curricular projects

## Results From Workshops

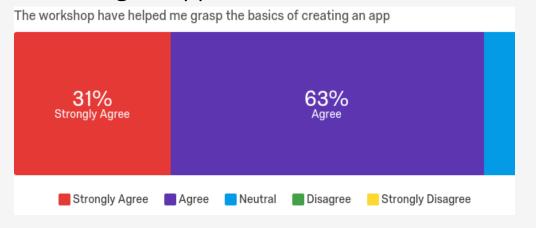
By the end of workshop, students able to develop certain functionalities, Example of translator:

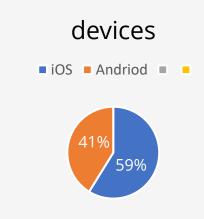


By the end of workshop, students able to develop certain functionalities, Example image recognizer:



## The workshop have helped me grasp basic of creating an app







# The need for Networking and Global Involvement

- Pairing community needs to student app makers in service learning projects
- Encouraging to taking on projects to serve the educational, social, and environmental needs of the larger community
- Arranging field trip for students, fostering the understanding of community needs and issues can be addressed by apps



### Global Outreach and Service Learning

- Organize app-making competitions, guest seminars and field trips
- Identify App development projects for students

## --ubiquitous learning STUDENTS GLOBAL OUTREACH service learning studio-based learning

### We Engage

- Faculty
- Students
- Community

## Thank you

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