

YouthMobile 



Massachusetts
Institute of
Technology

MIT App Inventor

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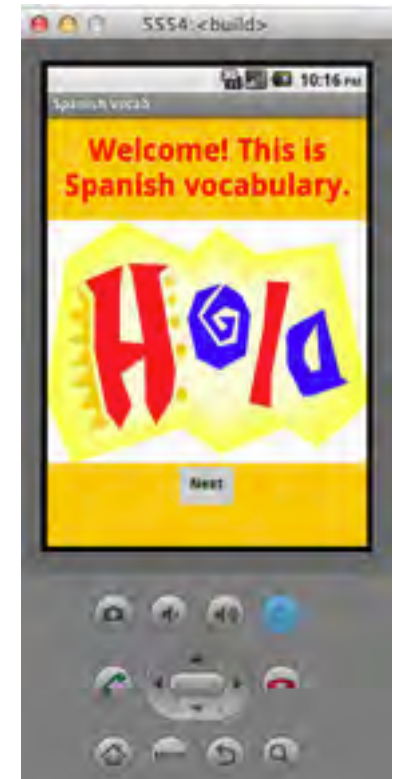
Education and Business Development
Coordinator





WHAT IS MIT APP INVENTOR?

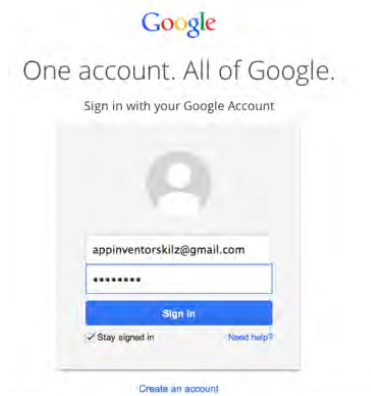
- A free, blocks based visual programming language that enables people with no prior coding experience to create mobile apps
- Accesses mobile device features
- Enables users to share fully functional Android apps



Getting Started

1

Create a Google Account



2

Click **Create apps!**
on [AppInventor.MIT.edu](https://appinventor.mit.edu)

3

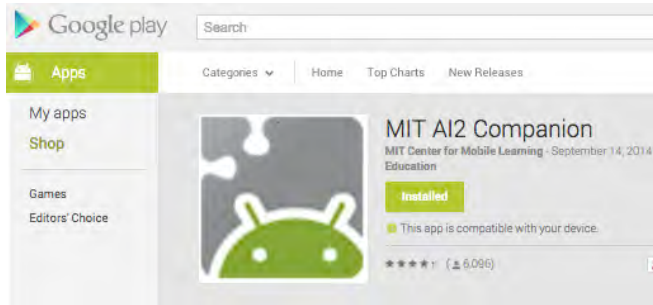
Start a New Project

4

Build your App

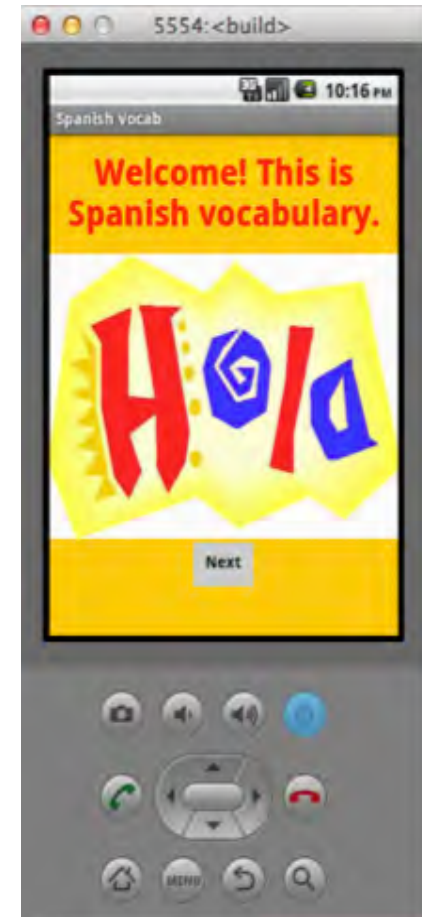
5

Download the AI Companion



7

Test Your App



6

Connect Your Device





MIT APP INVENTOR – DESIGNER

MIT App Inventor 2 Beta

Project ▾ Connect ▾ Build ▾ Help ▾

My Projects Guide Report an Issue joshesheldon@gmail.com ▾

Spanish Screen1 ▾ Add Screen ... Remove Screen Designer Blocks

Palette

User Interface

- Button
- CheckBox
- Clock
- Image
- Label
- ListPicker
- Notifier
- PasswordTextBox
- Slider
- TextBox
- WebView

Layout

Media

Drawing and Animation

Sensors

Viewer

☐ Display hidden components in Viewer

Spanish vocab

Spanish Vocab

Hola

Next

Components

- Screen1
 - VerticalArrangement1
 - SpanishVocab
 - VerticalArrangement2
 - Image1
 - NextButton
 - TextToSpeech1

Properties

Screen1

AboutScreen

AlignHorizontal

Center

AlignVertical

Top

BackgroundColor

Orange

BackgroundImage

None...

CloseScreenAnimation

Default

Icon

None...

OpenScreenAnimation

Default

ScreenOrientation

Unspecified

Rename Delete

Non-visible components



MIT APP INVENTOR – BLOCKS

Blocks

Built-in

- Control
- Logic
- Math
- Text
- Lists
- Colors
- Variables
- Procedures

Screen1

- Button1
- Texting1
- AccelerometerSensor1
- LocationSensor1
- Sound1

Viewer

call Sound1 .Pause

call Sound1 .Play

call Sound1 .Resume

call Sound1 .Stop

call Sound1 .Vibrate
milliseconds

Sound1 . MinimumInterval

set Sound1 . MinimumInterval to

Show Warnings

Sound1 . Source

when Button1 .Click
do



MIT APP INVENTOR – BLOCKS

MIT App Inventor 2 Beta

Project Connect Build Help My Projects Guide Report an Issue joshesheldon@gmail.com

Spanish Screen1 Add Screen ... Remove Screen Designer Blocks

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Colors
 - Variables
 - Procedures
- Screen1
 - VerticalArrangement1
 - SpanishVocab
 - VerticalArrangement2
 - Image1
 - NextButton
 - TextToSpeech1
- Any component

Rename Delete

Viewer

initialize global list to make a list

- "Welcome! This is Spanish vocabulary."
- "Pluma means pen."
- "Mi perro comio mi Tarea."
- "Casa means house."
- "Ropa means clothes."
- "Zapatos means shoes."
- "Papel means paper."
- "Regla means ruler."
- "Calculadora means calculator."

initialize global index to

initialize global image to

when Screen1.Initialize do

- set SpanishVocab
- set Image1 . Vis

when NextButton.Click do

- set global index to get global index + 1
- if get global index > length of list list get global list then set global index to 1
- if get global index > length of list list get global image then set global index to 1



VISION: APP MAKING FOR EVERYONE



App Inventor enables people to:

- Learn computational thinking
- Learn programming through a visual language
- Create apps that matter to them

APP INVENTOR: MORE THAN COMPUTER CODING...



- Sparks creativity
- Encourages innovation
- Learn about design and design thinking
- Develop research skills
- Provides a way to contribute to society in a positive and productive way

HISTORY

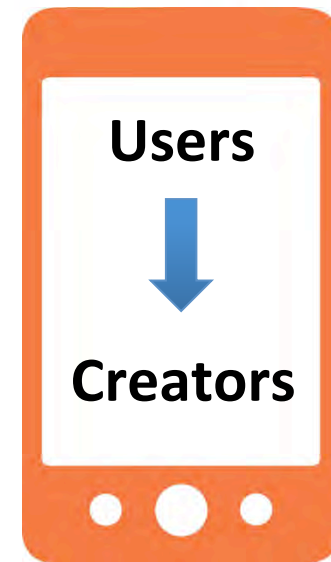
2007-2008

iPhone/Android

2008-2009

**MIT Professor Hal Abelson and Google
Programmer Mark Friedman create
Google App Inventor**

Google



1st University of San Francisco course 2009



App Inventor Publicly Launched 2010

The New York Times

TECHNOLOGY

Google's Do-It-Yourself App Creation Software

By STEVE LOHR JULY 12, 2010



It's Alive! Taking Android's App Inventor For A Spin

Posted Jul 12, 2010 by [Jason Kincaid](#) (@jasonkincaid)

HISTORY

2011

Google Labs Closes

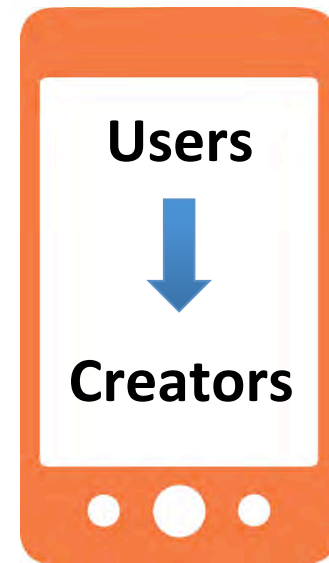
**App Inventor transitions to MIT
CSAIL**

MIT Media Lab

MIT Center for Mobile Learning

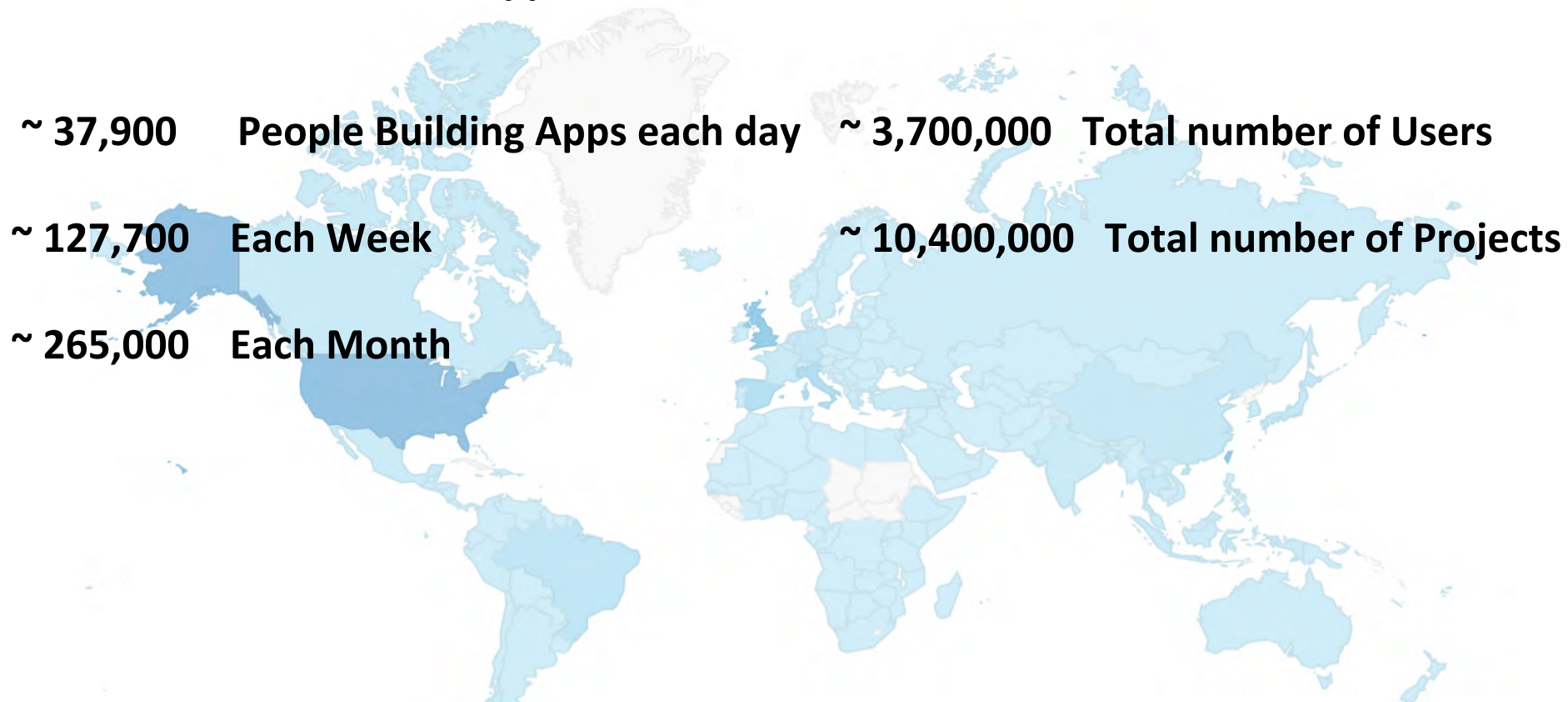
2013

MIT App Inventor 2



MIT APP INVENTOR SERVICE...

App Inventor Used in 195 Countries



Translation Project

MIT App Inventor 2
Beta

项目 连接 打包apk 帮助

我的项目 向导 反馈 简体中文

PaintPot

Screen1 增加屏幕 删除屏幕

模块

工作面板

内置块

控制
逻辑
数学
文本
列表
颜色
变量
过程

Screen1

HorizontalArrangement1

ButtonBlue
ButtonPink
ButtonGreen
ButtonYellow
Button1
ButtonOrange

Canvas1

HorizontalArrangement2

重命名 删除

素材

当 ButtonBlue .被点击
执行 设 Canvas1 . 画笔颜色 为

当 ButtonPink .被点击
执行 设 Canvas1 . 画笔颜色 为

当 ButtonGreen .被点击
执行 设 Canvas1 . 画笔颜色 为

当 ButtonYellow .被点击
执行 设 Canvas1 . 画笔颜色 为

当 ButtonOrange .被点击
执行 设 Canvas1 . 画笔颜色 为

当 Button1 .被点击
执行 设 Canvas1 . 画笔颜色 为

0 0

显示警告

当 Canvas1 .被触碰
x坐标 y坐标 zh_CN_touchedAnySprite
执行 调用 Canvas1 .画圆
zh_CN_centerX 取 x坐标
zh_CN_centerY 取 y坐标
zh_CN_radius 取 global dotsize
fill true

当 Canvas1 .被拖动
起点X坐标 起点Y坐标 前点X坐标 前点Y坐标 当前X坐标 当前Y坐标 zh_CN_draggedAnySprite
执行 调用 Canvas1 .画线
第一点x坐标 取 起点X坐标
第一点y坐标 取 起点Y坐标
第二点x坐标 取 当前X坐标
第二点Y坐标 取 当前Y坐标

当 Erase .被点击
执行 调用 Canvas1 .清除画布
初始化全局变量 small 为 3
初始化全局变量 big 为 5
初始化全局变量 dotsize 为 2

1st INTERNATIONAL CONFERENCE

International Conference on Mobile Learning
and Computational Thinking Education, based on App Inventor



MIT App Inventor

简体中文

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International Conference
on Mobile Learning and
Computational Thinking Education,
based on App Inventor

1st
2015

Guangzhou
June 13-15



Mobile Learning
&
Computational thinking
Education

June, 13-15, 2015
Guangzhou

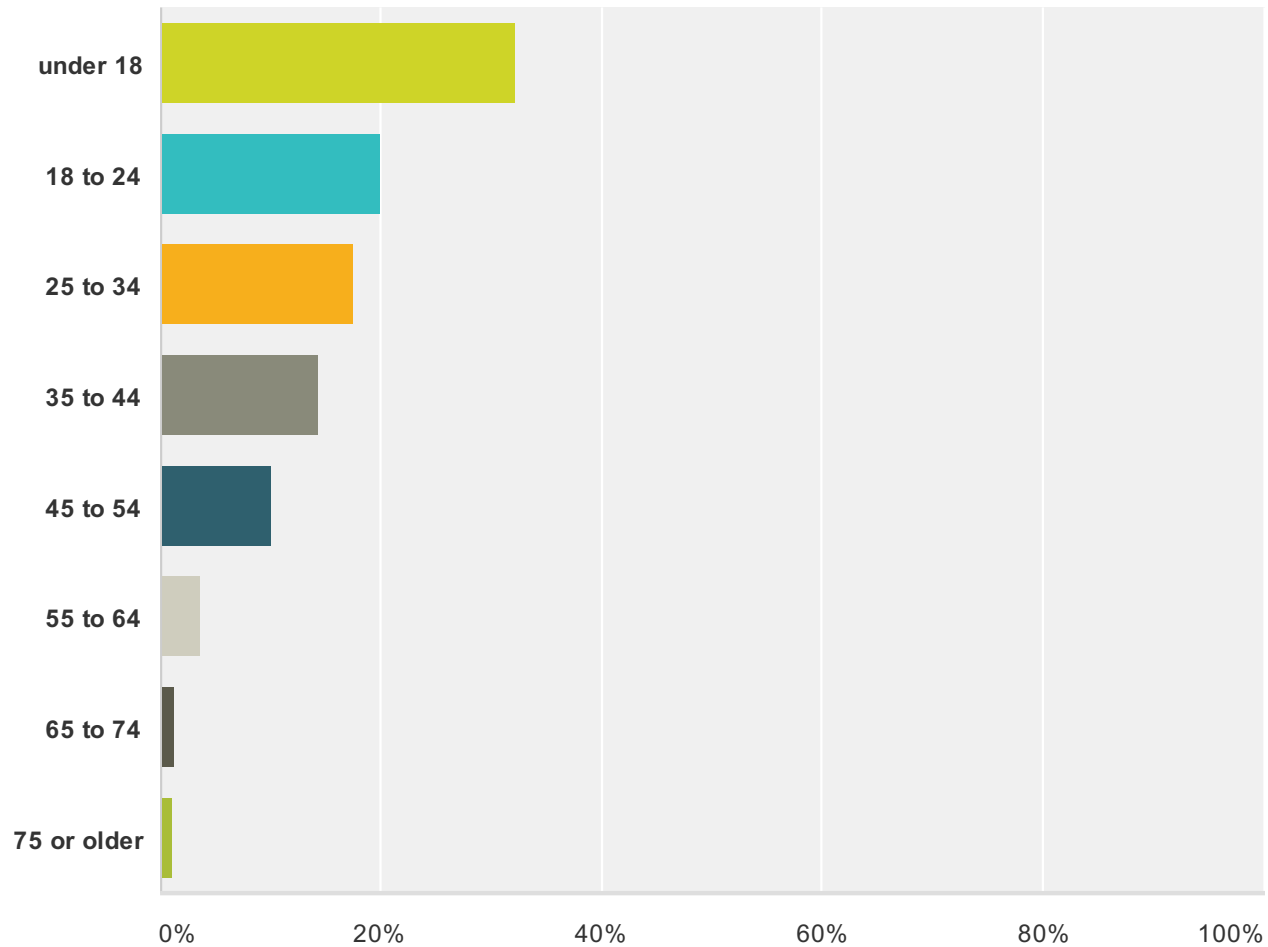
An event by: Bureau of Education of Guangzhou Municipality,
Massachusetts Institute of Technology(MIT),
South China University of Technology
Organized by: Guangzhou Education Information Centre

Sponsors: Guangzhou Broadband Backbone Network Co., Ltd.
Huawei Technologies Co., Ltd, Google China

Google 2015 App Inventor National School Challenge

- **A total of 1195 submissions**
 - **623 from high school teams**
 - **572 from middle school teams**
- **Finalists being chosen in late October**
- **Winners announced in December**

AGE OF APP INVENTOR USERS



ESQUEL APPS

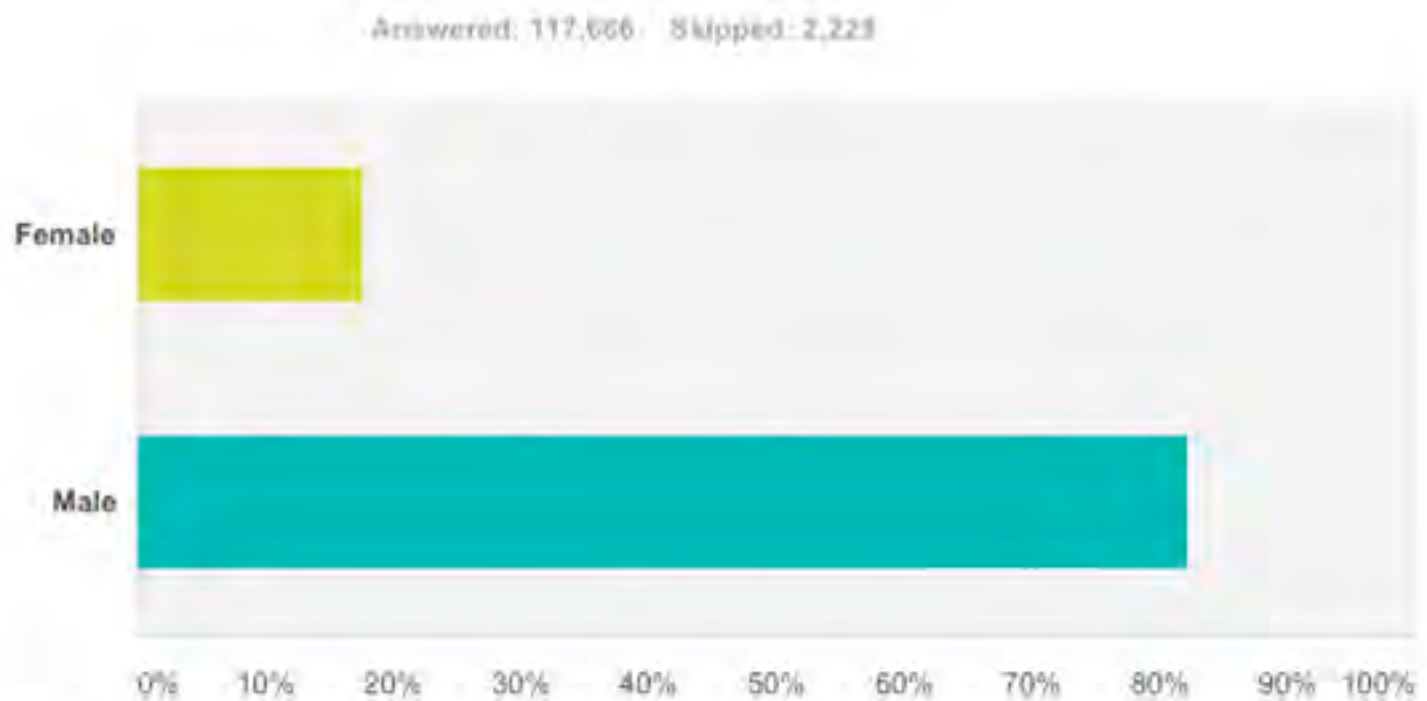
[GET – SET – GO] [工位信息助手]

Anura Peiris (PTX-JAE)

- Send greetings to workers before they come to work and get confirmation of their attendance
- Supervisors can change the production line setting to balance the line.
- It provides performance data to employee. Supervisor can send instant compliment to staff for good performance
- Provides staff caring, grievance, suggestion collection, and notification, etc.
- Able to collect line information quickly, reduce the supervisor's workload and enhance worker's self esteem and improve the productivity.



WHAT'S YOUR GENDER?



technovation



Technology education and entrepreneurship
program for high school girls

3 month, 50 hour App Inventor curriculum

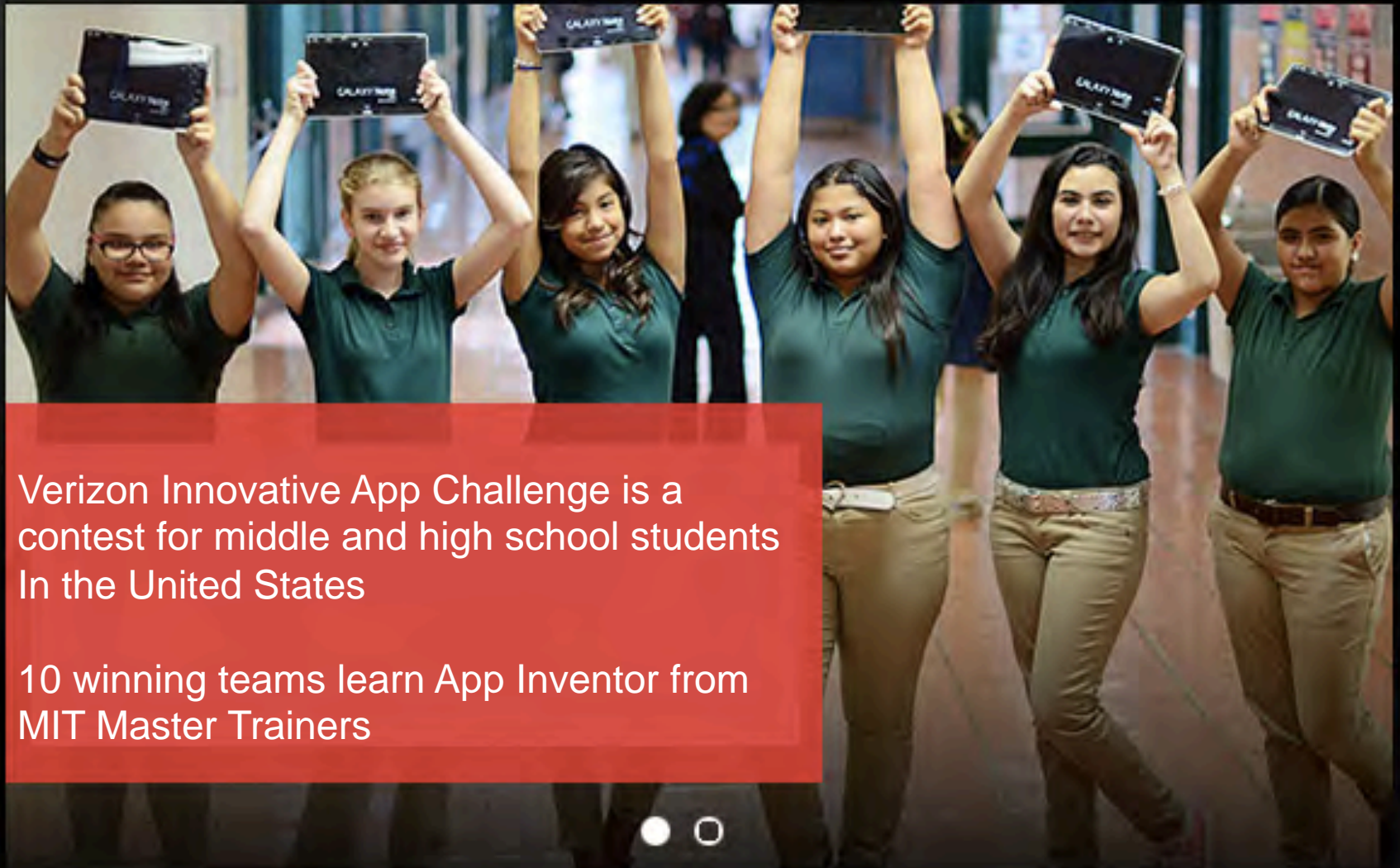


An app to help people find pure sources of water

Apa Pura
Moldova



SAMSUNG

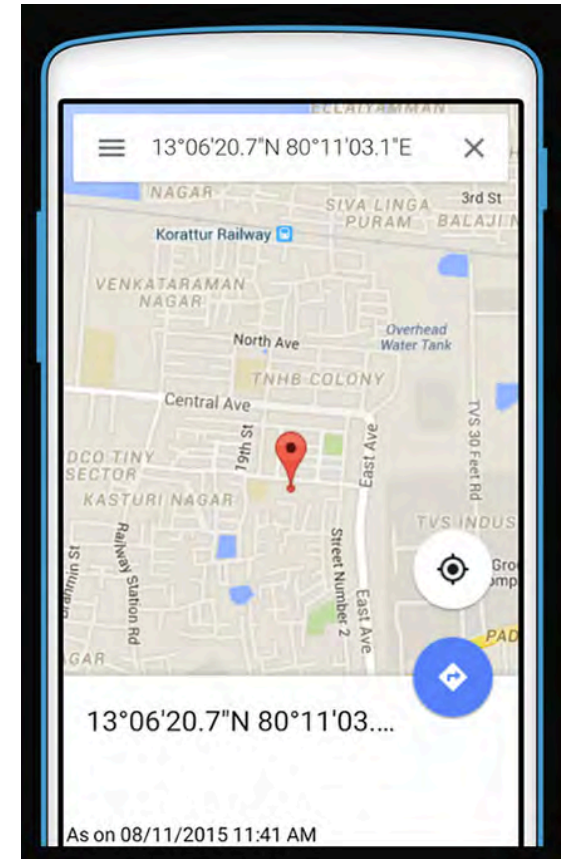
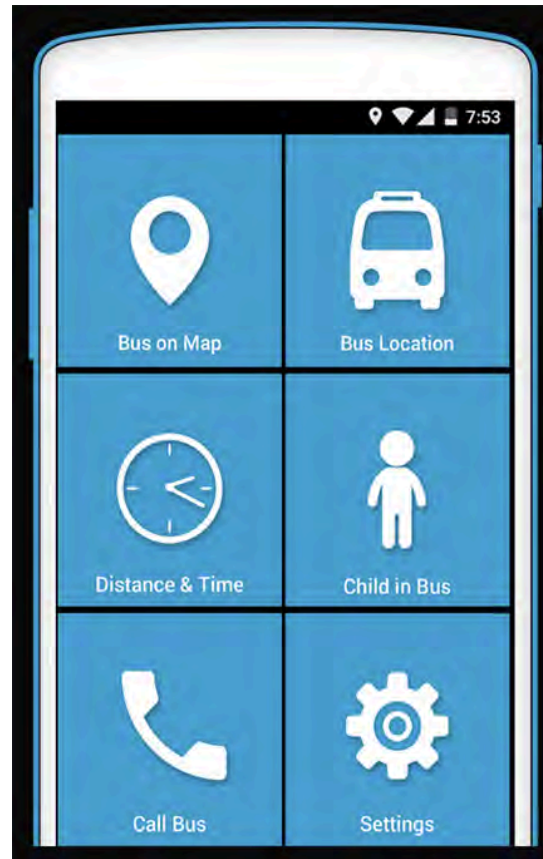


Verizon Innovative App Challenge is a contest for middle and high school students In the United States

10 winning teams learn App Inventor from MIT Master Trainers

School transport management solution

Locatera
India





APP INVENTOR GALLERY

MIT App Inventor 2 Beta

Projects Connect Build Help Admin

My Projects **Gallery** Guide Report an Issue English mckinney@appinventor.mit.edu

HelloPurr Screen1 Add Screen ... Remove Screen Designer Blocks

Palette

User Interface

- Button
- TextBox
- ListView
- DatePicker
- TimePicker
- CheckBox
- Label
- ListPicker
- Slider
- PasswordTextBox
- Notifier
- Image
- WebView
- Spinner

Layout

Media

Drawing and Animation

Sensors

Social

Storage

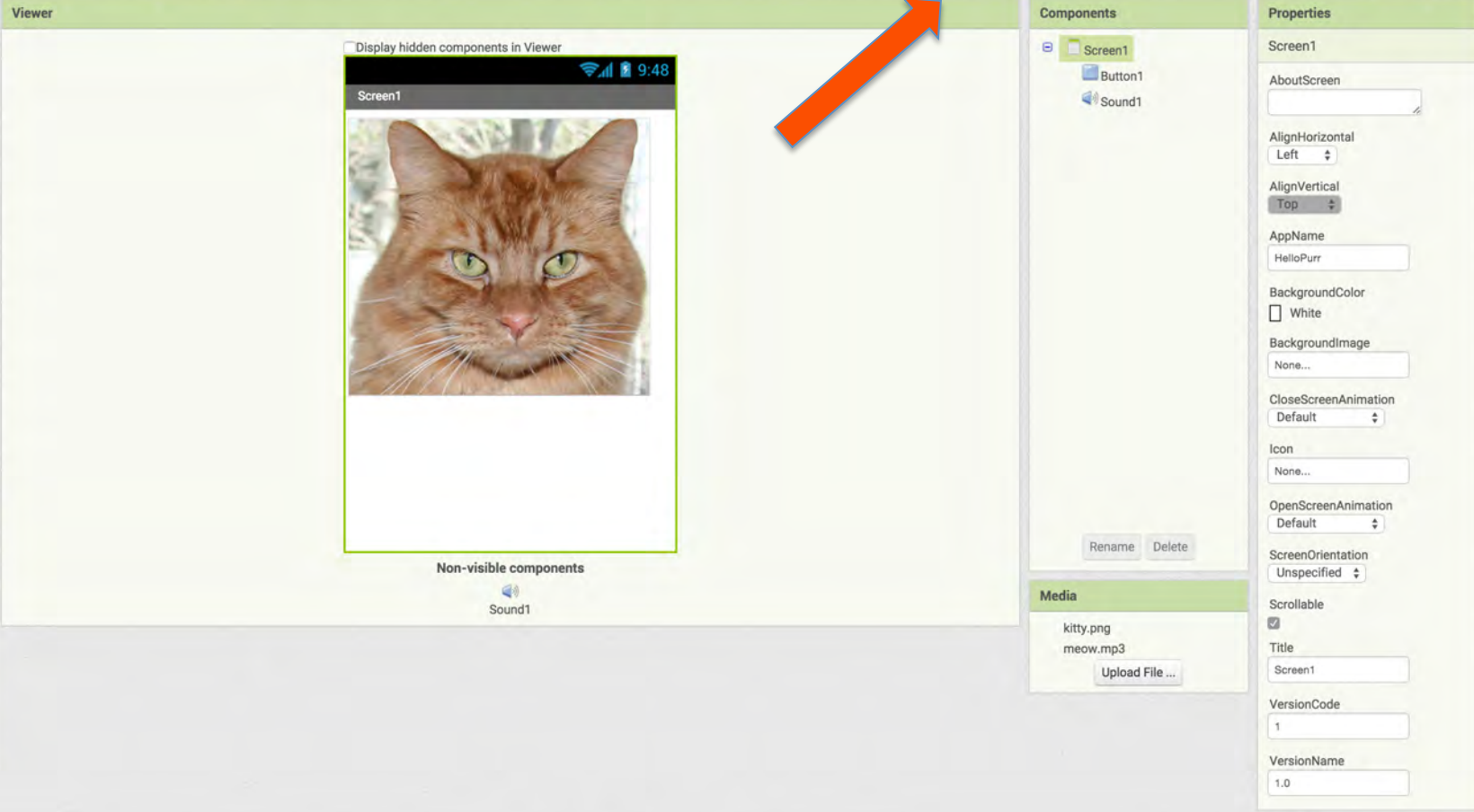
Connectivity

LEGO® MINDSTORMS®

Viewer

Display hidden components in Viewer

Screen1



Non-visible components

Sound1

Components

- Screen1
 - Button1
 - Sound1

Rename Delete

Media

- kitty.png
- meow.mp3

Upload File ...

Properties

Screen1

AboutScreen

AlignHorizontal

Left

AlignVertical

Top

AppName

HelloPurr

BackgroundColor

White

BackgroundImage

None...

CloseScreenAnimation

Default

Icon

None...

OpenScreenAnimation

Default

ScreenOrientation

Unspecified

Scrollable

True

Title

Screen1

VersionCode

1

VersionName

1.0

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APP INVENTOR GALLERY

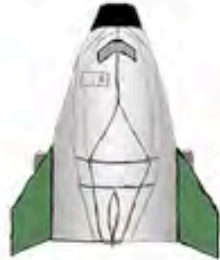
RECENT FEATURED **POPULAR** SEARCH

2769 results



Kids, STOP! - Spark!
sstaggs049

👤 169 ❤️ 48



Space_invaders
CREEPER.SMASH.CO

👤 295 ❤️ 39



CREEPER_SMASH_2
CREEPER.SMASH.CO

👤 112 ❤️ 15



ChessGuide
No Watson No

👤 332 ❤️ 13



Talking_Man! Have
robin_vinod_verghese

👤 530 ❤️ 12



MLGsoundboard
Its Watson Boys

👤 485 ❤️ 10



IlluminatiClicker
William290501

👤 371 ❤️ 9



Celebrity Knockout
15McGillTimo@calvinc

👤 34 ❤️ 9



clashclicker1
Ps3.ball1234

👤 1204 ❤️ 8



MichaelRosenSound
XxX_GeOrGe_ThE_cOo

👤 239 ❤️ 8



APP OF THE MONTH CONTEST

- A way for us to learn about what you are creating
- A way for you to connect with MIT
- A way to share your apps with others.

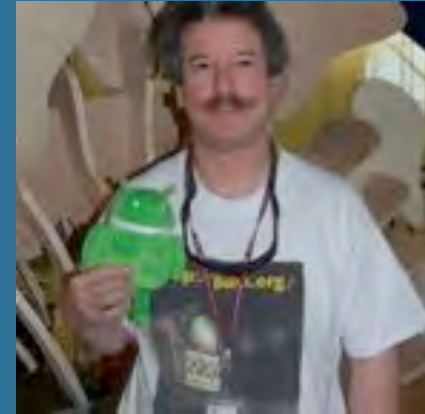
MIT App Inventor Team



Hal Abelson



Andrew McKinney



Jeff Schiller



Josh Sheldon



Felicia Kamriani

MIT Student App Inventor Internet of Things Projects

- **BLE Sensors**
- **Beacons**
- **Evaluating the User Experience**





PROFESSIONAL EDUCATION



APP INVENTOR



DEVELOPER-LED COURSE
FOR EDUCATORS

MASTER TRAINERS PROGRAM

in Educational Mobile Computing 2015

Online coursework
Begins October 19, 2015



3-day
in-person program at MIT
March 24, 25, 26, 2016

Master Trainers Program

- Part 1** **edX App Inventor Mooc (began October 19)**
Mobile Computing with App Inventor – CS Principles
- Part 2** **Apply by December 14**
Accepted applicants begin 10-weeks of online
self-study course work
- Part 3** **3-day in-person intensive workshop at MIT,**
March 24, 25, 26, 2016

Now imagine a different world, where creating apps doesn't require years of programming experience, where artists, scientists, humanitarians, health-care workers, attorneys, firefighters, marathon runners, football coaches, and people from all walks of life can create apps. ...transform ideas into prototypes without hiring programmers-

David Wolber
AppInventor.org

