A Survey of Apps for eLearning 2014

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Keynote Address to eLearning 2014
Siam Technology College, Bangkok, Thailand, 12 December 2014
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1. Introduction

- As of July 2014, the number of Apps in leading Apps Stores are:
  - 1,300,000 in Google Play
  - 1,200,000 in Apple App Store
  - 300,000 in Window Phone Store
  - 200,000 in Amazon App store
  - 130,000 in BlackBerry World

or over 3 million Apps [1]
Introduction (Cont.)

* From Techcrunch.com, the usages of Apps are increasing in the year 2014 [2].

* As of March 2014, on the average, the users are spending 2 hours and 42 minutes per day on mobile devices and 2 hours and 19 minutes of the 2 hours and 42 minutes are used on Apps.
In percentage, in the year 2014, the time spent on Apps is 86% of the total time spent on mobile devices. However, the largest percentage of time spent on mobile devices is 32% on games.
The other usages are 17% on FaceBook,
- 9.5% on other social messaging,
- 8% on utilities,
- 7% on Apple Safari,
- 5% on Google Browser,
- 4% on productivity,
- 4% on YouTube,
- 4% on entertainment,
- 3% on news,
and the rest on others.
The statistics from Techcrunch did not mention uses of App for eLearning but since eLearning are getting more and more popular,

Apps must have been and will continue to be used for eLearning. The first author has written many articles about App [3-13].
This paper discusses:
- Ten App Trends for Education and Others in 2014,
- Kids Developing Apps,
- Apps for Education Developed by Teachers,
- Apps Developed by Students,
- App on a Tattoo on the User’s Arm,
- Education Apps from Apple Apps Stores
- Education Apps from Google Play
The guardian presented ten app trends for the year 2014 [14].

The first trend is that an apps crash is coming.
The average revenue for an app for the developer is about 8,000 US$. But a lot of apps are hobbyist projects and do not earn any money and so there would be a crash.
Ten App Trends for Education and Others in 2014 (Cont.)

- The second trend is that iOS and Android are still front-of-mind for developers.
- The third trend is that privacy is a priority for Apps.
The fourth trend is that there will be more apps to play games free of charge.

The fifth trend is that there will be rapid growth of messaging apps.
The sixth trend is that in addition to apps for smartphones and tablets, there will be more and more apps for wearable, in-car, and Internet of Things (IoT).
The seventh trend is that there will be more and more apps for education.

As examples, low-cost Android devices are popular in India and iPad in California.

In addition, parents are also buying computers for their children to use at home.
So, developers will produce more apps for education.

An interesting question is how educational administrators, educational institutions, and individual teachers would decide what apps to use and how to integrate them into existing curriculum.
In addition to commercial developers, children all over the world are learning how to write apps.

In the year 2013, there were many news stories of 13 year-old writing apps.
The eighth trend is that there are a lot of apps are created specifically for an office. Each of those apps is used only by a small group of people in the office it was developed for.
The ninth trend is that there are outdated regulations against sharing apps and those regulations will be modified to suit the apps age.
The tenth trend is that there will be apps to help the users think more carefully before using the apps.

An example is when a mother rushes to take picture of her kids on the stage to share the photo on the web but the kid needs a hug much more than to have the photo on the web.
3. Kids Developing Apps

- In addition to commercial apps developers, kids are learning to develop apps.
An example is published in the Guardians [15] and Spotlight.macfound.org [16] that a 12 year old boy named "Thomas Suarez" from Los Angeles was honored for his app-creating company named "CarrotCorp" which sells four mobile apps he created.
When he was 9 years old, he downloaded an iOS simulation toolkit to learn app-developing skills. Of the four apps he developed, 2 are free and the other two 99 cents each.
Thomas Suarez
A 12-year-old app developer from Los Angeles
The second example is the case of two brothers from Chennai, India, at the age of 11 and 13 [17].

They established a company named "GoDimensions" and produced apps such as "Catch me Cop", "Prayer Planet" and "Color Planet".
Kids Developing Apps (Cont.)

13-year-old Sanjay Kumaran and 11-year-old Shravan Kumaran from Chennai
Their apps can be used on both iOS and Android platforms.

The number of downloads of their apps is more than 20,000 from over 42 countries.
When the two kids started enjoying mobile games, their father encouraged them to create their own games. So, they created their first app for playing game with the knowledge of programming they learned earlier.
The third example is “iRead Monthly” application which was created by a 10-year-old named “Daniel Chao”. He also won “Best App Created by a Fifth Grader”. This app helps the readers to keep track on how much time they spend reading.
Kids Developing Apps (Cont.)

iRead Monthly - August

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If kids can create apps, teachers should be able to create apps also.
The first example is "Corey Walker" who is a speech teacher in Albuquerque, N.M. USA, during the day and an app developer at night [18].
US kids have problems pronouncing "Rs" and "Ss". So, one of his apps shows kids where their tongue should be positioned to say the sound.

Walker's apps can be found by searching "pocket slp". The price is about 5 US$ per app.
The second example is from Spotlight.macfound.org [19]. "Frederick Feraco", a teacher at Columbia Secondary School in New York City, USA, has developed 12 apps,
eight of which are specific to the Regents exams, covering topics ranging from biology to U.S. history. His apps can be found through iTunes.
5. Apps Developed by Students

- From “GettingSmart.com”, it presented the article named “Top 25 Smartphone Apps Developed by Students”. The examples of the apps will be presented in this section.
The first example is “Pulse News Reader” which was designed by two Stanford graduate students. The application gathers all the news from blogs, websites, and social media to be seen in one clear interface.
Apps Developed by Students (Cont.)

MASHABLE!

Steve Jobs at D8 on Flash, iPad and the Post-PC Era

How Music Videos Are Dominating the Web [STATS]

Pre-Order “Toy Story 3” Tickets on Facebook

Facebook and Google Maps Dominate Smartphone App Usage...

Apple Shuts Down Lala: Will Its Replacement Come Next Week?

NYT > HOME PAGE

Prime Minister of Japan Tells Nation He Plans to Quit

Word of Yukio Hatoyama’s planned resignation came after his approval ratings dipped when he reneged on a promise about a U.S. ...

Steven Rattner Fights Effort to Bar Him From Wall St.

Steven L. Rattner is refusing to agree to a government move to temporarily keep him from working on the securities industry ...

Turkish Funds Helped Group Test Blockade of Gaza

When the Free Gaza Movement teamed up with a much wealthier Turkish organization to assemble a tortilla, it was supercharged ...

U.S. Opens Criminal Inquiry Into Oil Spill

Attorney General Eric H. Holder Jr. said criminal and civil investigations were opened into the oil spill and the worst ...

Black Congressman Loses Alabama Primary

Representative Artur Davis had sidestepped the state’s black political leadership in hopes of building a diverse coalition of ...

Half a Day Delaying Checks

Half a Day Delaying Checks

Some states and other ability to on time.

IPAD NEWS HUB

Pulse News Reader is the Best Reader for iPad by Far

Dataviz’ Documents to Go Offers an iPad Productivity App

iPad Sales Reach 2 Million, Says Apple

Apple has just officially announced the latest iPad sales statistics after almost 2 months of being available. How many iPad ...
The second example is “Power Planner” which was created by a student from University of Arizona named “Andrew Bares”. The application aims to let students keep tracks on their assignments, schedules, and even calculate their GPAs.
This app won a prize in “Big App on Campus” contest which was sponsored by Microsoft.
Apps Developed by Students (Cont.)

power planner

**Homework**
- Due in two days
  - Bookwork
    - Math - due 12/8/2011
    - Pg 124 (2, 4, 6-20)
  - Java Program
    - Computer Science - due 12/8/2011
    - Via D2L
  - Essay
    - English - due 12/9/2011

**Classes**
- Math
  - Monday, Wednesday
- Spanish
  - Monday, Wednesday
- English
  - Tuesday, Thursday
- Computer Science
  - Monday, Wednesday, Thursday
- Honors 195K
  - Monday

**Exams**
- On this Friday
  - Spanish Final
    - Spanish - on 12/9/2011
    - In modern languages room, from 6 to 8 PM. St
- On this Monday
  - Math Final
    - Math - on 12/12/2011
    - In Bio West 210, at 8 to 10 AM. On all chapters.
The third example is “Rover” which was developed by two students from Harvard University. This app allows students from Harvard University and University of Cambridge to update news, deals, and events from both universities. The app won the contest named “Big Mobile on Campus Challenge 2009.”
Apps Developed by Students (Cont.)

Welcome to **ROVER**

The ONLY EDU Browser with over 1 Million downloads on iPads in Schools.

Fully COPPA compliant for students' privacy, and CIPA compliant filtering.

**Join Rover’s Elite Teachers Club!**

**Click below!**

**Learning Upgrade**

**Reading Bear**

**Learn to be Healthy**

**Click Here**

To Join Rover’s Elite Teachers Club!
The fourth example is “SeizeTheDay” which was developed by “Ben Gilbert”, a senior student in Computer Science and Engineering at Ohio State University. It helps the users to check their to-do lists easier than before.
Apps Developed by Students (Cont.)
The fifth example is “CrimePush” which was developed by a student from University of New Hampshire School of Law in Concord.

The app allows the user to shake their phones for emergency and alerts for the emergency contact if the user is not checked in on the specific time.
Apps Developed by Students (Cont.)
The sixth example is “iHomework” which was developed by Virginia Tech Student named “Paul Pilone”. This app helps the students to keep tracks on their assignments and projects.
Apps Developed by Students (Cont.)
The seventh example is “Winter Survival Kit” which was developed by two Computer Engineering students at North Dakota State University.
This app is a life-saving app which helps drives who stuck in the wintry conditions to notify their family and emergency personnel as well as providing important safety information.
Apps Developed by Students (Cont.)

Gas Calculator

Gas tank capacity:
12 Gallons Litres

You have about 5.8 Gallons of gas in your tank. You can run your engine for 11.6 hours.

This is only an estimate. Make sure to keep an eye on your fuel guage.

Find Gas Stations Nearby

Winter Survival Kit

I'm Stranded!

Be Ready Be Safe More Resources

About Us Myriad

My Location / Call 911

Gas Calculator

Alert Emergency Contact

Alerts Every 30 minutes

To prevent carbon monoxide buildup, it is important to run your engine as little as possible and to check your exhaust to keep it clear of snow. An alarm will sound every 30 minutes to remind you to turn off your engine. It will also remind you to check your exhaust for snow buildup every 60 minutes.

View/Edit Emergency Contacts

Emergency Phone Numbers

Emergency Policy Numbers
Instead of activating an app from your mobile phone, it is possible now to activating it from your arm. From Topmobiletrends.com [21], a user can get his arm tattooed with the app icon.
App on a Tattoo on the User’s Arm (Cont.)

An App Icon Tattooed on a user's arm
From “Telegraph.co.uk”, it provides the example of App on a tattoo that Nokia has created.
The tattoo on a user’s arm will vibrate when the phone is ringing or the battery is running out. To dismiss, the user has to scratch their arm. It has different communicating sequences for different operations, including messages, emails, or warnings.
7. Education Apps from Apple Apps Stores

- There are so many Education apps from the various Apps Store. From “Edudemic.com” [22], it provides over 100 education apps for iOS platform.

Samples of the top ten education apps will be presented here.
The first example is “Nearpod”. This application allows teachers or instructors to send the content of subjects to student’s devices in interactive formats, including videos, slide shows, quizzes, and websites. Also, the students are allowed to submit their homework via the application to teacher’s device.
Education Apps from Apple Apps Stores (Cont.)
The second example is “Mathcubes: Addition and Subtraction”

This application motivates children to enjoy learning mathematics in a fascinating way.

You will be able to see the improvement in an amount of time they make efforts in the application.
Education Apps from Apple Apps Stores (Cont.)

First, think out the equation matching the Target number

New brain training game
Be more logical and creative!

Everyone of any age who knows the four fundamental operations (+, -, X, ÷) can play
The third example is “Exitticket Student Response System.” This application allows the teachers to respond each student about their progress. Also, it allows teachers to differentiate instruction for each student to work on for their improvements.
Education Apps from Apple Apps Stores (Cont.)

ExitTicket.org

Teacher classroom module
The fourth example is "Vocabla: Learn English Vocabulary". This application provides games and flashcards for the children to practice their English vocabularies.
Education Apps from Apple Apps Stores (Cont.)
The fifth example is “Evernote”. This application supports education which allows the students to take notes, save ideas, as well as creating to-do lists in order to improve the productivity.
Education Apps from Apple Apps Stores (Cont.)

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**To Do**

- LASER CUTTER
- BLOG
  - Features
  - Headers
  - Images
  - Sizing
  - Icons
- IntroText
- MENU ITEMS
- PRODUCT 1
- PRODUCT 2
- DESIGN ELEMENTS
  - Styles
  - Buttons
The sixth example is “Photozeen: improve your photo skills!”.
This is an educational application for photographers to learn tactics to take better photos.
Also, it offers tips and feedback for the users. The users are able to connect with people that have same interests.
Education Apps from Apple Apps Stores (Cont.)

We improve your photos before you take them.

Learn by completing fun and educational quests.
The seventh example is “Explain Everything.” This application works like a whiteboard where the users are able to explore their ideas, taking notes, and record data. All the information can be played back at a later time.
The eighth example is “Coursmos”
This is a micro-learning platform application.
It is suitable for people who don’t have any motivation to study online.
This application will provide a short course. For example, a micro-courses of up to 9 lessons each 3 minutes long.
Education Apps from Apple Apps Stores (Cont.)
The ninth example is “Book Creator”. This application allows the user to create their own e-textbooks. There are many features to add-ons, such as, photos, videos, and audios. The finished textbooks can be exported to iBooks or Dropbox for later use.
Education Apps from Apple Apps Stores (Cont.)

Cecil the Hound

Some dropped their deeds through fields of snow.
Some even came from Mexico
From Tokyo and Kokomo
they came to bask in Cecil's glow.

Across Virginia ridges blue
with ears affrighting, Cecil flew
in hot pursuit of squirrel and fox
through herlocks, pines and tallowicks.

Across Virginia ridges blue
with ears affrighting, Cecil flew
in hot pursuit of squirrel and fox
through herlocks, pines and tallowicks.

The tales from Cecil's glory days
the dog and all of the praise
once astonish and amuse
but now are lost in memory's haze.

Oh his barks and his barks
and his gallant old sounds
are now only echoes
and sighs and sad sounds.

And now these myths
and old folklores
are recipes and snores
The tenth example is “Brainly.com – Homework Help”

This application is a social networking application for group study.

It provides tools that could help with school subjects.
From “Edudemic.com” [23], there are many applications provided for the Android users to download for different usage. There are both paid and free applications provided.

In this section, the examples of Education apps will be given.
The first example is 
“Courses123-Language Learning”. 
This app helps to user 
to study foreign languages including: 
- French, 
- German, 
- Spanish, 
- Italian, and 
- English
Education Apps from Google Play (Cont.)

- It could help you to learn the words and pronunciation.

It provides videos, flashcards, dialogues, and quizzes for the users to practice languages.
Education Apps from Google Play (Cont.)
The second example is “Math Duel: 2 Player Math Game”. This app is a fun educational game which allows two players to compete each other in Math.
Education Apps from Google Play (Cont.)
The third example is “Zeus vs. Monsters – Math Game”
This app is also an educational game where the users need to answer Math question each time they would like to fight for each level. This app encourages children to practice their arithmetic problems.
Education Apps from Google Play (Cont.)

10 BOSSES, 50 LEVELS, ADDICTIVE GAMEPLAY!!

45 + 18
63  62  61
The fourth example is “GS Kids! Preschool Games”. This app is suitable for kids to develop their various skills, including spatial reasoning, visual perception, recognition, and creativity.
The games will include different topics that study in kindergarten, such as alphabets, numbers, shapes, and colors.
Education Apps from Google Play (Cont.)
The fifth example is

“Math vs. Undead: Math Workout”

This app is a combination between zombies game and educational game for the children to enjoy practicing their Math skills.
GUESS THE RESULT AND KILL THE ZOMBIES

7 + 7
15 16 14
The sixth example is “Math Claw Machine: Sweet Games.” This app is a combination between candy claw game and math game to attract people to do math workout in the beautiful scenes.
Education Apps from Google Play (Cont.)
The seventh example is “Screentime Ninja”

This app is suitable for kids who are addicted to games.

Their parents can set up the time for their children to stop playing games.
As the time reaches, this app will block all the current game and math problems will pop-up. Children have to finish all the problems from this app to unblock the device and continue the current game.
Education Apps from Google Play (Cont.)

Two sides of a right triangle are 20 in long. What is the area of the triangle?
The eighth example is “Additio App – Gradebook for Teachers”

This app is developed for teachers to manage their classes.

Also, this app helps teachers managing students’ grades on tablet which is easy for the teachers to access to each student’s progress.
Education Apps from Google Play (Cont.)

Grade students in a limitless gradebook.

Plan your classes using a nice calendar.
9. Concluding Remarks

- As of the year 2014, there are over three million Apps. Kids and teachers are developing Apps. In addition to activating Apps on mobile devices, it is now possible to App icon on tattoo on the user’s arm and activate it there.
So, all parties concerned should search Google to find up-to-date information to study and use for the benefits of themselves, their organizations, their countries, and the world.
Thank You
References


References


References


<http://www.ted.com/talks/thomas_suarez_a_12_year_old_app_developer?language=en>
References

References
