<u>**Educational Mobile Apps:**</u>

<u>**Slide 2**</u>

Good day everybody and welcome to the webinar on educational mobile apps. My name is Aga Palalas. This webinar is to help you determine the key benefits and uses of mobile apps inside and outside the classroom, to identify the main issues to be considered when selecting or designing mobile apps. But what are mobile apps? Basically, they're software that is designed to run on smartphones, regular cellphones, and any hand-held devices; most of them would have a rather narrow focus – which often turns out to be a positive aspect of these programs.

Before we focus on the various benefits of mobile apps, let's have a quick look at the background information and the statistical numbers across the world. Let's start with app downloads globally.

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Yes, there is a plethora of apps out there for those who have the right technology to support those mobile applications and those who actually need to use apps in the particular context they're studying and learning in.

According to Gartner, in 2012, approximately 57.33 billion free apps were downloaded on mobile devices. And by 2017, the download figures for free mobile apps are projected to reach 253.91 billion.

At the same time, in 2012, approximately 6.65 billion paid apps were downloaded via mobile devices. And By 2016, download figures for paid apps are projected to reach 13.49 billion. So we've been experiencing a rapid growth in the area of app development and usage; but not equally so in all parts of the world - whereas in North America almost every undergraduate student reported to be using mobile devices in various aspects of his/her life, the numbers for Asia for example vary greatly.

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This slide illustrates the number of mobile apps regularly used in some selected Asian countries in 2012. In 2012, in Korea and Singapore smartphone users had the largest number of regularly used apps.

The numbers of mobile apps used in Asia are obviously greatly influenced by the proportion of smartphones versus feature phones in the hands of users, which for example in India only about 10% of the phones were smartphones in 2012 while in Korea almost 70% of the handheld devices were smartphones.

According to Jefferies & Company; (2010) – by 2015 the majority of mobile phones used in Asia will be smartphones. As smartphone ownership continues to increase, using apps to access the internet or social networking platforms is also on the rise, as is the usage of mobile apps.

Games seem to be the most popular app category across the Asia Pacific region, with the exception of Indonesia where music and social networking apps are being favored.

In reality, mobile learning is gradually getting popular and most of its share in popularity is related to the affordability and accessibility of mobile phones.

Now, to better understand the context in some developing countries, let's take a closer look at India as an example.

According to the latest statistics, there are 51 million smartphone users in urban India today, an 89% increase from 2012, when there were just 27 million users. The biggest spike is in the youngest age group between 16 and 18 years, where the numbers have gone from 5% in 2012 to 22% of people using smartphones this year, a four-fold increase. This growth is largely driven by the low-cost smartphones that were introduced by both local and international players in India in 2013.

As far as the apps, the five categories dominating in India include cricket, music, news, videos and games. *Facebook*, *Google* and *Whatsapp* lead in terms of the social network apps. Feature phones with Internet capabilities also help the apps and edu-games ecosystem to grow. Feature phones will continue to play a role, a very important role, as they continue to maintain a substantial market share.

When designing for developing countries, we always have to keep in mind what type of devices are in the pockets of our learners.

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We can clearly notice the rise of app culture.

Considering how many apps are available across the various mobile platforms we might be surprised why they are not used for learning and teaching as often as, for example, other online learning tools. There is a number of reasons for the rather slow adoption of mobile educational apps, especially in formalized teaching … but I'd risk a statement that one of the main reasons would be the fact that not too many of the apps available in the app stores today are designed by expert instructional designers aiming at any specific learning outcome. Another significant reason would be the fact that mobile apps are designed to be a personal tool, therefore it might prove to be a bit challenging for the teacher to select an appropriate app and incorporate it in curricular activities for the whole classroom. The good news is that there have been a variety of customized educational apps developed at various educational institutions and other organizations. Research reports that many have been successfully used not only for teaching and learning but also for performance support, administrative functions and other learning supports. With mobile devices connected to the school's system and to the learning management systems, such as Blackboard for example, students can use such custom-made, in-house designed and developed apps, to access learning materials, assessments, to look at their grades, to access new projects, collaborate, as well as find and read books at their convenience from any location.

Now, with quarter of a million educational apps waiting to be downloaded, there is a lot to choose from. BUT over 25% of the downloaded apps are opened only once.

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I suppose they were opened only once because they turned out to be not exactly the tool that the user was looking for, so it's crucial that students are given opportunities to use appropriate tools for appropriate learning activities and learning outcomes. We have to look at if the learning takes place in the classroom, outside of the classroom, a mix of both spaces, if it's formal, informal learning that we're trying to support with the app. Are we aiming at synchronous or asynchronous communication or

anything in between? These are spectrums that are very important to consider when we are looking at selecting or designing the right apps. Also, is this app meant for individual learning activities or are we aiming more at collaborative learning and then let's consider the various degrees of transactional distance as well?

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There is a myriad of apps to choose from. There are quite a few categories that we can look at. These are not exclusive categories, there are many more, but the most valuable ones to our students are the ones that help them access resources. For example, an in-house built mobile library app, those that support coordination such as *Twitter*, communication using *Facebook* apps or simple SMS-based apps, collaboration by access to social networking platforms and apps like Google apps, for example. Those that help student capture and integrate data, starting with a very simple tool such as camera or voice recorder. And very popular amongst students' productivity apps such as calendars, organizers, campus maps, notifications, reminders, not to forget the built-in tools such as GPS, once again, note takers, voice recorders and all the various apps. They allow students to capture data ad hoc, take notes and look up the information that they're looking for. All of these are very convenient and students will definitely benefit from using these built-in and custom built apps. And what are the benefits of such mobile apps?

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First of all, they are a gateway of even a shortcut to a selection of e-learning tools, such as blackboard, *Twitter*, E*vernote*, or even *Facebook*. Then there are stand-alone learning tools designed with a specific purpose in mind. They focus on one particular learning or training goal and often aim at supporting performance in a specific setting or organization. Often they are customized to unique needs and environment. These apps become a dedicated space for the particular learner with a particular interest or learning goal activity. Then they offer improved flexibility and convenience. Easy accessibility allows the learner to get it at the exact moment when it is required, it can provide leaning materials and educational content at the point of need – with just a few clicks – it's designed for a specific platform and is even more user friendly and convenient than other e-learning, online learning tools. Also, apps offer user control over content, at least they should. They should be customizable to the user's preferences and needs. Good educational apps also invite user input, they encourage interaction with the content, encouraging users to create their own materials, their own content. Such apps can often be personalized and are often more relevant personalized learning, potentially leading to higher engagement levels.

Users might download a variety of apps but ultimately they use only those that offer benefit and fun. For example well-designed learning activities, quizzes and edu-games; in addition people reach for apps which offer convenience and shortcuts to information and to learning. When asked about what their favourite learning app, many of my students mentioned apps which would remind them of upcoming tests or assignments or apps that help them find the fastest way to the campus cafeteria, for example. People are motivated to engage when they can see an immediate benefit to using a particular tool or particular app.

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Affordability would be another benefit of educational apps – a majority of apps in app stores are available to users in a free version; if they're not, many good apps cost as low as 99 cents or $1.99. This is not necessary true if you decide to develop a customized app for your organization, though. At the college where I was teaching we addressed that problem by engaging our own design and programming students - as part of their course curriculum they designed and developed quite a few apps, for example, an scavenger hunt app orienting new students into the services and supports available at the college.

As far as digitized resources (e-books) - schools may be able to reduce, or with time even eliminate, the use of heavy textbooks, workbooks and notebooks, offering savings and convenience for both the organization and the students. Once again students at our college agreed that they would rather spend money on e-books that the same textbook in a print version.

Gamification is a separate topic that deserves in-depth discussion; but I'd like to signal here the importance of incorporating some of the principles of good game design into engaging applications for learning. Research reports substantial benefits to the usage of appropriate gamification elements in the design of educational apps…as long as the designers make sure to focus the app on the learner objective and not, for example, the character development or rich animations.

For those that have access to the latest smartphone or tablet technologies, apps can offer a window into the latest mobile developments. App designers and mobile learning content providers often showcase the latest technological solutions which we can then apply to our own designs when the time is right.

Finally, I should emphasize the significance of mobile apps in our everyday informal learning. Considering the development of mobile apps and their design, we will increasingly reach for these tools in our pockets whenever we need to look up a piece of information or ask someone a quick question. Likewise, we will witness an increase in the number of apps educational institutions and other organization are going to integrate into their current blend of learning methods.

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But not all educational apps are designed with true educational purposes in mind. Educators, designers and other users should scrupulously evaluate mobile apps before incorporating them into their learning or teaching practice. Let's not forget that 25% of the mobile apps are downloaded and never opened again.

Mobile apps should be assessed for both their overall usability and quality as well as learning value. Are they the right solution in the cultural and physical context? Are they available and are they affordable?

Currently there are no common standards to assess educational apps and although there are some very useful reviews available on the internet, the reviewers are not able to keep up with the rapidly growing number of apps. So, next I'm going to share with you some criteria for educational app assessment based on research into the issue as well as my own experience as an educator and app designer.

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These are the app assessment criteria that I propose:

First, educational value and learning connection: Is there a learning goal?

Does it offer meaningful reinforcement and extension of learning activities and objectives that are part of the curriculum?

Can it be integrated seamlessly into the learning setting?

Does it fulfill a unique learner need that other tools would not meet equally well?

Does it apply any learning-teaching framework?

Is there focus on learning or maybe just playing a game?

Is the content and information validated, is it free of bias?

Does it encourage creativity and reflection or in other cases – repetition and spaced learning or whatever learning approach it follows?

How about the levels of engagement and interactivity:

Is it age-appropriate?

Are there opportunities to interact with the peers, content, and experts?

Are there elements of communication worked into the app?

Is there a variety of learning activities an award system built-in?

Are graphics appealing and do they enrich the learning content?

As far as authenticity: are students engaged in real-life learning problems that result in new knowledge or skill creation?

Is feedback provided and is it of sufficient quality and detail? Is the feedback informative and does it teach; is it constructive and timely; does it motivate?

Are there elements of peer-evaluation and self-evaluation incorporated as well?

In terms of user-friendliness:

Is the app intuitive and easy to navigate? Does it provide any tutorials?

Can learners use it independently?

Can the app be customized and personalized thru the settings in the app?

Are there setting available that allow for individualized learning experience?

And very important, does it monitor progress?

Is it easy to use and does it provide analytics on all the skills and learning objectives being practiced?

(A good education app should frequently remind the learner of his/her progress toward the target learning goal.)

Are there any security and privacy issues with using these apps?

These are only some of the questions, but these are the very important ones.

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There are quite a number of issues to be tackled when considering developing or selecting mobile apps, especially educational mobile apps. I've covered a few of them in this webinar, but other issues to consider would be: should I purchase or develop an app for my organization, would it be a native app or web-based app, should I be coding it from scratch or using tools for app development such as PhoneGap, should it be html5?.. and quite a number of other considerations that I hope you're going to explore through your in-depth research of educational mobile apps. I hope I've encourage you to look a little bit in more depth into all the various issues that are related to using mobile apps for teaching and learning.

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And through this slide, I'd like to share a few mobile app resources with you. Please note the website that created to assist educators looking for mobile apps, as well as some examples of mobile assisted language learning apps that I shared with you through my slide-share presentation that would be the last item on this list.

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I hope you enjoyed this webinar on educational apps and I'm inviting you to join me in other webinars on the educational aspects of mobile learning.

Thank you, and have a good day.