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Mobile Application II

Educational Advances Through Mobile Applications

Educational Technology

Abstract

Technological advances in mobile applications directly affect the growth of education. Mobile devices increase the engagement of young learners. Mobile applications can come in various different sizes, layouts, functions and continue to increase information gain. The ability to seek knowledge can be done anytime and anywhere. The progress of learning is important and needs to be monitored to truly comprehend topics.

Introduction

The field of technology has grown tremendously in the previous years and so did education as an additional outcome. More and more teachers are ditching the day-to-day textbook teaching and implementing technology into the curriculum. This advancement has started with large TVs to desktop computers to laptops and lastly to mobile devices. The students are better engaged and are taught how to manipulate and manage the technology to benefit their own learning. Technology has given students a vast horizon of learning mediums to choose from that fit their learning types. Every day new applications are made to make the most of the functionality of mobile devices. If one were to be always on the move then there's no problem, learning can be done anywhere and anytime on mobile devices. Applications allow the user to monitor their learning progress and standing. The end goal of learning a topic is to comprehend and apply that new-found knowledge. Technology gives us that capability, allowing the best learning environment on one's own time.

Engagement

The emotion of interest is an important key in education. The more interested in a topic a student is the more inclined, attentive, curious they become. These types of students would want to know more, they will analyze any small detail, and ask questions after questions. In the article *Engaging and Supporting Mobile Learners*, it states that "The group were observed to be remarkably focused and calm . . . They were far more focused and gave up to 2 hours of time to the devices when it is normally difficult to focus them for 15 minutes." The learning process lasted 800% longer. Mobile devices are an advantageous tool that gives the user easy access to the topics they want to learn. A quick search in google or AppStore can bring the user dozens of possibilities. It is up to them to try and find the best learning environment that fits best.

What's there to learn?

Almost everything. Mobile apps can be used to learn educational topics or be used by companies to train employees. For example, the user can learn basic arithmetic, how to play a sport, how to craft, how something is made, or how the body and mind work. The number of topics to learn across the internet are unfathomable, just like trying to count all the stars. The search for knowledge can become increasingly deeper. An example of this is an interest in computers. They would learn what it is (calculating device, medium to transverse the internet), how it works(languages, functions, codes, binary) and what's it made of (hardware, components, electricity, metals). Where each piece can be researched further. Mobile devices give the user all of the various information at their fingertips. The benefits are endless.

Catering to the Learner

The learning environment is ever-changing and is dependent on the user to choose the best learning medium for them. Before technological devices, students were to learn through chalk-and-talk or textbook methods. However, with mobile devices, learning can be done and supported by Communication, Games, Multimedia, Productivity, Travel, and Utilities. The mobile app browser Safari allows users to surf the internet to sites like Quora or Reddit and communicate with others who are interested in the same topics. In the case

study *MOBILE TECHNOLOGIES IN TEACHING ENGLISH AS A FOREIGN LANGUAGE IN HIGHER EDUCATION,* the study uses the mobile app Instagram to have foreign language students learn English. The app had over 500 million active users in June 2016. The users were from around the world and shared a variety of information and resulted in no lack of content. This app allowed the student to communicate with other users and watch videos that they could rewind. Games play a large role in mobile applications. There are easily noticeable educational games that teach basic reading and math but even the classic mobile game Angry Birds can induce learning. In the article *Mobile games and science learning,* it says that "Angry Birds supports learning of basic physics principles such as speed and velocity, making observations and hypothesis testing." This learning occurs when the user is using the slingshot to launch the birds. The results stated that the 5-year-old participants had increased learning in how force affects projectile motion. Mobile applications have abundant tools that can support learning. The calendar and productivity app can teach users how to manage their time more efficiently. The calculator app can help solve complex computations. Diary logging applications can be used to log newly learn information or notes. There exist apps that that function the same way as others yet provide different or more advanced tools. For instance, social media apps Facebook and Instagram have distinctively different looks and feel. The mobile app can cater to many needs and uses which can encourage and assist learning.

Making the most of Mobile Functionality

The hardware and software of mobile apps are continuously being improvised. Mobile devices have many functions such as a camera, video recording, touch screen, microphone, facial recognition and tracking, and GPS. A popular app for virtual classroom use is Zoom. The mobile application Zoom uses a microphone and video camera. This enhances the learning environment in the classroom due to COVIDs restrictions. Mobile devices are obtaining higher quality cameras with many additional capabilities. This gives the user ability to create better videos and movies close to those of film-grade equipment. The advancement of the device directly boosts the advancement of applications.

Anytime and Anywhere

Thanks to mobile devices the teaching and learning do not have to take place in the classroom. Learning can take place at the user's convenience. Any small amount of time can be used to advance one's knowledge. The mobile application SoloLearn can be downloaded and used with or without wifi. It allows the user to learn Swift, Java, or other types of computer languages. The practice with such topics can be done during a break, at the bus stop, or between classes. This allows for newfound studying or enhancing other skills. The importance of applications such as SoloLearn is that the learning "classroom" is one click away. Collaboration is possible and monitoring your progress is one click away. The many teachers and tutors are vastly available. In the article *Mobile learning = collaboration,* It says " Collaborative learning allows for a more cohesive, social constructivist style of learning." So although mobile learning removes the physical social interaction, it allows mobile learning to happen anywhere and may be beneficial to users who better learn on their own.

Monitoring your Progress

True learning takes place through conceptual understanding and application of the theoretical info. Therefore it is important to maintain and monitor the user's progress. In individual learning, the applications have the capabilities to monitor your progress and show your own efficiency. There exist mobile applications that allow teachers to create a classroom for students to join and learn while also giving the teacher the ability to monitor their work. For example, in google classroom, the teacher is able to give homework, classwork, resource notes, quizzes, and exams. Mobile applications can be beneficial support tools for teachers.

Conclusion

Education can be supported by mobile applications in many ways. The applications are created with different formats and capabilities that cover can cover many needs that the user requires. Applications make use of their device's capabilities to give the best possible environment and necessities to the user. The user's learning can take place at their own

convenience, time, and place. Learning takes place over time and needs to be monitored and tested to truly understand any given topic.

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