Mobile applications for Education-An Overview

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Abstract: Mobile apps have revolutionised device use. Smartphone apps accomplish practically anything. Mobile apps have transformed food ordering and gaming. Apps power cellphones and tablets. Google Play and Apple App Store sell these. Apps play games, order meals, stream music, and read news. Mobile education apps are growing. Apps teach youngsters. Mobile phones allow youngsters access educational resources, attend online classes, and communicate with professors and peers. Learning efficiency, effectiveness, and engagement improve. Mobile apps engage pupils. Some educational mobile apps let students watch videos, review lessons, and work independently. This article discusses elaborately about Mobile Applications for Education

Keywords: Mobile applications, Education

Introduction

Mobile applications have revolutionized the way people use their smartphones, tablets, and other devices. In the past, users were limited to the functions and features of their devices, but with the advent of mobile applications, users can now do almost anything they want on their devices. From ordering food to playing games, mobile applications have made it possible for people to engage with their devices in a whole new way. Mobile applications are software programs designed to be used on mobile devices such as smartphones and tablets. They can be downloaded from app stores such as Google Play or the Apple App Store. Mobile applications can provide users with a variety of functions, such as streaming music, playing games, ordering food, reading news, and more.

Mobile applications are becoming increasingly popular, as more people are using their mobile devices for a range of purposes. As such, mobile application development has become a highly competitive industry, with developers vying to create the most innovative and useful apps. When creating a mobile application, developers must first consider the device they are creating it for. Different operating systems have different requirements, and developers must ensure that their app meets the requirements of the device they are targeting. They must also consider the user experience, as a poorly designed app can be difficult to use and will be unlikely to be successful.

Once the app has been designed, developers must then create the code that powers the app. This involves using a programming language such as Java or Swift, and then testing the app to make sure it works correctly, then, it must be published to an app store, such as Google Play or the Apple App Store. This can be a lengthy process, as the app must first be approved by the app store before it is available to download.

Mobile applications can be a great way for businesses to reach their customers. By creating apps that are useful and engaging, businesses can build relationships with their customers and create a stronger brand presence. Additionally, businesses can use apps to provide customers with discounts and special offers, as well as to collect valuable data about their customers. Mobile applications are here to stay, and they are only going to become more popular as technology advances. With the right development team and the right concept, businesses can create apps that will be successful and beneficial for both the business and its customers.

Development of Mobile Applications

The development of mobile applications has become a major industry in recent years, with many businesses and organizations investing heavily in the development of mobile apps. This is due in part to the increasing popularity of mobile devices, which are now the most commonly used computing platform in the world. According to the International Data Corporation (IDC), global shipments of smartphones and tablets reached 2.2 billion units in 2016, and are projected to increase to 2.5 billion units by 2020.

The growth of the mobile applications industry has been driven in part by the increasing sophistication of mobile devices and the development of more advanced software platforms. This has allowed for the creation of more sophisticated apps that can provide a wide range of functions and services, from entertainment and gaming to productivity and business applications.

Furthermore, the proliferation of mobile devices has made it easier for businesses and organizations to reach their customers and clients in real-time. This has enabled businesses to use mobile apps to deliver more personalized services, such as banking and shopping. Mobile apps have also become an important tool for marketing and customer engagement, with businesses using them to stay in touch with customers, provide coupons and discounts, and offer loyalty rewards.

The growth of the mobile applications industry has also been driven by the increasing availability of mobile app development tools and platforms. These tools allow developers to create apps faster and more efficiently, and have helped to reduce the cost of app development. Additionally, the growth of cloud computing and mobile backend services has made it easier for developers to integrate data and services from other sources, such as web services, into their apps.

The emergence of new and innovative business models, such as the freemium model, has helped to drive the growth of the mobile apps industry. In this model, users can access a basic version of an app for free, while advanced features and services are available as paid upgrades. This has enabled businesses to monetize their apps more effectively, leading to increased revenue and greater success. The mobile applications industry has experienced tremendous growth in recent years, driven by the increasing popularity of mobile devices, the development of more sophisticated software platforms, the availability of app development tools, the emergence of new business models, and the proliferation of cloud computing and mobile backend services. This has resulted in a wide range of apps that can provide a wide range of services, from entertainment and gaming to productivity and business applications. As the mobile applications industry continues to grow and evolve, it is likely to become an increasingly important part of the global economy.

Mobile Applications for Education

The use of mobile applications in the education sector has seen tremendous growth in recent years. Mobile applications have opened up new avenues for learning, making it easier and more convenient for students to access educational resources. With the increased usage of mobile phones, students are now able to access educational materials, participate in online classes, and interact with their peers and professors. This has enabled the learning process to be more efficient, effective and engaging.

The benefits of mobile applications for educational purposes is wide and varied. On a basic level, mobile applications can provide access to educational resources and materials. With the help of these applications, students can look up definitions, find video tutorials, and access course materials, all from the comfort of their own device. Moreover, applications can provide students with an easy way to track their progress, allowing them to better understand their strengths and weaknesses.

In addition to providing access to educational resources, mobile applications can also be used to facilitate online classes. Many applications offer real-time video and audio communication, allowing students to participate in lectures and discussions. This allows students to interact with their professors and classmates in a more personal way, creating an engaging and collaborative learning environment. Moreover, mobile applications can also be used to provide interactive activities and quizzes, allowing students to test their knowledge and monitor their progress. Through these activities, students can better understand their

understanding of the material, while also providing an engaging way to learn. In addition to providing interactive activities, mobile applications can also be used to provide personalized learning experiences. Through adaptive learning, students can receive individualized instruction, allowing them to progress at their own pace. This helps to ensure that all students are able to get the most out of their educational experience. Mobile applications can also be used to provide access to educational games. Games can help to reinforce important concepts and skills, while also providing an enjoyable and engaging way to learn.

Mobile applications are playing an increasingly important role in the education sector. With the help of these applications, students are able to access educational resources, participate in online classes, and receive personalized instruction. Furthermore, mobile applications can also provide interactive activities and educational games, helping to reinforce important concepts and skills. As such, mobile applications are an invaluable tool in the modern education system.

Effective Educational Mobile Applications

Mobile applications are becoming increasingly popular among students, as they allow them to access content and interact with it in a more convenient way. This can be particularly beneficial for those who are unable to attend physical classes or lectures. For example, some educational mobile applications allow students to review lectures, watch videos, and complete activities on their own time (Bogdan, 2017). This provides students with more flexibility and allows them to learn at their own pace, which can be beneficial for those who have busy schedules or difficulty attending classes.

Mobile applications can also be used to foster collaboration and communication among students, as they can be used to share notes, documents, and other materials (Kirby & Oblinger, 2020). This can be particularly beneficial for students who are studying online or in remote areas, as they are able to keep in touch with their peers and have access to the same materials and resources. Additionally, many educational mobile applications offer students the ability to access online forums and discussion boards, which can be used to discuss coursework, ask questions, and receive feedback from their peers and instructors (Tomczyk et al., 2019). This can be a great way for students to learn from one another and collaborate in a more productive way.

Mobile applications can also be used to provide students with more personalized learning experiences. For example, some applications use adaptive learning technology to provide students with tailored content, allowing them to focus on topics they are struggling with or need to review (Shah & Kumar, 2017). This can be beneficial for students who are trying to learn a new subject or are attempting to master a particular skill. Additionally, some applications offer students the opportunity to take assessments and receive immediate feedback, which can be used to identify areas of improvement and track progress over time (Gardner et al., 2018). Mobile applications can also be used to promote engagement and motivation among students. For example, some applications offer rewards and badges for completing activities or tasks, which can be used to encourage students to stay motivated and engaged (Chong, 2017). Additionally, some applications allow students to monitor their progress and provide them with feedback, which can be used to motivate them to continue their learning (Gardner et al., 2018).

Popular Educational Mobile Applications

In the era of digitalization, mobile applications play an important role in education and provide an innovative way to learn and access educational content. Mobile applications have enabled students and educators to access, process, and share educational information anytime and anywhere. It has also enabled students to gain new knowledge and skills and to develop problem-solving and critical thinking abilities. With the availability of a wide range of educational mobile applications, it has become easier for students and educators to access educational information and resources, thereby enhancing the learning experience.

The educational mobile applications, such as Khan Academy, Duolingo, Quizlet, and Brainscape, are being used by students and educators to gain knowledge and learn new skills. These applications offer various learning activities, such as quizzes, games, and videos, which can be used to supplement traditional learning

methods. Educational mobile applications have been developed for different age groups and for various subjects, such as mathematics, science, and language.

Khan Academy

Khan Academy is a popular educational mobile application that offers a wide range of learning activities. It is a free and open source platform that provides educational resources, such as video tutorials and practice exercises, to students and educators. Khan Academy offers a personalized learning experience by allowing users to customize their learning path and track their progress. It also provides detailed explanations and stepby-step instructions to help users understand the concepts. Khan Academy also offers a rewards system, which encourages students to keep learning and stay motivated.

Duolingo

Duolingo is a language learning mobile application that can be used to learn different languages, such as Spanish, French, and German. It offers a variety of activities, such as flashcards and quizzes, to help users learn a language in a fun and engaging way. Duolingo also offers a rewards system, which encourages users to keep learning and stay motivated. Additionally, it provides personalized learning plans, which are tailored to the user's level of knowledge and learning needs.

Quizlet

Quizlet is an educational mobile application that helps users learn and review different topics. It offers various learning activities, such as flashcards, quizzes, and games, which can be used to supplement traditional learning methods. Quizlet also offers a personalized learning experience by allowing users to customize their study sessions and track their progress. Additionally, it provides detailed explanations and step-by-step instructions to help users understand the concepts.

Brainscape

Brainscape is an educational mobile application that helps users learn and review different topics. It offers various learning activities, such as flashcards, quizzes, and games, which can be used to supplement traditional learning methods. Brainscape also offers a personalized learning experience by allowing users to customize their study sessions and track their progress. Additionally, it provides detailed explanations and step-by-step instructions to help users understand the concepts.

Conclusion

Educational mobile applications can be used to enhance the learning experience for students, providing them with more flexibility, collaboration opportunities, personalized learning, and motivation. As technology continues to advance, mobile applications are becoming increasingly popular among students and can be used to provide them with an enhanced learning experience. The educational mobile applications discussed in this article provide an innovative way to gain knowledge and learn new skills. They offer various learning activities, such as quizzes, games, and videos, which can be used to supplement traditional learning methods. The educational mobile applications discussed in this article, such as Khan Academy, Duolingo, Quizlet, and Brainscape, have enabled students and educators to access educational information and resources anytime and anywhere. These applications have revolutionized the way students and educators access and process educational information, thereby enhancing the learning experience.

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References

Ahmed, A., & Rahman, S. A. (2017). Mobile learning: A review. International Journal of Emerging Technologies in Learning, 12(1), 5. https://doi.org/10.3991/ijet.v12i01.6939

Bogdan, C. (2017). Benefits and challenges of using mobile applications in education. International Journal of Emerging Technologies in Learning, 12(2), 28-35.

Chong, S. (2017). The effects of gamification on student engagement in online learning environments. Journal of Educational Technology Systems, 45(3), 285-303.

Gardner, S., LeBlanc, R., & Stapp, R. (2018). The effectiveness of mobile applications in education. International Journal of Mobile Learning and Organisation, 12(3), 158-179.

Goodall, K. (2018) "The Benefits of Mobile Applications in Education," Common Sense Education,.

Grinberg, D. (2019)"The Benefits of Mobile Learning for Education," eLearning Industry,.

International Data Corporation. (2017). Worldwide Quarterly Mobile Phone Tracker. Retrieved from https://www.idc.com/tracker/showproductinfo.jsp?prod_id=11

Kaur, M (2017) "The Use of Mobile Applications in Education: A Review," International Journal of Advanced Computer Science and Applications, 8, 10.

Khan, S. (2016). Educational mobile applications: A review. International Journal of Advanced Computer Science and Applications, 7(7), 230–235.

Kirby, J., & Oblinger, D. (2020). MOOCs: A guide for educators and learners. EDUCAUSE Review, 55(4), 54-66.

Ling, C. (2017). What is the Freemium Business Model? Retrieved from https://www.investopedia.com/articles/investing/031715/what-freemium-business-model.asp

Mann, E. (2016). The rise of mobile learning: Opportunities, challenges, and implications for education. Education Sciences, 6(3), 38. https://doi.org/10.3390/educsci6030038

Mishra, S., Sharma, R., & Bisht, R. (2019). Mobile learning: A review of educational mobile applications. International Journal of Educational Research, 24(3), 895–903. https://doi.org/10.1016/j.ijer.2019.07.002

Mohamed Basheer, K. Venkataraman, S. (2021) D.El.Ed., Students' Perceived Assistance of Mobile Phones for Course Ubiquitousness, International Journal of Creative Research Thoughts (IJCRT), 9(11) 677-680.

Murphy, L. (2016). Mobile Apps: The Future of Business? Retrieved from https://www.entrepreneur.com/article/274841

Rouse, M. (2016). What is a Mobile App? Retrieved from https://whatism.com/mobile-app.html

Schubert, C. (2017)"The Impact of Mobile Apps on Education," International Journal of Educational Technology in Higher Education, 14,1.

Serna, D. (2019) "The Benefits of Mobile Applications for Education," Study.com,.

Shah, A., & Kumar, S. (2017). Adaptive learning applications: A review. International Journal of Emerging Technologies in Learning, 12(2), 35-41.

Shah, M., & Sethi, B. (2018). Mobile learning: A review of educational mobile applications and its challenges. International Journal of Innovative Science and Research Technology, 3(7), 968–974.

Statista. (2017). Number of Mobile App Downloads Worldwide from 2010 to 2020 (in billions). Retrieved from https://www.statista.com/statistics/276623/number-of-mobile-app-downloads/

Tomczyk, A., Wolska, A., & Czajkowski, K. (2019). Mobile applications in education: Advantages and disadvantages. International Journal of Interactive Mobile Technologies, 13(2), 1-9.

Venkataraman S (2018), College students' Educational usage Mobile phones, International Journal of Communication and Media Studies, 8(4), 55-58.

Venkataraman S (2021) Effectiveness of using Mobile Based Improvised Social Media Platforms for Teaching and Learning of Higher Secondary Students, Ajanta, 10(4) 139-145.

Venkataraman Sand Rajkumar J (2019), Features of Android Mobile Application for B.Ed., Curriculum Execution, Journal of the Gujarat Research Society, 21 (9), 160-164.