American Express uses expert systems to process unusual requests. The system, called Authorizer's Assistant, can process requests much quicker than the customer service representatives manually, and has decreased the bad guess rate. The rate was originally 15 percent error, but now has decreased to 4 percent with the installation of the system.

Security Trading and Portfolio Analysis

Morgan Stanley and Rockwell International are just a few of the investment firms that use expert systems. With the rule base in effect, the system can easily evaluate rate of return and risk exposure. Composing a portfolio manually can be time consuming, but the expert system can do it very quickly and generate consistent results. Morgan Stanley announced an increase of $1 million profit after the installation its system[8]. Manufacturer's Hanover Trust Co. has its own strategic technology and research group called STAR. The company has implemented six knowledge-based systems and plans to implement three more in the near future. The company cites that six out of every eight deals generated by the system is successful. Insurance companies also use expert systems. A study shows that 12 out of 28 of the largest insurance companies in the U.S. have developed expert systems. New York University has designed the Actuary Consultant System (ACS) to assist actuaries with evaluating risk on life insurance policies and disabilities. Lockheed Corporation has developed the Medical Charge Evaluation and Control (MEDCHEC) to check medical claims submitted. Financial planning services have typically been very costly. Expert systems reduce the costs of these services making the planning process quicker, easier, and more consistent. Employers are now able to offer this service as a benefit to their employees much more easily than before. Financial plans can help individuals with insurance, retirement, investments, income taxes, estate planning, and cash and debt management. The plans have general rules and should be flexible enough to accommodate personalized options, risk attitudes and individual preferences.

Expert systems are not only help us, but acting as a smart human full knowledge and give us advice in many areas such as answers for decisions, processes and tasks that are repetitive and thee hold huge amounts of information. In addition to these, they absolutely minimize our employee training costs in a comparison with simple occasion to which intelligent systems alternative are. However, there are also disadvantages to expert systems like no common sense used in making decisions and lack of creative responses that human experts are capable of. Thus, all of specialists in this line of occupation share responsibility for improvements of expert systems so that perfect performances will be given in a future.

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UDC 004

WAYS OF INVOLVING MOBILE APPLICATIONS AS A FUNCTIONAL TOOL IN SELF-EDUCATION

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Nowadays, in the age of information technologies, it is hard to imagine our lives without computers and mobile phones. New technologies are involved in all areas of our life activities: health, security, education. And every day they are developing and becoming more powerful and portable. One of the most popular mobile device is smart phone. It is because smart phone is powerful as an average computer but at the same time it has a very small size since it is a mobile phone. So we can say that a smart phone is a powerful device that can fit in a pocket and weight around 500 grams. That is why smart phones became so popular.

Today, we cannot only make some calls like we did with old-fashioned mobile phones, but also we can take pictures and videos, listen to music, watch movies, surf the internet, read a book or newspaper, and so on. Smart phone abilities aren't restricted only with those functions that where inside when you're first bought it, but also can be extended by applications that can be bought in official online application shops such as AppStore for iOs apps and Play Market for Android apps.

A mobile app is a software application developed specifically for use on small, wireless computing devices, such as smartphones and tablets. Mobile apps are designed with consideration for the demands and constraints of the devices. [1]

There are many categories of applications: games, applications for health, education, the expansion of the mobile device functionality, work with documents, work with your media, social networks, as well as the official application of large organizations. To download the application you need no more than 3 minutes. Developers also have to consider a wide array of screen sizes, hardware specifications and configurations because of intense competition in mobile software and changes within each of the platforms.

Developing applications for mobile devices requires considering the constraints and features of these devices. Mobile devices run on battery and have less powerful processors than personal computers and also have more features such as location detection and cameras.[2]

In today's competitive world education is necessity for people after food, clothing, and shelter. Education is a basis for a better life and sign of freedom. That is why getting a new knowledge is so much important. Learning does not only happen inside the four walls of the school, it can happen anywhere: on a bus, in the library, in the living room. Multi-functionality, portability, and connectivity are opening doors for learning. No wonder that students are using smart phone technology to help them in education.

There are really a lot of ways to learn using a smart phone. Mobile learning is a gateway to tools and resources. It makes learning more personalized and creates bridges over the gaps between teacher and student. The great thing is that it gives users access to big amount of information anywhere, anytime.

Mobile learning opens the opportunity to learn all the time. Students love mobile technology and use it regularly in their personal lives. It therefore is no surprise that young people want to employ mobile devices to make education more engaging and personalize it for their particular needs.

Education should become an individualized and year-round activity, not just something that takes place in bulk form within schools between 8:30 a.m. and 3 p.m. Monday through Fridays from September to May when schools are in session. The content should be and configured in such a way that students can follow their learning passions.

Digital technology helps teachers think about new classroom models. Students can take more responsibility for their own learning, while teachers can focus on more advanced problem-solving and building critical skills for those in their classrooms. The result will be an educational collaboration that is more satisfying for students and teachers. [3]

Today smart phones are widely used in the field of self-education. There are many applications for the study of individual disciplines. Currently, the most popular applications are those for learning foreign languages, and musical instruments. You just have to download or buy an application from online store and start exploring the new content. It's very simple and accessible to everyone. That is why, this way of learning is actively gaining popularity.

The relevance of education with the help of mobile applications, instead of their computer counterparts, is that the number of mobile phone owners increasing every day. According to forecasts, in the next 5 years, smart phones will surely lead the market of hi-tech gadgets, and their share will reach 74.1% by 2018. At the same time the popularity of personal computers, laptops and tablets might reduce. [4]

As a result of digital-world statistics for August 2015 of WeAreSocial portal, there are 7.357 billion people over the globe and 3,734 of them are active users of mobile devices, which is half the world's population. [5]

If we talk about the system of learning through a mobile application, it often pretty similar: generally a block of knowledge that the user intends to learn, is divided into many small pieces for a better perception of the material, and is accompanied by practical exercises and tests. Small pieces of information are also divided by levels of difficulty, from simple to complex. And sometimes the transition to a more complex level is based on performance of tasks, the correct answers on a test, or score.

It is possible to learn any other subject with the help of mobile applications. One of these subjects can be computer science. One of the units in the study of computer science is the study of programming languages.

For those who wants to learn the basics of programming on their own, in the internet can be found video tutorials, computer applications or websites specifically designed for learning. But to learn this way, the user needs a computer and internet access. That might be a little expensive if a person has no computer. According to statistics the number of computer users is 2 times less than mobile users. That is why it is suggested to create the mobile applications for learning the programming language.

Learning programming is complex and time consuming process. Therefore, it is important to properly organize everything so that student do not lose interest in the subject and will have a desire to complete the course. Everyone has a specific motive for learning programming, but it's very easy to lose the desire and interest because of large amount of dry and monotonous flow of information. That is why it is so much important to share a big amount of information into lots of small small pieces, and reproduce the information in an interesting and entertaining form.

Passage of tasks can be accompanied by visualization of the progress of a student so that student could see his promotion and thus motivated by this. As another option, you can put a picture in the form of a puzzle, where every piece of puzzle will be revealed when task is completed successfully, and by the end of the course there would be revealed the whole picture. You can also set some encouragement for their work in the form of evaluation points or bonuses. The goal off all these actions is to motivate student to continue his learning.

Next thing to consider is the learning process itself. Programming is based on the practice. Therefore, there must be given special attention to practical assignments. Practical tasks need to be consistent. For example, the first program might be writing students first program that writes text «Hello, World!», in the next program student should write longer text, and so on. Education should not be too predictable and monotonous. So, as an addition to practical tasks, it is good to use different types of exercises. There can be also added mini-games on the theme to switch attention of the brain so that it can relax a bit.

Do not forget about the multimedia components in an application. Since in some cases, the simultaneous effect of the graphics, audio, photos and video can significantly increase the effectiveness of training. It is experimentally proved that through the oral presentation of the material, the student takes about 1000 pieces of information per minute, while with the help of eye perception, this figure rises up to 10,000 units per minute. [6] Therefore, video and audio materials,

may also supplemented in the application, but in this case, the application might weight a lot more and take some space in the phone memory.

Of course, the mobile application is not seriously considered as the main source of knowledge, but it is quite good as an auxiliary resource.

In conclusion, there given a list of the positive aspects of the use of mobile applications in teaching:

- Available to any owner of smart phone;
- Suitable for self-study;
- Portability: user can continue their education in any place and at any time;
- Mobility. In the case of replacement or loss of a smart phone, you can download the app again and resume training without any problems.
- Low Cost: smart phones are less expensive than desktop computers.
- Prices for delivery of education below;
- Divide the course into modules;
- Compact and lightweight mobile devices;
- Can be supporting tool for teaching people with special needs;
- Good Use of Time: Most students do not know what to do during "dead time" like when travelling or just waiting for a bus. With smart phones, they can now learn even when they are just sitting on a bus waiting for the next stop.
   Some negative aspects of mobile education:
- Cost: Although smart phones are cheaper than desktop, laptop and tablet computers, they still cost a lot. They can cost anywhere from $100 to $500.
- Usability: The keypad is too small on some smart phones making it hard for some users to type.
- The problem of checking the quality of e-learning courses;
- Legal problems;
- Staffing problems;
- Feedback;
- Might be harmful for health;
- Technical problems;
- Social and educational problems. [7]

Using the mobile applications is about to change the traditional way of learning. There are a lot of possibilities to deepen the knowledge, but new technologies are making it much easier and entertaining. Mobile applications represent a potential breakthrough in the way kids can learn — and the amount they can learn while doing it.

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ӘОЖ 004
CAMTASIA STUDIO ПРОГРАММАСЫНЫҢ МҮМКІНДІКТЕРІ

Абдимуталифова Қаламқас Жарылқасынқызы, Бозаева Әселхан
Қ.Жұбанов атындағы Ақтөбе өңірдік мемлекеттік университеті, физика-математика