PROBLEMS IN IT SECTOR, SOLUTIONS AND PERSPECTIVES



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Annotation

This article is devoted to measure history of computer science, current issues of IT sector and giving several solutions and theories according to these problems. This article analyzes who creates the IT problems, hardware and software related to IT issues and their valuable solutions. The author informs some promising researches in this direction.

Key words: IT sector, hardware, software, problems and solutions of IT sphere, information technology, protecting information, hackers.

Annotatsiya

Ushbu maqola komputer tarixini, IT sohasining dolzarb muammolarini o'rganishga va ushbu muammolar bo'yicha bir nechta yechim va nazariyalarni berishga bag'ishlangan. Ushbu maqolada IT muammolarini kim yaratayotgani, IT muammolari bilan bog'liq apparat va dasturiy ta'minot va ularning yechimlari tahlil qilinadi. Muallif ushbu yo'nalishda bir qancha istiqbolli tadqiqotlar haqida ma'lumot beradi.

Kalit so'zlar: IT sektori, apparat, dasturiy ta'minot, IT sohasi muammolari va yechimlari, axborot texnologiyalari, axborotni himoya qilish, xakerlar.

Аннотация

Это статья посвящена истории информатики, текущим проблемам ИТ-сектора и предлагает несколько решений и теорий в соответствии с этими проблемами. В этой статье анализируется, кто создает ИТ-проблемы, аппаратное и программное обеспечение, связанное с ИТ-проблемами, и их ценные решения. Автор сообщает о некоторых перспективных исследованиях в этом направлении.

Ключевые слова: ИТ-сектор, аппаратное обеспечение, программное обеспечение, проблемы и решения ИТ-сферы, информационные технологии, защита информации, хакеры.

Computer science ideas were first mentioned before the 1950s at the Massachusetts Institute of Technology (MIT) and Harvard University, where they discussed and began thinking about computer circuits and numerical calculations. Over time, the field of IT and informatics has become more sophisticated and able to process more data. Scientific articles from various organizations began to be published. Looking back to early computers, Alan Turing, J. Presper Eckert, and John Mauchly are considered the main pioneers of computer technology in the mid-1900s.

IT is an abbreviation of the words "Information Technology" taken from the English language, and in Uzbek it is called "Akhborot tekhnology". Even so, we pronounce and use the word IT. Information Technology is the technique of creating, collecting, distributing, storing, processing, and protecting information. Information technology education plays an important role in the modern world. There are several reasons for this. For example, there is a high demand for IT specialists, that is, an increase in the need for qualified specialists in the field of information technology in the process of the development of technology and digitization of all aspects of life. Today, there are many job vacancies related to software development, data analytics, cyber security, artificial intelligence and other areas of IT.

And the fact that the demand for specialists in this field exceeds the supply allows you to get a high salary and have a wide catalog for choosing a job. Also, the IT industry is in constant motion, new and innovative technologies are emerging every day. Education in this field helps us stay abreast of the latest trends, learn new tools and ways of working, and adapt quickly to a changing environment. In addition, IT business is entering all spheres of society. They help to automate processes, improve work efficiency, improve communication and create new business opportunities. Education in the field of information technology creates conditions for

understanding these technologies and using them for innovation and transformation in various fields. Another important aspect is that IT professionals have analytical, logical thinking and complex problem solving skills. Education in the field of IT develops the ability to think critically and find technical solutions to various problems. In general, education in the field of information technologies allows you to get a well-paid job, participate in innovative projects, contribute to the development of modern society and is important for creating a sustainable future. There are some major problems of information technology. First, Hackers cause huge IT problems. Security is not just a problem for large companies. All companies manage the risk of hackers. Small businesses are more at risk because many of them do not have a security policy. Hackers target smaller companies. 43% of cyberattacks target small businesses. However, only 14% of small businesses rate their security as highly effective. Network monitoring is the solution to this problem. Furthermore, protecting against cybercriminals with lots of experience and cash. Secondly, companies do not have backup, every company should back up its data. Every company says they have a backup plan, but the smaller ones do nothing with it. A good backup plan combined with good security is the last line of defense against hackers. If a hacker manages to block everything from you, you always have a backup to reboot your systems.

The activities of TATU, INHA, AMITI and other IT universities in Uzbekistan play an important role in the development of education and personnel training in the field of information technologies. These universities make a great contribution to providing our country with qualified IT specialists. This serves the development of technology and innovations in Uzbekistan.

The immeasurable value of these universities is that they are shaping the next generation of IT professionals who will benefit and contribute to the country's development. The labor force trained in the labor market is a key factor in strengthening the information society, stimulating innovation and supporting economic growth. Of course, it is important to improve the quality of education, adapt educational programs to the requirements of the rapidly changing labor market, and help students and young people acquire modern knowledge and skills. In addition, in order to support the development of the education and IT sector in our country, it is important to support cooperation with other universities and exchange experience.

Education in the field of information technology in Uzbekistan has experienced significant development and improvement in recent years. We are witnessing an increase in the number of universities offering IT programs every year. It is very pleased that the government supports the development of the IT industry, cooperation with foreign universities, and the development of IT startups and incubators. The demand for IT specialists is also increasing, and prospects are being created for graduates. As in all fields, scientific achievements are rapidly entering the field of information technology and communication today. This encourages the introduction of innovative projects, the development of software products and information technology, the support of start-up ideas suitable for socio-economic growth, and increases competitiveness in the process of globalization. Through the wide use of information and communication technologies in the educational process, not only from generation to generation, but also from one person to another, to speed up the transfer of knowledge, accumulated technological and social experience of mankind, to enable a person to adapt more successfully and quickly to the environment and ongoing social changes, and by reforming the education system, it will be formed in accordance with world standards.

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