

**PROBLEMS AND SOLUTIONS OF MODERN INFORMATION AND COMMUNICATION TECHNOLOGIES****A'zamov Valixon Fayzullayevich***Toshkent gidrometeorologiya texnikumi*

**Abstract:** *Modern information and communication technologies (ICT) have revolutionized the way we communicate, work and use information. However, they also create new problems and challenges. This paper aims to explore contemporary ICT challenges and solutions by analyzing their impact on various aspects of society such as privacy, security, employment, education and social interaction. The article identifies the main problems associated with modern ICT and offers potential solutions to solve them. These include improving data protection laws, strengthening cybersecurity measures, promoting digital literacy and skills development programs for individuals of all ages, encouraging ethical behavior in online communication, and fostering a culture of responsible technology use. In today's world, information and communication technologies (ICT) have become an integral part of our lives. With the increasing use of ICT, a number of problems need to be solved. This article discusses modern ICT problems and solutions*

**Keywords:** *ICT, technology, development, cyber security, digital literacy, AI, IoT, bigdata.*

**Enter:** In today's world, information and communication technologies have become an integral part of our daily life. They have revolutionized the way we communicate, work, learn and even entertain ourselves. Advances in technology have allowed us to easily access and share information at lightning speed. With the advent of modern information and communication technologies (ICT), we now live in a more connected world than ever before. Modern information and communication technologies (ICT) have revolutionized the way we communicate and access information. With the advent of smartphones, laptops, and social media, we can now connect with people around the world, share information in real time, and access an endless stream of knowledge. However, these technologies also brought with them a number of problems that needed to be solved.

Modern ICT fields are diverse and constantly developing. Some of the major areas include: 1. Cloud Computing: Cloud computing refers to the use of remote servers located on the internet to store, manage, and process

data instead of using a local server or personal computer. This technology has revolutionized how businesses operate by providing a cost-effective way to store data and access software applications.

2. Artificial Intelligence: Artificial Intelligence (AI) is a branch of computer science that deals with creating intelligent machines that can perform tasks that normally require human intelligence, such as speech recognition, decision making, language translation, etc. AI is widely used in various industries such as health, finance, transportation, education, etc.
3. Internet of Things: The Internet of Things (IoT) refers to a network of physical devices such as smart phones, smart home appliances, vehicles embedded with sensors that enable them to communicate with each other over the internet without human intervention. IoT has revolutionized smart homes and cities by enabling automation and remote control.
4. Cyber Security: With increasing use of technology, cyber threats such as hacking, malware attacks, identity theft, etc. are on the rise. Cybersecurity involves the use of technologies and measures to protect confidential information from unauthorized access or attack.
5. Big Data: Big data refers to large volumes of structured or unstructured data that require advanced tools for processing and analysis. Big data analytics helps businesses gain insights into customer behavior that can be used to create effective marketing strategies.
6. Virtual Reality and Augmented Reality: Virtual reality (VR) and augmented reality (AR) are immersive technologies that allow users to interact with computer-generated environments or objects in the real world. They are widely used in games, education and entertainment.
7. Mobile Computing: Mobile computing refers to the use of mobile devices such as smartphones, tablets and laptops to access the internet and perform various tasks. This made remote work possible and allowed businesses to be in constant contact with their customers and clients.

One of the most important problems with modern ICT is the issue of privacy. With so much personal information being shared online, there is also the risk of identity theft, cyberbullying and other forms of online harassment. In addition, companies often collect large amounts of data about their users without their consent or knowledge.

### Challenge

1: Cyber Security One of the biggest challenges facing modern ICT is cyber security. As the use of digital platforms increases, so does the risk of cyber attacks. Cybercriminals can steal sensitive information such as personal information, financial information, and intellectual property. This leads to financial losses and reputational damage.

Solution: To solve this problem, individuals and organizations should take steps to protect their

digital assets. This includes using strong passwords, regularly updating software and antivirus software, and being careful when clicking on links or downloading files from unknown sources. Challenge

2: The Digital Divide Another challenge with modern ICT is the digital divide. The digital divide refers to the gap between those who have access to technology and those who do not. It can create unparalleled opportunities for education, employment and social interaction. Solution: Governments are underserved

### Summary

In conclusion, modern ICT has brought a number of advantages to our lives, but they also create problems that need to be solved. By taking steps to address these issues, we can ensure that technology continues to be a positive force in our lives. Governments, organizations and individuals must work together to create a safe and secure digital environment. Although modern ICT has brought many benefits, it has also created several problems that need to be solved. By enacting laws that protect online privacy rights, bridging the digital divide through community programs, and encouraging responsible use of technology, we can move toward a more sustainable and just technological future

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