



## CREATION AND USE OF ELECTRONIC INFORMATION RESOURCES

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**Abstract.** This article examines the theoretical and practical foundations of creating electronic information resources, the stages of their development, and effective methods of their application in the education system. The significance of electronic resources in improving the quality and efficiency of education, their advantages, and the challenges encountered during their implementation are analyzed. In addition, the role of electronic information resources in the development of a digital educational environment is substantiated.

**Keywords:** electronic information resource, digital education, information and communication technologies, electronic library, multimedia technologies, educational process, information systems.

### Introduction

The rapid development of information and communication technologies (ICT) worldwide has created new opportunities in all sectors, including education. It is difficult to imagine modern education without digital technologies. Electronic information resources have become an important tool for enriching educational content, accelerating information exchange, and organizing the learning process more effectively.

In Uzbekistan, special attention is being paid to the creation and implementation of electronic educational resources within the framework of state programs aimed at developing the digital economy and digital education. This necessitates the widespread use of electronic information resources in educational institutions.

### Content and Importance of Electronic Information Resources

Electronic information resources are collections of information stored in electronic form and accessible through computer technologies and telecommunication networks. These include electronic textbooks, electronic teaching manuals, virtual laboratories, databases, web portals, electronic libraries, and multimedia products.

The main functions of electronic information resources include:

- Providing quick and easy access to information;
- Supporting independent learning;
- Improving the effectiveness of educational activities;
- Facilitating information exchange and communication;
- Enhancing the quality of education through multimedia technologies.

### Technology for Creating Electronic Information Resources

The development of electronic information resources is carried out through several stages:

**Planning Stage.** At this stage, the objectives, tasks, functional capabilities, and target users of the resource are determined. The content structure and forms of presentation are also defined.

**Design Stage.** The structure, design solutions, interface elements, and navigation system of the resource are developed. Creating a user-friendly and understandable interface is essential.

**Content Development Stage.** Textual, graphical, audio, and video materials are collected and edited. The content must be scientifically accurate, methodologically appropriate, and aligned with users' needs.

**Software Development Stage.** The electronic resource is created using web technologies, multimedia tools, and specialized software environments. During this process, information security and technical reliability requirements are observed.

**Testing and Implementation Stage.** The completed resource is tested in practice, identified shortcomings are corrected, and the resource is subsequently introduced for use.

### **Advantages of Electronic Information Resources**

Electronic resources offer several advantages over traditional educational tools.

First, they provide quick and convenient access to information. Users can find the required information in a short period of time.

Second, electronic resources present information in a visual and engaging manner through multimedia technologies.

Third, they enable learners to follow individualized educational trajectories.

Fourth, they save time and economic resources by reducing the need for printed materials.

Fifth, they support the effective organization of distance learning.

### **Challenges in the Use of Electronic Resources**

Despite their benefits, the widespread use of electronic information resources is associated with several challenges, including:

- Insufficient development of technical infrastructure;
- Problems related to internet speed and connectivity;
- Information security and cybersecurity issues;
- The need to protect intellectual property rights;
- Differences in users' levels of digital literacy.

To address these challenges, it is necessary to strengthen the technical infrastructure of educational institutions, improve teachers' digital competencies, and enhance information security measures.

### **Prospects of Electronic Information Resources in Education**

In the future, the development of artificial intelligence, cloud technologies, Big Data, and virtual reality technologies will further expand the capabilities of electronic educational resources. This will contribute to improving the quality and effectiveness of education.

Moreover, adaptive learning systems will make it possible to automatically provide educational materials that correspond to the individual knowledge level of each learner.

### **Conclusion**

In conclusion, electronic information resources constitute an integral part of the modern education system. Their creation and effective use contribute to improving educational processes, increasing the efficiency of information utilization, and enhancing the quality of education.

Therefore, further development of electronic resources and their effective implementation remains one of the most important tasks of the present day.

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