



**INTERNAL RULES
FOR OPERATION AND USE
of cloud virtual libraries
of digital educational resources
of Tajikistan
created under the project
“Modernisation of higher education
in Central Asia
through new technologies”
(HiEdTec)**

Dushanbe – 2021



What are cloud virtual libraries

Library of the XXI century acts as a knowledge organizer. Exactly the technologies that will allow library knowledge and information to overcome existing barriers: geographic, technological, social. The main thing is not to feverishly transfer all library processes to the "clouds", but to develop a transition plan and competently take advantage of all the advantages of the current situation

Electronic library - an ordered collection of various electronic documents (including books, magazines), equipped with navigation and search tools. It can be a website where various texts (more often literary, but also scientific and any other, up to computer programs) and media files are gradually accumulating, each of which is self-sufficient and can be claimed by the reader at any time.

Electronic libraries can be universal, striving for the widest choice of material (like the Library of Maxim Moshkov or Librusek), and more specialized, like the Fundamental Electronic Library or the Network Literature project, aimed at collecting authors and types of text that most clearly declare themselves on the Internet¹.

Electronic libraries should be distinguished from related structural types of sites, especially literary ones. Unlike a literary magazine, which was as a type of print publication, but successfully and without fundamental changes in the structure of the Internet, the electronic library is not subdivided into issues and is permanently updated as new materials appear.

Unlike a site with free publication, an electronic library, as a rule, is selected by the project coordinator at his own discretion and, more importantly, does not provide for the creation of a communicative environment around the published texts. At the same time, in the practice of individual Internet projects, both hybrid forms and intermediate solutions can arise: for example, the opening of guest books in the electronic library Network Literature for each published author, to a certain extent, introduces into the project an element of forming a communicative environment consisting of authors and readers, which is generally uncharacteristic for digital libraries²

Now in practice, four systems (models) of cloud systems are used:

A private cloud is an infrastructure designed for using by one organization, including several departments. A private cloud can be owned, managed and operated by the organization itself or by a third side.

A public cloud is an infrastructure designed for free use by the general public. The public cloud can be owned, operated and managed by commercial, academic, and government organizations (or any of their combinations).

A hybrid cloud is a combination of two or more different cloud infrastructures (private, public) that remain unique objects, but are interconnected by standardized or private technologies for transferring data and applications (for example, short-term use of public cloud resources for balancing loads between clouds).

¹ Ru.wikipedia.org/wiki/Электронная_библиотека

² Ru.wikipedia.org/wiki/Электронная_библиотека



A public cloud is a type of infrastructure intended for using by a specific community of consumers from organizations with common tasks and may be co-owned, managed and operated by one or more of the community organizations or a third party (or any combination of these).

Technical characteristics of the server purchased at the expense of the project budget for partners from Tajikistan:

Server HP Proliant DL20 Gen9

CPU Intel® Xeon® Processor 4 of Cores/

Сокет FCLGA1151/

E3-1220 v6 /

3000 MHz /

Количество процессоров 1 /

Кэш третьего уровня (L3C) 8192 Кб /

Чипсет Intel® C232 Series /

RAM 8 Gb DDR4 ECC Unbuffered 2133 mhz /

HDD 2x1Tb



INTERNAL RULES OF OPERATION AND USE VIRTUAL LIBRARY

1. Procedure for registration and authorization in the system

Cloud virtual libraries are a way to implement the educational process using modern information and telecommunication technologies, which makes distance learning possible without the personal participation of teachers and students.

Distance learning is a new stage in the development of digitalization, which involves the use of information technology.

The main condition for entering the system is to specify the password and login of each user who can use the available parameters.

The unified management system for distance learning of the Technological University of Tajikistan operates on the global Internet under the address (77.95.0.54/moodle/) and provides students with timely and unimpeded access to the necessary information. The system is transparent and all data is centralized.

One of the main goals of using and implementing such a system is to guarantee the quality of education at the university, so using of this system, the student will be able to obtain the necessary information.

Upon entering the system, the student is authorized on his page by choosing a personal login and password and has the opportunity to familiarize himself with the necessary information.

The system provides students with the following opportunities:

- Constant communication with the teacher, the possibility of immediate consultation on any issues that arise using telecommunications (internal e-mail, skype, etc.)
- Availability of theoretical and practical materials in electronic form (slides, audio presentations, video tutorials)
- Using the electronic library
- Determination of points in subjects for the current and past semesters

2. The procedure for applying for the layout of electronic educational materials

To post information in the cloud library, the teacher contacts the server administrator to receive and post educational materials in the library.

The teacher has the ability to post the following information:

- Post news or new announcement in your group
- Change your profile (e.g. password, picture and sometimes additional information)
- Collect and record material for ongoing tests
- Lecture course
- Test Materials
- Tasks and examples



Recommended sources for teaching this discipline.

3. These rules imply the creation of:

- distance course on the subject (to choose from depending on the direction);
- center for distance support of the educational process;
- center for remote technical support;
- a center for remote consulting of specialists in various fields (for example, in the field of information security);
- The website of the educational institution;
- Site of the social support center, etc.

This is a convenient form of organizing independent work:

- students work exclusively with their projects or their parts, sections;
- it is possible to carry out the project in a distributed form, i.e., the student can do his part of the work regardless of the place of distribution of the rest of the group members;
- all actions are recorded (documented) with the indication of user data (date, time and username), which is very useful when assessing the work of each student;
- use of any kind of computers is permissible, since Google-sites are cross-form systems.

The use of cloud technologies by students in the process of studying information disciplines within the framework of project activities made it possible not only to study the disciplines themselves, but also to perform the following additional work:

- establish interactions between teachers and students in the educational process;
- improve the information literacy of students;
- study the basic concepts of information security;
- get skills in working with various network file storages;
- get the skills of creating various specialized organizations, depending on the direction of training;
- get the skills of organizing group execution of projects.

4. Financing and functioning of virtual libraries of digital educational resources.

The main sources of funding are:

- financing at the expense of public funds in order to implement the tasks of the “Concept of Forming Electronic Government in the Republic of Tajikistan”. Decree of the Government of the RT dated 30.12.2011.
- Grants from the TARENA Association for the dissemination and sustainability of the project (support in the creation of a cloud system, provision of storage space, domain services, Internet provision and expansion of access to electronic resources among academic and research institutions);



- financing through the organization of paid courses on the use of ICT means in the teaching process among the universities of the Republic of Tajikistan;
- financing through the provision of services for the digitalization of educational materials;
- financing through the provision of technical services;
- financing through the provision of consulting services centers;
- financing through the implementation of sectoral projects in the direction of the centers' activities;
- financing at the expense of universities.