Information Portal “Our School”: A Case Study of IT Introduction into Education in Ukraine

Olga Danylova, Alla Manako, Kateryna Synytsya, Oleksiy Voychenko
International Research and Training Center for Information Technologies and Systems, 40, prospect Academica Glushkova, 03680, Kyiv, Ukraine
+38-(044)-266-63-11

ABSTRACT

This paper describes Ukrainian IRTC activities in web school portal development and support. At first, the problems of Ukrainian education informatization are considered. Here also is performed an analysis of different education portals types. As a result, the educational portals taxonomy was built. All these became the theoretical base for building Ukrainian school education portal. Finally, in this paper we would like to describe the main purposes we reached by realizing the project.

The processes of globalization covers all spheres of human activities step by step. The integration to the global information space requires intensive introduction of several society informatization principles [1] and active reduction of digital divide between the countries [2]. One of the factors facilitating globalization process is the universal introduction of the modern IT and granting the wide access to the information and knowledge for diverse audiences.

Pursuing the purposes of integration with a global information society, Ukraine has encountered a number of problems. The introduction of ICT has led to a sharp increase of publicly available unstructured heterogeneous information which varies in its quality and reliability. Due to the absence of effective accounting, integration, multilingual support and intellectual search mechanisms, the human information processing time and efforts increased significantly. It is especially evident at training maintenance processes.

A solution of the described problem we see in creation of information educational portals network. We consider an educational portal as a virtual information environment, which provides centralized access to the set of heterogeneous electronic educational information sources and services, together with support of management, organization, personalization, and delivery functions and the communicative users’ activity [3].

By the network of educational portals we mean a number of interacting portals, where content and services set of each one is intended for specific target group of educational space users.

Creation of the educational portals network allows us to achieve the following goals:

- Integration of the electronic educational resources into a common information space.
- Catalogization of educational resources. Recently, the international standard IEEE LTSC Learning Object Metadata [4] and Dublin Core Metadata [5] specification became the most popular for this purpose. Structured educational resources description for their representation in a form of thematic catalogs and resources collections.
- Fast and easy (one point) access to educational resources.
- Fast and easy information search using multiple criteria within information space by means of advanced search algorithms.
- Support of user’s cognitive activity.
- Providing educational portal users with personal virtual space, which includes both heterogeneous structured information adopted by the user and some features for the user’s activities support.
- Foundation and support of interactive communication environment, where users are provided with communication services in synchronous and asynchronous modes, possibilities to create virtual learning communities and collaborate on implementation of common educational projects.

Let’s analyze modern tendencies in Ukrainian educational services to identify the target groups, development directions and sets of services required for portals. Active introduction of distance education technologies and the realization of life-long learning (LLL) principles resulted in increase of informal training share in relation to the formal one [1]. It requires new approaches and technologies for students’ support by extensive electronic information resources implemented in variety of technical formats. Considering informatization of school education and the increase of high schools in number, one can see, on one hand, the growing demands for qualitative educational resources, and on the other – increasing number of various educational resources that need to be evaluated.

We think, that creation of portal network covering a wide spectrum of information and supporting variety of services, is essential to meet the described needs.
Upon a study of a number of educational portals taxonomies [6-9], we suggest to base classification of educational portals on specifics of their information collections and services (see fig. 1):

Regional educational portals comprise information about regional higher education institutions, provide educational space monitoring and coordinate educational resources distribution in the educational portals network.

Institutes' portals – offer information and organization support of learning process in institute with modern ICT. Such portals may be of two types: for public use and for institute users only.

School portals – provide information support of school education by methodical, didactic, learning and legal materials.

Scientific portals provide access to different scientific electronic resources and serve for research activities support.

Project portals – provide information and services for educational projects support and implementation.

Thematic portals - integrate and provide access to learning information resources of different kinds devoted to specific topic.

Learning portals – facilitate learning processes by emerging ICT tools and services Portal “Our School” was developed in 2002 at IRTC as a non-commercial project to support informatization of Ukrainian school education (www.dlab.kiev.ua) [3].

The following goals were stated at the beginning of the portal development and reached later:

- Organization of centralized access to Ukrainian digital learning resources;
- Provision of selected audience (teachers, students, their parents, etc) with important educational information;
- Creating opportunity of users’ interaction by the use of modern ICT;
- Portal users’ assistance in learning resources development, experience exchange and collaborative work;
- Facilitation of teachers’ professional skills improvement;
- Popularization of educational events such as conferences, round tables, seminars, exhibitions, etc. both within Ukraine and abroad;
- Help in modern ICT use in learning process.

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