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Certain aspects of copyright protection of open educational resources

One of the most popular types of network communities today is knowledge exchange communities (practice communities) that represent social communities, members of which are involved in collaboration and the crucialcondition here is their communication.The main components of knowledge exchange communities are the following:

- Knowledge area. As a rule, knowledge area is the ground for interaction that influences originality of thecommunity and formation of its specific features that make community members participate in collaboration and contribute intellectually in community development.

- Group of people interested in this knowledge.

-Collaboration of participants and their common theoretic and practice tasks.

According to S. Bondarenko [1]there is a new principle in network communities in the view of pedagogic communication.According to the traditional model of educational communication there were used the models "one-tomany" in a team and "one-to-one" individually. In educational network communities the "all-to-all" principle is used. This communication model has a high value because participation in such communities forms tolerance, group and critical approach to task solution, adoption of decentralized models not to mention formal and informal communicationon professional topics, innovative approaches and exchange of educational experience. The author believes that educational network communities are structured groups of computer network users that communicate for educational purposes, have stable social roles and behave in the virtual reality in a certain way. As a rule, there are several types of educational work in such communities: network publications, competitions, consultations, comments on materials, distance education, creative laboratories, projects etc. S. Bondarenko [1]suggests classifying educational network communities according to the following: ***number ofparticipants, types of collaboration, focus on certain groups of learners***. According to the number of participants the global social community Internet can be presented as consisting of macrosocial and microsocial network communities.[3]

According to the types of collaboration the author suggests the following classification of network communities:

1. Virtual network communities of teachers (tasks: planning, methodological cooperation etc.).

2. Virtual network communities of teachers and experts (tasks: two-way channel between teachers and experts on a certain subject that helps teachers train and get news and methodological help and experts know the real state of affairs in their professional interests).

3. Virtual network communities of learners and teachers (tasks: community members should carry out a proposed project; in this case the teacher is a participant, not the leader).

4. Virtual network communities of learners (tasks: discussion, carrying out projects, common problems solution,

mutual assistance).

5. Virtual network communities of learners, teachers and experts, a cluster of virtual network communities

(tasks: learners get to know problems of the real world, so there will be an opportunity to fill the gap between acquiring new skills and using it in practice).

According to the focus on certain groups of learners the author suggests the following types of communities:

Preschool educational virtual network communities.

School educational virtual network communities.

Secondary and higher education virtual network communities.

Further training virtual network communities.

Efficiency criteria of educational network communities include the number of active participants; community life cycle; dynamics of its development that includes increasing number of active participants, amount and quality of

discussed topics; information, methodological, consultation, expert, educational, project activities; certain rules of behavior and designing in community; structured knowledge base of community; information-communication activity of community (internet seminars, conferences, network meetings, informing of internal and external events of community, interaction with similar communities).

Some of Russian educational network communities are «Set tvorcheskikh uchiteley» (Network of creative teachers) http://www.it-n.ru/); «Sotsobraz» (Social image) (http://wiki.iot.ru/index.php/); Sodruzhestvo metodicheskikh obedineny (Methodological communities) (http://center.fio.ru/som/); Vserossiysky @vgustovsky Internet-Pedsovet (All-Russian @ugust Internet staff meeting) (http://pedsovet.alledu.ru); «Internet – gosudarstvouchiteley» (the Internet is the state of teachers) (www.intergu.ru). Among foreign educational network communities there is European School Network (www.eun.org). Its purpose is the adoption of information and communication technologies in the European educational system. Some of significant parts of European School Network are Virtual School (http://www.eun.org/vs) and Collaboration Area (www.eun.org/projects/). Collaboration Area is intended for schools and teachers that participate in international projects and want to find correspondence partners. American program I*EARN (http://www.iearn.org) offers learners

to better understand our life, participate in joint research, scientific and creative projects, develop skills and desire for learning. Canada SchoolNet (www.schoolnet.ca) is an educational website that contains more than

7000 educational resources that are interesting for learners, teachers and parents. In Great Britain there is a school community server Windows on the World (www.wotw.org.uk). Learners from 5 to 19 years old are looking for partners all over the world to carry out educational projects together. The server is supported by the Education Department of the British Council.

Considering this way of information representation we can say that any educational network community is a regularly updated electronic edition for education, information and entertainment purposes that is available by using

tools of the Internet. Educational network community is presented by World Wide Web as a website containing text and multimedia materials and articles on applicable topics of community. Access to these articles and transition

through hypertext are available by internal and external links. In contrast to offline versions these network communities contain interactive elements such as tests, animations, games, online polls, distribution, blogs and search system.

As a rule, any educational network community as a web-resource has an Internet address that helps it to be found among other communities.

The structure of a network community is obviously integration of content, structure and design aspects into a multilevel structure that allows users to easily use resources of this web-resource.

This is actually combination of website interface, text and graphic materials and multimedia (sound, video) objects.

Considering the electronic form of presenting information of network communities, questions of graphic design of interface as well as content of web-resource become actual questions. Practice principles of e-edition layout design should be held with the help of approaches developed in the field of

linguistics and semiotics that reveal combination laws of text content, images, semantics of fonts and text marking (italics, spacing, indent etc.) .

When text semantic system is broken, the recipient becomes "semiotic (information) noise" quite often and interprets the content incorrectly. From the hermeneutic viewpoint it can be defined as partial loss of information truth.

Graphic presentation of the content should obviously be graphically expressive to stimulate complete transfer of pragmatic potential of verbal means when e-text is quickly read. One of the text readability features is ergonomic design of the text.

Our study is based on the protection theory of A. Reformatsky that sets a theoretical guideline of understanding semiotic possibilities of graphics in its correlation with the text and its content [1] and is a necessary application incomputer design of hypertext, and specifically, different web-resources.

But the most interesting thing is the role of cognitive mechanisms and understanding of it during the graphic design of electronic text. The fact of the matter is that graphic expressiveness of text is based on laws of perception of

graphic symbols. Psychological perception of the reading process should be analyzed to understand the laws of expressive means available to designers (editors) to transfer the whole meaning of text being created.

We understand the meaning of text when perceiving it or rather when seeing it.

External facts that are the base of visual perception consist of visible spots of different size, form and pattern and blanks that alternate with these spots.

The type, order and proportion between spots and blanks are not random, but logical. They are the context, a special system that closes a sequence of symbols, all the elements of which are interdependent.

There is a strict correspondence between visual irritation and awareness of it. The consciousness exactly catches the difference between capital and small, upright and inclined, thin and bold letters and recognizes the same cases in the text.

Certain graphic symbols, its order and interconnection are associated with a certain content and meaning. It follows from this that the base of the reading process is symbol recognition and its structural storage, translation from the language of visualization to the language of sense.

It's necessary to mention that ergonomic requirements are essential for two main components of the design of any educational network community: interface as a means of human-computer interaction and text organization itself as the linguistic component. Within the bounds of this criterion there are four main elements that provide such human-computer interaction.

These are three menu types: local, global, service and navigation.

The purpose of designing ergonomic interface is to represent information using said elements as effective as it is possible for human perception and structure representation on the display to attract attention to the most important

information items. The main purpose is to minimize general information on the display and represent the information required for user.

All the requirements to ergonomically design the interface of any network edition can be divided into three main groups:

☐Navigation.

☐Page structure.

☐Colour solution.

Any person sitting in front of the computer starts the work with information receiving. In his consciousness the

properties of objects being perceived from the display are reflected and his sensory image is formed. Physiological base of sensory image formation is the functioning of visual analyzer.

Some conditions that define normal functioning of visual analyzer bring us to main criteria that are presented in the work of A. Reformatsky [2]:

☐Font.

☐Nonfont.

☐Graphic.

Text structure representation, hierarchy establishment, semantic proportion marking, representation of architectonicproportions system are realized by font and nonfont text features that are the most important text components.

But there is a problem in systemization of graphic norms because principles of graphic expressiveness of the text are based on font and nonfont features.

The protection theory of Reformatsky [Ibidem] solves this problem and marks text segments by changing graphic features to highlight its semantics.

In cases when semantic proportion is not perceived, its protection is not enough. It's necessary to add graphicfeatures that are extra-protection of semantic proportion for reader's perception.

Basic principles of the graphic protection theory of Reformatsky are the following:

1. Every marked element of the text should be protected enough by graphic features for reader's perception.

2. To choose the most practical protection means it is necessary to represent all the elements marked by the same features and add graphic features to those elements that need extra-protection. Note: it is necessary to change one graphic feature only to strengthen or weaken this type of symbols. When two, three etc. features are changed the protection can be redundant.

3. The accepted system of graphic features for certain symbol types should be kept over the whole text document to prevent symbol synonymy.

4. The context (quantity and proportion of text elements) is the main criterion for selecting the most practical option from some equivalent.

It is practical to mark an electronic text only after analyzing possible equivalent systems for marking different text segments and titles.

Almost every expert in website development has now his own design rules and these rules are not always the same. So the main task of ergonomic design of text and interface for educational network communities is the analysis of such criteria for developing a specific model, general text design aspects that are the most effective for perception of text information by users.

Now more and more educational technologies are welcomed in our everyday life. One of them is distant learning, which includes most common for students and learners open educational resources. There are many successful examples in USA (MIT OCW, Connexions), France (ParisTechOCW), China (CORE), Taiwan (OOPS), Turkey (METU), Spain (UNIVERSIA), UK (OpenLearn) and others.

Distant learning has many advantages. It widens and provides easy access to education, it makes it affordable for everyone, breaks geographical limits, saves time and money for world-wide companies on their corporate courses. Open educational resources (OER) improve quality of materials and which is now really topical – allow students to build their individual learning path (trajectory).

However, it's impossible to deny multicultural specifics of education. Looking closer there can be found difference in networking among group members, hierarchy and size of communities, types of tasks, interfaces, access characteristics and etc.

Cultural differences influence intellectual preferences and build personal learning style (frame), unique in every cultural group.

While studying cultural specifics we found that they hinder internet resources a lot from being comfortable in perception, use and understanding in multicultural communities. So we have distinguished 3 main components, which have to be taken into account while designing open educational environment on the Web.

They are:

1. Ergonomic design of OER;

2. Academic (pedagogic) specifics;

3. Content preferences and specifics.

Meanwhile, content preferences initiated by cultural differences make the problem of using OER even deeper.

While OER provide free official use and reuse of materials, we have to respect the rights of copyright user. As for western countries (cultures) the intellectual right and copyright questions are critical, they have already taken certain steps to form open-licensing framework. All their papers have to include references to all the resources and thoughts involved. These resources

should be recognized as reliable for being an official source. And when the author and copyright are absent, the resource cannot be considered as official source of information.

The opposite situation is common for eastern countries, including Russia and CIS. The problem of copyright is the last one to be taken into account. Nevertheless, official promotion, support and recognition of OER is not possible without established copyright policy. And now it's a huge deal to correctly adopt the mechanisms like Creative Commons licensing for Russia and CIS counties, to make them work correctly, ensure their relevance at all levels.

As a result, it's clear that cultural differences influence almost every detail in educational environment. They form certain patterns in behavior which in their turn influence even the legal components of OER.

Cultural adaptation of OER is one of basic principles mentioned in 2012 PARIS OER DECLARATION. The only problem is to make it work

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