



Design For E-Learning - Modern Educational Web-Portal

S. B. Belikov, A. V. Smoliarov

► **To cite this version:**

S. B. Belikov, A. V. Smoliarov. Design For E-Learning - Modern Educational Web-Portal. Michael E. Auer. Conference ICL2007, September 26 -28, 2007, 2007, Villach, Austria. Kassel University Press, 4 p., 2007. <hal-00197261>

HAL Id: hal-00197261

<https://telearn.archives-ouvertes.fr/hal-00197261>

Submitted on 14 Dec 2007

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Design For E-Learning. Modern Educational Web-Portal.

Belikov. S. B., Smoliarov A. V.

Zaporizhzhya National Technical University, Ukraine

Keywords: E-Learning, Design, Portal, WEB, Style 2.0, Analysis

Abstract:

Let's notice that all the set of above-listed means appear at the user in two features - design and usability, "fine" and "suitable". However on closer examination these features are a part of some unit – web-design in its widest definition. So what the web-design of a modern educational portal should be? What kind of requirements are made of it? What kind of technical features for portal structure formation and its style decision we can allocate for today?

All these questions are considered in given article, being based on more than a 5-year experience of a various-oriented web portals creation and sociological researches as well as modern technologies and growing trends of the Internet community.

In connection with the brisk development of Ukrainian internet there is a task for educational institutions – to create own Internet-subsidiaries, and sometimes to optimize existing decisions. This means a number of activities on formation of the new IT-policy. Attract on of a lager number of users to the resources is based on the democratic rules created at the dawn of the Internet, on the requirement of "fair play". However, the competitive nature of network resources is obvious - the success in this competition is reached by the use of an extensive arsenal of means which include creation of content, structures, design, maintenance planning and a target audience definition, the organization of additional services and other things, which clearly illustrate the complex nature of web-projects.

First of all I suggest you should visit an educational portal chosen at random, and try to describe it quickly, without a moment's thought. And now cross out words that are related only to your perception and don't give an objective definition to the portal, e.g. "nice", "fine", "stylish", "understandable", "qualitatively", "informatively" and so on. What remains? That's right – nothing! Or almost nothing. Except the essentials – the sense of comfort and wish for further reading.

So what do we see first of all when we visit an educational portal, distant learning system or some automated system developed to help users to raise their general level of knowledge or to certify

present level? That's right – we see the design. The system appearance and structure, and whether we like it at first sight. We seldom think about it. It takes place subconsciously. However according to psychologists the person makes a decision on a kind of object exactly in the first 5-10 seconds. Whether he likes that he can see, whether it causes negative feelings and whether it is visually-balanced.

The second stage is search for means of navigation and attempt to "understand" the informational structure of a portal. To allocate the basic keys of attention, main and secondary information. Thus, the better you help the user – distribute zones of attention, structure the information and not to overload with excessive information – the more pleasant impression you'll make upon your potential user.

The next stage is the direct perception of information, its quality and correspondence with the user's needs. Let's try to understand these stages more in detail.

One of the basic features of the portal design is its appearance. First of all it is style, quality and quantity of graphics, and visual structure. Let's begin with the latter one. The visual structure of a portal is one of the basic keys to such undefined but quite frequently used definition as "understandable". It is necessary to define exact zones for information, graphics and free space. Yes. The free space is not only important, but also the extremely necessary factor for many users. It is not a secret that every person has some personal space. So the portal content with its personal space will be perceived as due. On the other hand it will help to avoid a visual overload.

As the portal is first of all meant to give information, its design shouldn't contain a large number of graphics. It has to emphasize the style of training depending on the users' age and the content. One remark should be made: the design should not be boring. That is colors should be bright but 2-3 colors will be quite enough. It is advisable to use shades of grey for color separation. As for graphical elements it is recommended to use background grey-to-white and grey-to-pale gradients and glossiness as well. As to the sizes – big (attracting attention) and small (supplementing) are recommended.

One more important part of a portal are buttons. Mostly it is the "Download" button. It should be big. Even too big. Possibly with an additional image of a package, box or archive, which size exceeds the size of the button. Presence of buttons, their size and style are characteristics of a modern portal design.

Proceeding from the scientific organization of the educational environment there is a need to provide a maximum of information with minimal fatiguability of learners. It is reached using font technics. Fonts from Sans Serif series: Arial, Verdana, Helvetica come back. Fonts of greater sizes for headings and the normal size for the basic text are more often used now. Attracting attention to headings and text splitting into small easily perceived blocks - is the keystone to success of a modern portal design.

The portal provides access to the systematized information resources of educational, educationally-methodical, scientifically-practical and reference sources located both on the portal ("primary resources") and on other portals and sites ("secondary resources", presented on a portal as metadescriptions).

The five year experience has shown, that now the most demanded portals are those on which there is a plenty of constantly updated and supported primary and secondary educational resources, active user support and constant updatings both an internal component - kernels of system, and external - the user interface.

It is also necessary to note, that the main page of a portal and its internal part - the user interface - differ both as for the informative component, and as for the purposes and zones of attention. Thus the approach to visual structure formation and to basic elements arrangement should also be different.

Individual means of navigation for each section of a portal and an opportunity of context search allow visitors to find the interesting information presented on a portal effectively and operatively.

The analysis and ordering of the basic approaches to development of information educational technologies have allowed to generate a number of principles of an educational portal design, to provide presence of intuitively clear user-friendly interface.

On a level of realization such objects as the Internet-portals, described by the complex data structure, highly developed hypertext space, dynamic interface, using of multimedia and great volume of the information, refer to the class of the developed information systems created on the basis of modern technologies. One of the basic problems of such web-systems is their integration into the information resources of the Ukrainian and world-wide scientifically-educational Internet. It is obvious, that the analysis of such systems should have a complex character, consider the parameters which have already become base for Internet, and the new realities dictated by the tendencies of the quickly developing IT-environment.

References:

- [1] Pisenko A. S. (2002) 'Development of an educational portal', Problems of education over the Internet, Journal – Moscow, Retrieved on 17 January, 2003 on http://vio.fio.ru/vio_09/cd_site/Articles/art_1_11.htm
- [2] Abramov A. G., Bukgakov M. V. (2005) "Portal 'IKT in education': two-year experience" IT-innovations in education, – Releases of the all-Russia research-and-practical conference, – Petrozavodsk, 27-30 June, 2005, PSU, pp. 21-23
- [3] Zahrjapin A. V., Nikishin M. B., Rodnikov A. V. (2005) "Internet portal for disabled persons" IT-innovations in education, – Releases of the all-Russia research-and-practical conference, – Petrozavodsk, 27-30 June 2005, PSU, pp. 89-91
- [4] <http://www.admhmao.ru/Discuss/> – Debating-society

[5] <http://www.i2r.ru> – Internet industry resource library

[6] <http://www.webdesignfromscratch.com> – Web-design complete guide

Authors:

1. **Belikov. S. B.**, Doctor of Technical Science, Professor, Rector ZNTU,

2. **Smoliarov A. V.**, Ph. D. candidat, Head of Distant Learning and Web Technologies Department

69063

Ukraine

Zaporizhzhya

Zhukovsky street, 64.

wert@zntu.edu.ua