

FyzWeb - Web Server for Support of Physics Education

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Abstract

The contribution gives information about FyzWeb (<http://fyzweb.cuni.cz/>), a non-commercial Czech web for support of physics education and popularisation of physics.

Introduction

The school systems all over the world are going through gradual changes in the recent years. There are requests for more active students' work and for the connection between the curricula as well as schools itself, the number of adults who are further educated is growing. The informal support of physics education is coming to focus as well as continuous education of in-service teachers and their partnership with physics institutes. All that is also enabled by the development of internet and web technologies. On the other hand, the low interest on science in developed countries continues. See e.g. proceedings [1] or materials from international meetings Physics on Stage at URL [2].

There are various possibilities how to respond to the situation described above. One of them is creation of web server which: • will offer *new, general and motivational information about physics* for teachers, students at all levels of school, as well as for non-experts, • will be *interactive and up-to-date*, • will content *annotated list of selected links to physical resources on the internet*, which will be regularly checked and updated, • will *provide the contact between students, teachers, physicists and other physics fans*, by that the creation of networks of peoples with interest in physics and its teaching will be supported (see Physics on Stage 1), • will *support the development of informal physics education*.

1 The Content of FyzWeb

FyzWeb (<http://fyzweb.cuni.cz/>) offers information from the world of physics and explanations of various physical phenomena as well as up-to-date information for physics teachers and students. One of its most popular parts is "Ask the Expert" page, where it is possible to give questions about physics and experienced physicists and teachers answer them.

Moreover, FyzWeb also should be a lively place where physics fans can share their knowledge and experiences and work together on solving different

physics problems (students) or on creating various teaching materials (teachers).

3 The Academic Background of FyzWeb

FyzWeb is being developed at the Department of Physics Education, Faculty of Mathematics and Physics, Charles University, Prague and it is supported by the School of Physics of that faculty.

To guarantee the high quality of physics content of FyzWeb a council composed of highly experienced physicists was developed.

4 The Editorial Board of FyzWeb

To maintain all editorial and technical work – such as preparing texts for web publishing, checking old links and searching for new ones, doing some translations, maintaining the server, programming of required scripts etc - an editorial team composed of undergraduate and postgraduate students of our faculty, futures physics teachers and physicists, guided by faculty stuff was set up.

The editorial board of FyzWeb cooperates closely with many in-service teachers from different types of schools.

Conclusions

That the project, that runs since 2000, is not only theoretical idea shows its impact to the area of physics education, the number of FyzWeb's hits (from January to June 2004 nearly three hundred hits in average per day) and the feedback from teachers and students (see [3]).

References

- [1] ed. LEACH, J. PAULSEN, A. Ch. Practical Work in Science Education – Recent Research Studies, Roskilde University Press, 1999
- [2] Physics on Stage, <http://www.physicsonstage.net/>
- [3] HOUFKOVÁ, J. Hypertextová a multimediální podpora fyzikálního vzdělávání – FyzWeb, (doctoral thesis) Faculty of Mathematics and Physics, Charles University Prague, 2003.