

суспільного добробуту та інституціоналізму ДН розглядається вченими як система, що приносить соціальну користь суспільству і державі [1], [4]. З позицій менеджменту – як інноваційний проект поліпшувачий якість освітніх послуг і вимагаючий значних інвестицій, зв'язаний з ризиками [7].



Рис. 1. Класифікація наукових підходів щодо економічних аспектів ДО

Одним з інструментів, що дозволяють врахувати при впровадженні системи ДН нормативний і декларативний, суб'єктивний і об'єктивний економічні аспекти, може стати програмно-цільове управління на рівні ВНЗ.

На жаль, наукових робіт в цьому напрямі недостатньо. Проблеми використання програмно-цільового підходу в управлінні розвитком системи ДО у ВНЗ є предметом подальших досліджень.

APPLETS AS WEB-PROGRAMS OF EDUCATIONAL PURPOSE

К.Ю. Вергал, аспірант

Полтавський університет споживчої кооперації України

Global distribution and development of possibilities of the Internet created the terms to appearance and wide distribution of new educational product – electronic textbooks which allow to pass an educational material qualitatively in an electronic kind to the wide circle of readers. The purpose

of development of each textbook is to use in a complete the measure both modern computer technologies and multimedia possibilities, for example, tables, charts, graphs, diagrams, audio and videotape recordings and others. Such graphic tools play a substantial role in cognitive-intellectual activity of students.

The important advantage of modern technologies in terms of the education is the possibility of involving the dynamic conversational programs, which not only illustrate notions and definitions of the educational course, but also stimulate the students' interests, thus increasing efficiency of the educational progress.

In terms of such dynamic illustrations there are the java-applets. It's a product of the object-oriented language of Java. In general case, applets [2] are small additions, which are placed on the servers of Internet, are transported to the client on a network and are automatically set and started from the place, as a part of the document of HTML. As an applet it can be either a small program or a large, difficult, interactive, for example, with some information on a site, where this applet was loaded from.

Applets allow to insert into a document, that is spreads in network, margins contents of which changes in course of time (for example, current date, current currency exchange rate), making it an animated cartoon. Such Web-programs can be introduced, as a calculator, transformer of expressions and others. One of the widespread uses of applets are toys on sites.

The such widespread usage of java-applets is related with the features of its functioning. You also can see the advantages of these programs, like [5]:

- the rapidity in the use. The small sizes of java-applets allow to the programs to be quickly loaded and operated;
- practicality. The programs have simple syntax and are built to the HTML-page with a few proper tags;
- unconcern and reliability. Applets do not have an access to the resources of computer which they are loaded on, that limits the risk of skidding of virus and damage of the data. In addition the language of Java supports 4 levels of defence. As the recent comprehensive researches showed on safety of Java-applets [1, 3], this safety measures are so far enough, for safe distribution and work of these programs.;
- availability. An applet does not depend on the instrument room platform of a user [4]. The only limitation for the work of such programs is the presence of the special browser, in which built-in virtual language of Java, for example, Netscape Navigator, Microsoft Internet Explorer or Sun Microsystems' HotJava. But according to the statistics about 95% users have such browser;
- mobility. The usage of the applets simplifies the procedure of exchange of on-line tutorials, opening new possibilities for the development of general projects. Besides it is possible to refer the support of national

alphabet to advantages, as the java-programs were developed specially for the Internet. And this description is very important for the creation and development of domestic educational products.

During the last years these positive program descriptions of applets draw attention first of all to the things that allow to create the program of educational purpose, which can be placed for comprehensive access on Web-pages or as dynamic illustrations on the pages of electronic textbook, reviving the learnt theoretical material. Such a use can make high-quality alterations to organization of the educational process.

At first, apart of the ordinary illustration to the maintenance, applets offer the two-way communication. That, in place of an observer, as it more frequent happens in during the work with theoretical material, we have a user-researcher which occupies active positions in the process of studies due to the conversational mode and dynamic change of interface. An applet not simply loses the same scenario, but depending on the choice of the parameters of the explored phenomenon allows to look after different variations of the described process, comparing the got results.

Secondly, java-applets allow to illustrate the experiments and phenomena, reproducing their separate details. A computer gives possibility to recreate the simplified model. Thus it is possible to include stage-by-stage the additional factors which allow to complicate the process.

Thirdly, applications of such programs allow to form abilities and skills necessary for conducting the real experiment.

The use of java-applets as models to the expounded theoretical material, creation of the new programs-illustrations of the known phenomena for their research is such an application of the programs-applets which are wide-spread abroad. A variety and amount of such programs is impressive. Due to ease of programming in the process of creation of applets both students and teachers are involved. Applets created by them allow to explore the phenomenon in the dynamic mode and more frequently concern the mathematical and physical phenomena, less economic and statistical calculations. Each such program has a description of functional possibilities of applet and instruction on their use.

As result, it is possible to remark that among the domestic products in a global network the Internet, you can see the shortage of such programs. The applets of the educational purpose occupy the last positions, while they have a real chance to become a new tool for studies.

Литература

1. Dean D., Felten E. W., Waliach D. S., «Java Security: From HotJava to Netscape and Beyond», Proc. Symp. Security and Privacy, IEEE CS Press, Los Alamos, CA, 1996, pp. 190-200.

2. Gosling J., «The Java Language Environment», A white paper, Sun Microsystems, Mountain View, CA, 1995; <http://java.sun.com>
3. «The Java Language Specification», technical report, Sun Microsystems, Mountain View, CA, 1995; <http://java.sun.com>
4. «The Java Virtual Machine Specification», technical report, Sun Microsystems, Mountain View, CA, 1995; <http://java.sun.com>
5. Вергал К.Ю. Програми-ілюстрації до електронного підручника з математичного аналізу // Наукові записки: Матеріали звітної наукової конференції викладачів, аспірантів, магістрантів і студентів фізико-математичного факультету. – Полтава: ПДПУ, 2005. – 315 с.

ИСПОЛЬЗОВАНИЕ ВИДЕОКОНФЕРЕНЦСВЯЗИ В УЧЕБНОМ ПРОЦЕССЕ

**А.В. Бондаренко, инженер-электронщик,
«Спецвузавтоматика», г. Харьков**

В докладе рассматривается способ реализации дистанционных технологий обучения с использованием видеоконференцсвязи

В связи с бурным развитием информационных технологий при одновременном снижении стоимости их внедрения появилась возможность по-новому подойти к процессу обучения. Так, например, во всем мире широко используется дистанционное образование. Современное оборудование позволяет с легкостью применить эту методику и на Украине. Один из способов ее реализации – это применение системы видеоконференцсвязи, которая подразумевает двухсторонний обмен видео- и аудиоинформацией, а так же мультимедийных данных между многими участниками, которые разделены территориально. Такой обмен происходит в реальном времени и с очень высоким качеством.

Для развертывания системы видеоконференцсвязи необходимо установить у пользователей оконечное оборудование, которое включено в единую информационную сеть организации либо в сеть Интернет и произвести подключение к конференции.

Преимуществами такого подхода являются:

- возможность выбрать конфигурацию оборудования под конкретно заданные цели;
- легкость развертывания системы;
- возможность централизованного управления конференцией;
- настройка отображаемой на экране информации у каждого участника;
- высокое качество изображения и звука;
- возможность дистанционного управления камерами;
- возможность проведения аудиоконференций;