УДК 378.147:004
ВАК 13.00.08
РИНЦ 14.85.09

Peter Schmidt, Ján Pittner

Smart off-line webinar for distant education

The article is devoted to searching the ways of effective development of modern electronic courses using smart presentations in teaching net technologies for university students considering difference in students' input knowledge and their initial level.

Keywords: *distance education, interactivity, webinar, higher education, net technologies.*

СМАРТ ОФЛАЙН ВЕБИНАР ДЛЯ ДИСТАНЦИОННОГО ОБУЧЕНИЯ

Статья посвящена повышению эффективности современного электронного учебника на основе использования «умных» презентаций при преподавании сетевых технологий студентам вуза с учетом дифференциации и уровнего обучения.

Ключевые слова: *дистанционное обучение, интерактивность, вебинар, высшее образование, сетевые технологии.*

Recently, there has been strong pressure on education from business point of view. Companies and private businesses demand, that qualitative level of students should cover their needs. This kind of pressure is felt by all departments and specializations. Only the intensity was different depending on the extent to which external capital involved in these forms of education. The transformation of these requirements in the learning process to meet the needs of students ran slowly. Unfavorable situation was improved a little bit using e-learning. Thanks to e-learning we can provide information to unlimited number of students in relatively short period of time, but unfortunately the number of students who prefer learning through e-learning is still relatively small. On the other side, creating these e-learning programs or courses requires considerable amount of pedagogical and vocational skills. Clearly, the e-learning programs brings in some benefits, but is their effectiveness really that high, as we would wish? Are they used to the same extent as we would like? Unfortunately, the answer to these questions will probably be negative. What then, is the reluctance of students to use e-learning programs on a larger scale? Of course, there may be more answers to this question, from course quality to application of the latest technology.

When I looked at some courses, I found that most of the courses didn't catch my attention. I felt like I just read the textbook and teacher's notes. Something was missing there, even if some elements of interactivity were present. Courses were feeling impersonal and I missed the key human factor – interaction. Student will get discouraged a lot of times because of

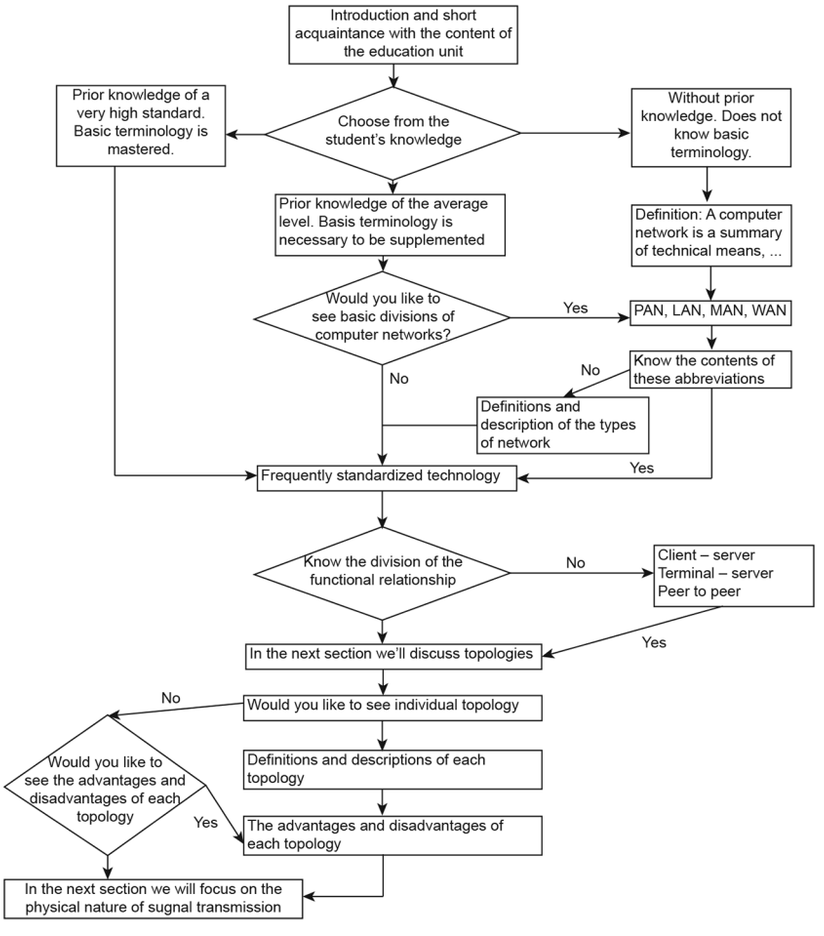


Figure 1. Flow chart

Peter Schmidt,
PhD, Ing. Mgr.
E-mail: schmidt@atg-slovakia.sk
University of Economics in Bratislava
Faculty of Informatics
Department of Applied Informatics
http://www.euba.sk/

Питер Шмидт,
доктор философии, Ing. Mgr.
Эл. почта: schmidt@atg-slovakia.sk
Университет экономики в Братиславе
Факультет информатики
Кафедра прикладной информатики
http://www.euba.sk/

Ján Pittner,
PhD, Ing.
E-mail: janci.pittner@gmail.com
University of Economics in Bratislava
Faculty of Informatics
Department of Applied Informatics
http://www.euba.sk/

Ян Питтнер,
доктор философии, Ing.
Эл. почта: janci.pittner@gmail.com
Университет экономики в Братиславе
Факультет информатики
Кафедра прикладной информатики
http://www.euba.sk/

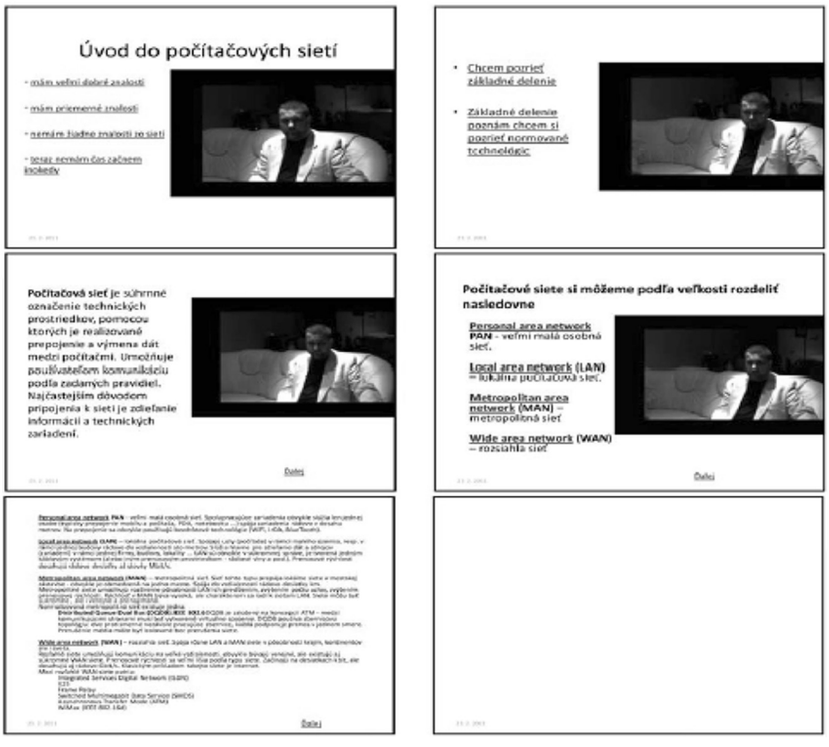
vague or opaque divisions to be taken in order of finding the part, that he is interested in. This inefficiency is largely reason that e-learning is becoming sidelined.

I was wondering how to make courses more interesting to involve the human factor, so that student would feel, that teacher is really communicating with him and intesty, difficulty

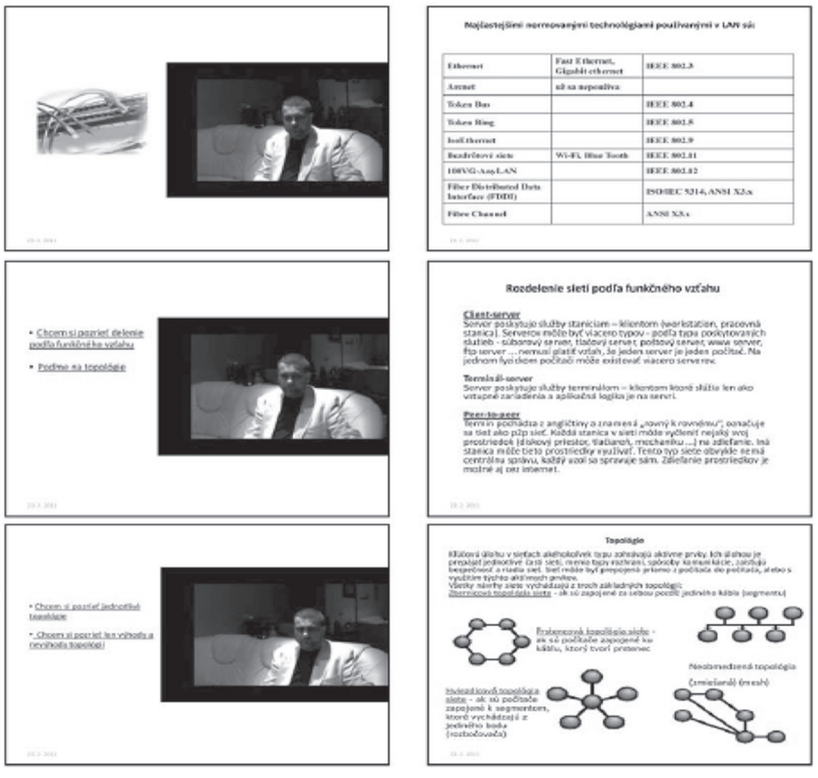
Table 1.

Script and text portion of each movie

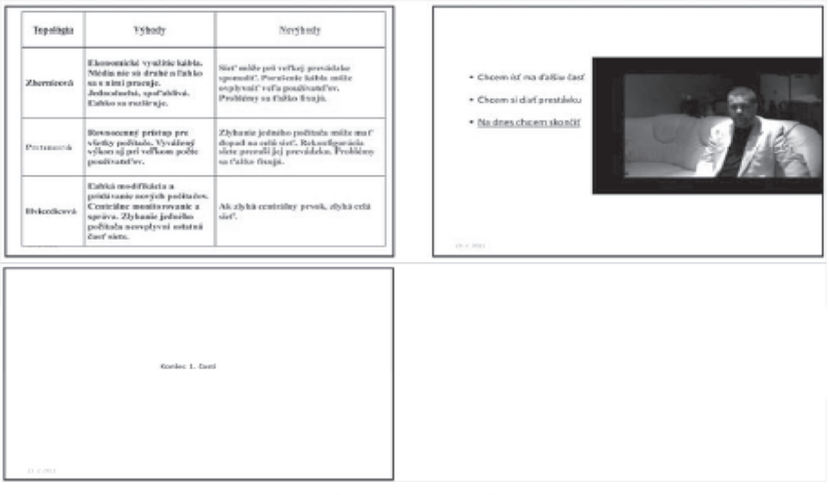
Slide no.	Video text
1	Let me welcome you to an introductory course on computer networks. TO effectively run our course, you can choose which category is the right for you. If you already have an experience in the field of networks, we can be done pretty soon. If you think your knowledge is average, we will need to work with you a little bit longer. If you consider yourself among beginners, please start with this course only if you have a lot of time and you are not in hurry. If you don't have time now, we can meet another time. Please select your option.
7.	Oh I understand. Your skill level is already at the appropriate professional level, so we would like to show you table of frequently used technology.
9.	We came to a different computer network topologies. If you want to go directly to the topology, please click here and take a look, but I recommend looking at division by the functional relationship, expecially for those, who do not consider themselves as experts.
11.	Once we are talking about topologies, you can see them yourself or you can just look at their advantages and disadvantages. The table is clearly divided into red and blue; blues are advantages and reds disadvantages.
14.	You were very good today, we are at the end of first part. Are you fit and ready to take on more, or would you like to take a break? Choose your path.
2.	So you consider yourself intermediate. Very well. Now you just simply choose, whether you want to look at the basic division of networks (like PAN, LAN, MAN etc.) or skip straight to standard technologies? Please choose.
3.	I see that you considered yourself a beginner. Maybe you know more than you think! For sure you have already uploaded pictures from your cell phone into the computer and doing that, you created a PAN type network. Here is a brief definition of a computer network.
4.	Please have a look at different kinds of networks. On the next slide, we can look at their characteristics. If you are connected to the internet, you can click on the individual terms and see what wiki tells about them. I'm waiting for your selection



Picture 1. Presentation Example



Picture 2. Presentation Example



Picture 3. Presentation Example

and extent of education itself is determined by himself. I worked up to the fact, that using better algorithmization when creating the course could lead to course, that is more interactive, that would adapt to student as much as possible. Of course everything has it's price. Preparing this kind of e-learning program is much more difficult, because it is necessary to record all the expected communicating with teacher, which is possible only if entire course is analyzed on the lowest level.

For this, we can use any of the tools for creating diagrams, for example Visio, by which we can create a flowchart of entire educational unit. Create flow chart (Figure 1) will serve to create scenario itself.

After the flowchart, we create presentation according to the flowchart and write the script and text portion of each movie. Because of the fact, that the learning process can be carried out through several lines, it is best to select the number of each powerpoint slide for every video text.

Probably the hardest part is creating and cutting the movies themselves, so that the final product would feel like teacher is communicating with students. If there is a studio and professional help available, it is considerably easier, but in case there isn't we can get by with basic tools that Windows provide. There can be a problem with some video formats, that store files in .mov format, which is not playable without downloading codecs. If that is our situation, then it is smart to use any kind of video convertor and convert it into wmv or flv. If we use Power Point, then wmv is our format, but if we want to use flash, flv is preffered. For subsequent cutting we can use any conventional cutting programs, but you can get away doing it through Windows Live Movie Maker. Again, it is recommended to identify individual sequences by slide number. By placing the sequence in the presentation and setting links in the presentation, we are almost done (See Pic.1, Pic. 2, Pic. 3).

The attached sample shows how only basic options of Power Point can provide the desired effect. If the presentation is made in Flash, students won't have to download the presentation file but can play it directly in their browser instead. With a suitable modules is then the integration of such a presentation into e-learning system like Moodle very easy to do.

The use of the interactive video in e-learning presentation can help students especially for distant and external programs as the possibility of personal contact with the teacher is very limited.

References

Kultan J., Goloborodko A.J., Čurikov M., P. Kolosov D.V. Использование видеоконференций в международном сотрудничестве вузов; Актуальные проблемы развития профессионального образования в России, Межрегиональная научно-методическая конференция 22–24 – ноябрь, Chabarovsk 2010; Chabarovsk Vydavateľsctvo DVGUPS, 2010; ISBN 978-262-00552-9