

# **IMPLEMENTÁCIA ELEKTRONICKÉHO VZDELÁVANIA ŠTUDENTA DO AISU**

## ***IMPLEMENTATION OF ELECTRONIC LEARNING PROCESSES IN THE (AIS) ACADEMIC INFORMATION SYSTEM***

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### **Abstrakt**

Akademický informačný systém by nemal byť len formálnou byrokratickou časťou štúdia zaznamenávajúcou dochádzku a známky, ale by mal zasahovať aj do samotného štúdia a zlepšovať celý výučbový proces. Implementovanie aktívneho E-learningu s feedbackom sa stalo moderným trendom. Pridelovanie domácich úloh pomocou AIS, alebo možnosť porovnávania svojich študijných výsledkov s výsledkami kolegov by mohlo viac motivovať študentov k aktívnej príprave, učeníu sa najnovších poznatkov a štúdiu počas celého roka, nie len pred skúškou.

Akademický informačný systém 2 (AIS2) používaný u nás na LFUK bol spustený 1 septembra 2009 na všetkých trinástich fakultách Univerzity Komenského naraz. Zapišať sa na skúšky na všetkých ústavoch a klinikách začalo byť možné v letnom semestri 2009/2010. Študenti prijali túto inováciu s nadšením a s entuziazmom očakávajú nové moduly a ďalšie služby.

Už počas prvého roka funkčnosti AIS 2 začalo byť jasné, že systém štúdia na lekárskech fakultách je odlišný a má svoje špecifiká. Čo je dostatočne efektívne pre ostatné fakulty a odbory nemusí byť dosť dobré pre lekársku fakultu. Študenti majú svoju vlastnú predstavu a očakávania od akademického informačného systému. Pomocou ankety na 288 študentoch sme sa snažili objasniť ich potreby a pohľady na akademický informačný systém.

**Kľúčová slova:** AIS, AIS2, e-learning, študentská anketa

### **Abstract**

Academic information system does not have to be only the formal part of the school attendance, but it could in a significant way help to improve the studying process. Implementing e-learning in an active way, not only offering presentations from the lectures, has become a continuing trend. Assignment of homework tasks with the system or showing colleague's test score online could motivate students to stay in touch with actual knowledge and learn continuously, not only for passing the exam.

Our centralized academic information system (AIS2) was launched on the 1st September 2009 simultaneously on all 13 faculties of Comenius University. Signing in for examination dates on all departments of the Medical Faculty in Bratislava was for the first time possible in the summer term 2009/2010. Students appreciated this improvement with enthusiasm and are looking forward for new modules of this system.

During the first year of AIS2 live functionality it became obvious that the study system on medical faculties is different and has its specificities. What is sufficient for a common faculty is not necessarily good enough for the medical faculty. Students have a clear idea of what they expect from the electronic academic system. Inquiry between the students tried to ascertain their views on academic information system and their needs.

**Keywords:** AIS, AIS2, e- learning, student's inquiry

## **Introduction**

Our centralized academic information system (AIS2) was launched on the 1st September 2009 simultaneously on all 13 faculties of Comenius University. It is a complex information system designed primarily to manage all three degrees of university education and to support science and research. The Center of Applied Computer Science at the University of P. J. Šafárik in Košice runs development of AIS since 1997. Step by step it has been implemented at 12 institutions. Since 2005, AIS became a part of central development IT project supported by the Ministry of Education, Science, Research and Sport of the Slovak Republic. University of Economics in Bratislava, Academy of Performing Arts in Bratislava and The Academy of Fine Arts and Design in Bratislava also entered this project. A new improved version of the AIS called AIS 2 has been developed. It responds to new changes in the applied technologies and increased skills of nowadays computer users. University can actively join the development of AIS through participation in working groups. The result should be a product that is sufficiently flexible, and applicable to various colleges and universities.

The need for an information system on Comenius University has been clear for some time. Discussions about its complexity, functions, modules, and provided educational information's took several years. Each Faculty was involved in planning of a new system called student II. After the failures of public procurements in 2009 Comenius University entered the IT project supported by the Ministry of Education.

## **Experiences**

The academic information system is always a big help for the student affairs department, as for the students and teachers. But during the first year of AIS2 live functionality it became obvious that the study system on medical

faculties is different and has its specificities. What is sufficient for a common faculty is not necessarily good enough for the medical faculty.

### **Benefits of information system such as for student and teacher:**

- Bigger comfort - the possibility of better education through computer and Internet.
- Information system minimizes student affairs department visits, because most operations like signing in for the new academic year can be done via computer.
- It provides students with detailed information on subjects and makes the electronic registering for exams possible.
- The student will not have to flip through the yearbook.
- Teacher can see which students wrote down his subject.
- Links or electronic information sources can be provided to the student together with information's about the conditions for gaining credits and taking exams.
- Teacher inserts all students' evaluations into the system, which saves him time and work with the paper evaluation reports.
- And all this in a web browser interface - no need to install anything

### **The reality on a medical school:**

- Signing in for the new academic year can be done via computer, but the student must still visit the student affairs department to sign the bureaucratic operations. Electronic signature is not enacted in Slovak Republic.
- Signing in for subjects is just a formality. The student cannot actually choose subjects, prerequisites prevent him from doing it.
- Flipping through the yearbook is faster than searching in the Oracle interface.
- Teacher knows well that all 300 students in one year will choose his subject, because they cannot continue their studies without it.
- AIS does not save teachers time or work with evaluation reports, because the teacher has to do the same paper work with or without AIS.
- Medical faculties have their clinics in hospitals. Old Internet browser versions on hospital computers are preventing teachers from using AIS.

## **What is important for the students**

Expectations are huge, taking in account the communal online discussion and endless waiting during last decades. Many e-learning ideas and improvements are still waiting for realisation. Some questions about intellectual property rights or users motivation remained unanswered. Signing in for examination dates on all departments of the Medical Faculty in Bratislava was for the first time possible in the summer term 2009/2010. Students appreciated this improvement with enthusiasm.

Discussing all the possibilities and functions of AIS, it became clear, that there are two functions essential for students. Signing in for exams electronically and access to educational sources. Academic information system does not have to be only the formal part of the school attendance, but it could in a significant way help to improve the studying process. Implementing e-learning in an active way, not only offering presentations from the lectures, has become a continuing trend<sup>1</sup>. Assignment of homework tasks with the system or showing colleague's test score online could motivate students to stay in touch with actual knowledge and learn continuously, not only for passing the exam. Students have a clear idea of what they expect from the electronic academic system. They do not see AIS as only processing of electronic study agenda for the University, but they want easier accessible e-content as a part of the system. Inquiry between the students of Medical Faculty of Comenius University and students of other faculties tried to ascertain their views on academic information system and their needs.

388 students participated in the inquiry, 226 from Medical Faculty of Comenius University (LFUK), 160 from other universities in Bratislava. The goal of the inquiry was to find out, in which services and information sources are students interested and if there is a difference between LFUK students and students from other faculties.

In the first question home screen screenshots from AIS2 (Picture 1) and the academic information system of Faculty of Electrical Engineering and Information Technology of the Slovak University of Technology (FEI) (Picture 2) was compared. Reaction was about the same in both groups. Around 70% found the AIS2 home screen screenshot more comprehensible.

Vice versa the screenshot showing the work with academic information system on FEI (Picture 3) was considered to be more comprehensible as AIS 2 (Picture 4). 62% of LFUK students and 54% of other student voted for it.

All of the students would like to have the possibility to download PowerPoint presentations from the lectures.

5% would like to have a electronic book for online reading accessible in their academic information system, 20% would like to have it for just downloading and 75% for online reading and downloading.

Only 87% of the students would like to have their homework's for next practice disclosed in AIS.

93% would like to have disclosed the conditions for gaining credits and exams in AIS.

In the next question we asked if the students would like to see the classmate's tests results and vice versa. In the LFUK student group 5,5% answered yes, 33% no and 61,5% would like to decide, if they show them or not. In the other group 7% answered yes, 39% no and 54,% would like to decide.

55% of the LFUK student group would disclose their date of the exam, 8% would not and 37% would like to decide if they disclose it or no. In the other group 70% would disclose their date of the exam, 5% would not and 25% would like to decide.

20% of the LFUK student group would like to evaluate the school employees via AIS, 17% not and 63% would do it only if it guarantees their anonymity. 14% of the other group would like to evaluate the school employees via AIS, 14% not and 72% would do it only if it guarantees their anonymity.

In the case of AIS technical problems, in the LFUK group 67% would like to solve it via e-mail, 5% through student affairs department, 28% with a NON-STOP telephone line. In the other group 71,5% would like to solve it via e-mail, 6% through student affairs department, 22,5% with a NON-STOP telephone line. Nobody would like to solve AIS technical problems with a letter.

In the LFUK group 75% would be willing to pay for sms notification service. (e.g. notification of a released date for an exam, information of the test result, notification from the student affairs department) In the other group only 50% would be willing to pay for such a service.

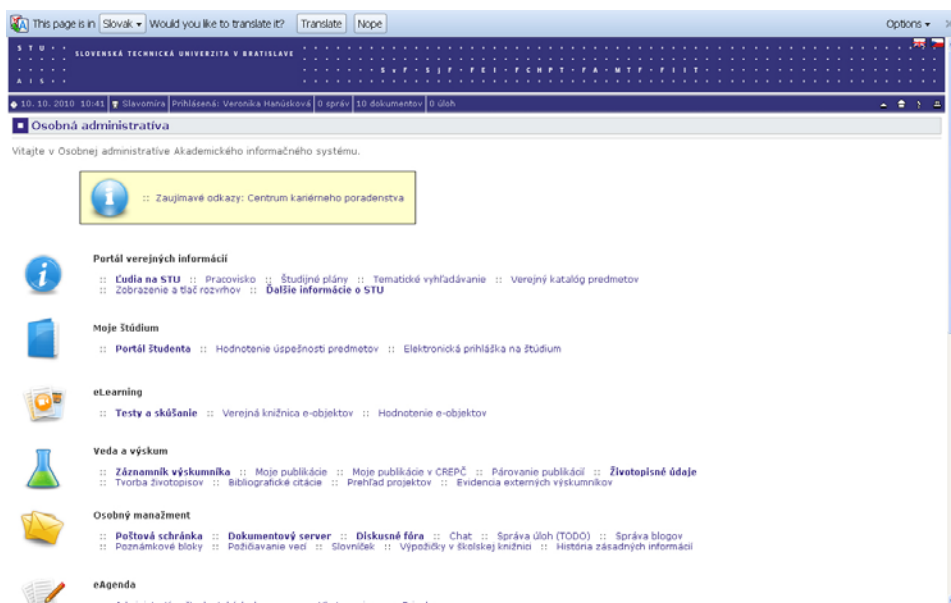
In the LFUK group 58% would be willing to pay for special postal service, but only 37% in the other group. The spacial postal service means, that student affairs department would send the electronically submitted documents with postal service to the student. (e.g. Confirmation of school attendance and other documents with signatures and stamps that can not be sent electronically) The student would be not forced to come personally to the student affairs department.

## Conclusion

Students welcomed AIS with enthusiasm and are looking forward for new functions. In the questioned group there is a difference between LFUK students and students from other faculties. The group of non-medical students seems to be more open in the question of their privacy. Exception may be the school employee's evaluation. Every student wants more features in AIS. Academic information system does not have to be only the formal part of the school attendance, but it could in a significant way help to improve the studying process. AIS 2 is going to be extended with new modules, expected date of full deployment is 31.08.2010.



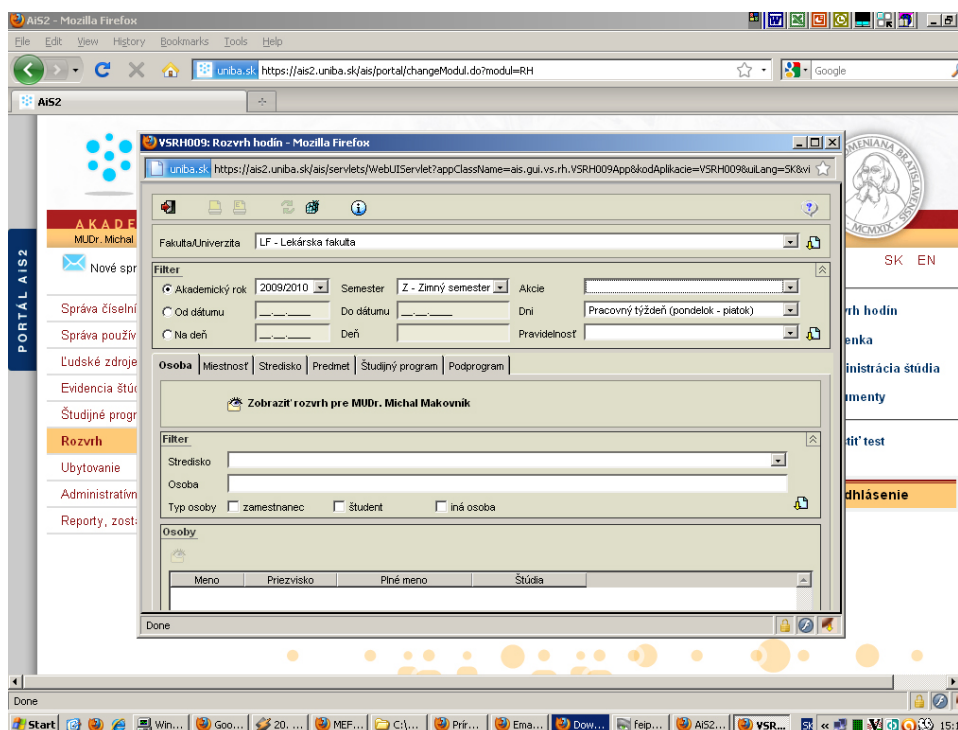
Picture 1: Home screen screenshot from AIS2



Picture 2: Home screen screenshots from academic information system on FEI



Picture 3: Screenshot showing the work with academic information system on FEI



Picture 4: Screenshot showing the work with AIS2

## Literatura

- [1] Kofránek J., Development of educational simulators. What is behind the curtain?, *Mefanet report 01*, pp. 60–72, 2008.