Notes on Tempus project
"Network Education at Faculties
of Sciences in Serbia" and
advices on how to record the
talking heads

Durres, September 9, 2008

#### Andreja Tepavčević & Branimir Šešelja

Department of Mathematics and Informatics
Faculty of Science
University of Novi Sad
Serbia



#### Network:

- Faculty of ScienceUniversity of Novi Sad
- Faculty of Mathematics University of Belgrade
- Faculty of Science University of Kragujevac
- Faculty of Science University of Niš

## Network education at Faculties of Science in Serbia

- Tempus Structural and Complementary Measures SCM C036A06
- Project objective:

To contribute to the actual changes in high education in Serbia, by improving specific contemporary aspects of teaching, communication and studying possibilities.



#### Project partners:

#### EU partners:

- University Mateja Bela, Faculty of Natural Sciences,
   Banska Bystrica, Slovakia (Grant holder)
- Lappeenranta Technical University, Finland
- University of Oviedo, Spain





Partners from West Balcan Countries (Serbia)

- University of Novi Sad (coordinating institution)
- University of Belgrade
- University of Kragujevac
- University of Niš





# Tempus SCM project ❖OUTCOME1 Establishing Internet based network framework among faculties of sciences in Serbia. ❖OUTCOME 2 Preparing joint courses for all universities in Serbia (about 10 in this pilot phase). ❖OUTCOME 3 Preparing Internet based network framework for joint courses EU - Serbia.

#### Main activities

- Training course in Novi Sad
- Decision about courses
- Training visit of teachers from Serbia to Slovakia
- Preparation of courses and of teaching material and implementation of courses
- Training visit of teachers from Serbia to Spain
- Training visit of teachers from Serbia to Finland

#### Transfer of good practice:

#### **LUT, Finland:**

- Teaching Mathematical Modelling National Network Project
- ◆ Participating institutions
   Tampere University of Technology
   Helsinki University of Technology
   Lappeenranta Univ. of Technology
   University of Helsinki
   University of Joensuu
   University of Jyväskylä
   University of Kuopio
   University of Oulu
  - University of Tampere Centre for Scientific Computing

- University of Oviedo, Spain belongs to Group 9 of Spanish universities, which have joint an Internet-based study programmes.
- Faculty of Sciences and Mathematics, University Matej Bel Banska Bystrica have developed teaching and communication with students through Moodle.

#### Requirements:

- 4 video cameras (with microphones and tripods).
- Software for making internet presentations (Microsoft producer or Adobe premier,...).
- At each university computer specialist trained to technically prepare courses.

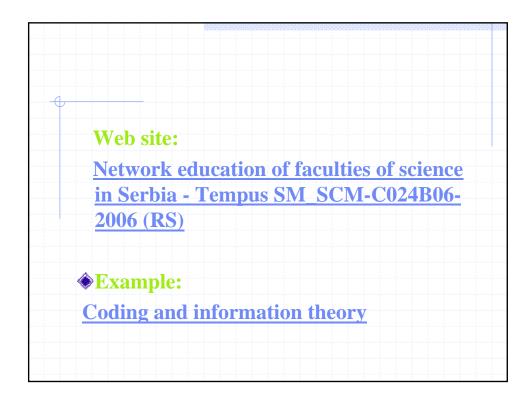
- Teachers should be trained for some basics methods on preparing lectures for Web.
- Moodle platform at the university.
- Teachers and students should learn basic elements of Moodle (or other similar course management system).

### Methodology of preparing courses

- Introductory lectures for every course. Mixed video and power point presentations.
- Prepared material for every lecture: power point presentation and written teaching material (text books).
- Student from one university can chose a course from another university.

- Student can access the course material through Web.
- Communication teacher-students and students-students is done by Moodle as well as by e-mail, forums, chats etc.

- Courses from higher years of studies are chosen:
- Smaller number of students in each center.
- Lack of teachers for specialized courses.
- Students of higher years are more familiar with communication through computer.



## Open questions: Formal aspects (recognition of courses chosen at other university). Distance knowledge evaluation. Practical question (in Serbia): Does every student has a computer OR whether there are computers at the department for students' disposal?

Student questionnaire (for students on first year of studies at related 4 universities).

#### Examples of questions:

- Do you have your own computer?
- Do you have computer at your disposal at the department?
- Do you have your e-mail address?
- Do you already have communication with some of your teachers through internet?
- What do you think about distance learning?
- What do you think about evaluation of knowledge through internet?

- At University of Novi Sad (Computer Science) 100% of students have their own computer, 100% of them had communication with teachers through internet, etc.
- ◆ At University of Kragujevac 69.57% have their own computer, 47.83% can use computer at the department, 0% had communication with teachers through internet.



Not all students at other universities have their own computers and departments do not have enough computer classrooms.

Advices on how to record the talking heads

#### Guidelines-lectures

Lecturer should use slides or digital presentation, like PowerPoint.

Blackboard should be avoided.

- Pure (static) PPT slides should be used
  - Better not (animated) gifs, movies (links to additional materials should be provided instead)
- Each slide should have name and number.
- All material should be ready before the video lecture.

#### Guidelines-lectures (cont.)

- Slides should be shown in order and never back (if some slide should be repeated, then it should be repeated in the presentation).
- Each slide should be shown long enough so that students have time to go through it's content.
- Questions that students make should be repeated.

#### Guidelines-lectures (end.)

- Lecturer should look to the audience and not to the slides
- Should be passionate (no talking heads)
- Value should be added (i.e., not just read the slides).

#### Guidelines - cameraman

- Digital format for shooting the video, dv, should be used
- Good microphones should be used.
- They should be tested before shooting.
- Time stamp should be made every time slide changes.
- Plastic transparencies should be scanned as gifformat and added later to the slideshow.
- Data file of the cassette for archiving purposes should be made.

#### Options: studio vs. lecture hall

#### **Studio**

- Quiet
- Lightning is easy to adjust
- Steady shooting
- No audience
- Might start to look like weather forecast

#### **Lecture hall**

- Noisy, due echoes and audience
- Lightning might be problematic
- Living situation
- Audience
- More like 'real' teaching experience

## Important things not to forget

- Agree beforehand some signal what cameraman shows to the lecturer when tape starts to end.
- Make sure you have rights to use video material, copyrights.
- Charge batteries beforehand both for camera and for wireless microphones.
- Reserve extra tapes in case lecturer does not want to stop.

#### Some things to remember

- Agree beforehand some signal what cameraman shows to the lecturer when tape starts to end.
- Make sure you have rights to use video material, copyrights.
- Charge batteries beforehand both for camera and for wireless microphones.
- Reserve extra tapes in case lecturer does not want to stop.

