THE CROATIAN ACADEMY OF SCIENCES AND ARTS
The Department of Biomedical Sciences in Rijeka
THE UNIVERSITY OF RIJEKA

COVID – 19 MESSAGES II

HIGHER EDUCATION IN COVID-19 CRISIS: CHALLENGES AND OPPORTUNITIES

Rijeka, October 6, 2020
9,00 am
University Campus Rijeka, Faculty of Civil Engineering
Lecture hall G-003, Radmile Matejčić 3, Rijeka

Organizers

THE CROATIAN ACADEMY OF SCIENCES AND ARTS
The Department of Biomedical Sciences in Rijeka

THE UNIVERSITY OF RIJEKA

Program Committee of COVID -19 MESSAGES I-V

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Sandra Kučina Softić, Nataša Hoić Božić

Registration: online via registration form for online and onsite participants

Event address for ZOOM attendees will be sent to all registered participants by e-mail

Free admission for both registrations, but note that the capacity of the lecture hall is restricted. Once all spaces have been filled, no more onsite registrations will be permitted.
Refreshments are with no charge.
Parking is free and provided in the building of Student Center Rijeka (Radmile Matejčić 5)

Information

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PROGRAM
OPENING
(9,00 – 9,30)

I. INTRODUCTION

Snježana Prijić Samaržija, Rector of the University of Rijeka, Rijeka, Croatia
Covid-19 Symposia: The Aims and Scope

Daniel Rukavina, Croatian Academy of Sciences and Arts, Head of the Department for Biomedical Sciences in Rijeka, Rijeka. Croatia
Covid-19 messages in higher education

Marta Žuvić, Vice-Rector of the University of Rijeka, Rijeka, Croatia
Learning and Teaching at UNIRI 2020/21 – Facing new normal

9,30 – 12,00 h

II. KEYNOTE LECTURES
HIGHER EDUCATION: NEW INSIGHTS IN CRISIS TIME

Chairman: Marta Žuvić

Wim Van Petegem, Catholic University of Leuven, Leuven, Belgium
The agile digital scholar: New competences for teaching in the digital age

Michael Gaebel, Higher Education Policy Unit at European University Association
Digitally enhanced learning & teaching – In times of crisis and beyond

Sandra Kučina Softić, University of Zagreb, University Computing Centre SRCE, Zagreb, Croatia
Going online - Lessons learned from Croatian higher education perspective

Ulf-Daniel Ehlers, Baden-Wurttemberg State University in Stuttgart, Stuttgart, Germany
The future of learning and higher education

Break for refreshment: 12,00 – 13,00

13,00 – 14,30 h

III. EXPERIENCE AND GOOD PRACTICE AT UNIVERSITY OF RIJEKA

Chairman: Sandra Kučina Softić

Nataša Hoić Božić, University of Rijeka, Department for Informatics, Rijeka, Croatia
E- Learning at the University of Rijeka – Potentials of Covid-19 Crisis

Vanja Smokvina, University of Rijeka, Faculty of Law, Rijeka, Croatia
UNIRI and Covid-19 Crisis: a chance we should take

Nelida Črnjarić-Žic, University of Rijeka, Faculty of Engineering, Rijeka, Croatia
Distance learning experience in large students group

Vedrana Mikulić Crnković, University of Rijeka, Department for Mathematics, Rijeka, Croatia
Opportunities in Moodle based E- teaching of Mathematics

Coffee break: 14,30 – 15,00

15,00 – 16,00 h

IV. ROUND TABLE DISCUSSION

Chairman: Marta Žuvić

Panelists: Wim Van Petegem, Manel Jimenez Morales, Sandra Kučina Softić, Nataša Hoić Božić, Snježana Prijić-Samaržija

ABSTRACTS

The Agile Digital Scholar: New competences for teaching in the digital age

Wim Van Petegem
Catholic University of Leuven, Leuven, Belgium

A Digital Scholar works in an academic environment, and is involved in research, teaching and (community) service. He or she uses (digital) skills at different levels, from simply using words to producing and sharing (multi)media with a larger audience. He or she has not only a position (and according identity) as an individual, but is also linked with others, up to being a global citizen. A Digital Agile Scholar shows mental and intellectual flexibility and feels at ease to move around in the digital world of today and tomorrow. He or she can take up different roles, from author, over storyteller, creator, integrator to networker. And he or she is able to identify own learning needs and how to find ways for personal development and professionalization, with or without digital technologies. Last but not least, a Digital Agile Scholar acts as a change agent, in the own academic environment and in society at large.
In this presentation we will give those willing to enhance their digital academic profile, some fundamentals to build on, some pointers and indicators to move forward, and some critical insights to reflect on. It is based on own personal experiences in academics, and further illustrated practical inspiring insights and examples from other Digital Agile Scholars. In this presentation answers will be given on questions how scholars can become more proficient in the digital age, how they can find ways to cope with the fast-moving new trends and possibilities of new technologies, how they can keep up with the pace and agility of the younger generation, the so-called digital natives or generation Z, in the digital world. Needless to say, the current pandemic calls for immediate action upon all scholars to acquire the necessary skills and competences to become a more Digital Agile Scholar, not only for now, but also for future challenges in teaching and learning.

Key words: digital scholar competences, mental and intellectual flexibility, learning needs identification, change agent

Digitally enhanced learning & teaching - In times of crisis and beyond

Michael Gaebel
European University Association

In response to the COVID-19 pandemic, European higher education pivoted practically overnight to remote provision of learning and teaching, and over the summer, it prepared for a mix of online, blended and hybrid provision into 2021, possibly even beyond. While nobody would seriously contest the stress, challenges and also damage that this change of course does to higher education institutions and their members, this has also been a key occasion for the development and mainstreaming of innovative learning and teaching provision and management.

The presentation will provide some data from the forthcoming DIGI-HE survey report. From March to June 2020 (within the framework of the Erasmus+ EUA-led project, DIGI-HE) the European University Association carried out a survey on digitally enhanced learning and teaching among higher education institutions across Europe. Coinciding with the lockdown and physical distancing, the survey results provide some information on the sector's crisis response, but mainly focussed on the status ante, and on a plan for the future. As a similar survey has been carried out in 2013, it gives some idea about progress made since then, and will discuss midterm and long-term development perspectives of European higher education learning and teaching, in consideration of, but not limited to, the digital aspects.

The online survey was open to universities and other higher education institutions across Europe. About 80% of the participating 368 respondents in 48 European countries are conventional universities offering mainly on-campus tuition, although the majority offered, already before the crisis blended and also some online learning, usually through short courses.

Despite the diverse sample, the survey confirmed broad agreement on common obstacles faced by higher education institutions, such as lack of staff resources, of digital infrastructure, of external funding opportunities and support for professional development as well as the difficulty devising a concerted approach for the entire institution. As for top enablers, the survey findings point to robust institutional strategies, proactive participation of staff and students, professional development and training and major investments in equipment and infrastructure.

One of the conclusions from the survey data is that investments in digital technology will have to put strong consideration on institutional strategy and governance, and the proactive involvement of students, teaching and non-teaching staff developments, in order to reach the aims of improved quality, flexibility and resilience of learning and teaching. This has also been confirmed by EUA's longstanding work with members on learning and teaching, and has been summed up under in previous project in European Principles for the Enhancement of Learning and Teaching.

Key words: Learning & teaching, digital, data

Going online – Lessons learned from Croatian higher education perspective

Sandra Kučina Softić
University of Zagreb, University Computing Centre SRCE, Zagreb, Croatia

With the outbreak of the COVID-19 virus pandemic and the closure of the Croatian higher education institutions in mid-March, classroom teaching and learning could no longer be held in physical spaces. In a rather short time higher education institutions had to move online and to ensure the continuity of teaching and learning and finalisation of the academic year. Those who have already used digital technologies and implemented e-learning into their teaching have more easily shaped teaching in fully online environment. However, those teachers who did not use digital technologies in their teaching now faced a great challenge trying to find which technologies to choose and how to use them.

Higher education institutions and teachers used the tools and technologies that were available to them at that time and enabled further teaching. Majority of them used the

national e-learning platform Merlin maintained by the E-learning at the SRCE and provided support and help to teachers, students and institutions with additional guidelines and materials for teaching and learning in online environment as well as with number of online trainings for teachers.
Looking back now it is clear that a lot has been done, the end of the academic year has been ensured, and new knowledge and experience have been gained regarding learning in the online environment and online teaching. However, it should be noted that the use of tools for conducting classical lectures in online environment (emergency remote teaching) is not online education. The previous period should be viewed as an experiment from which we need to learn, not as an example of how to proceed. It is also unlikely that it will be possible to return to the way we worked before the pandemic, we need to accept the new normality, as it is possible that similar situations will recur in in the future. For the most part, the transition to online teaching has not led to substantial changes in the educational process, but it has enabled new knowledge and insights. Not surprisingly, given the rush in which the existing way of teaching, predominantly classroom-based, had to move to an online environment, the required level of teaching and learning quality was lacking. In the coming period, the greatest emphasis must be on how the development of the new normal in higher education will affect the quality of education.
Therefore, it is extremely important at this time to plan and prepare the higher education system for similar situations in the future. It is necessary to revise the existing strategies and adopt new ones, to revise the study programs, provide teachers professional development for teaching in the online environment and ensure the necessary infrastructure.

Key words: digital technologies for L&T, national e-learning platform, emergency remote teaching, quality of education, teacher's professional development

The future of learning and higher education

Ulf-Daniel Ehlers
Baden-Württemberg Cooperative State University Karlsruhe, Karlsruhe, Germany

The NextSkills Studies call for rethinking higher education and propose clear-cut drivers for the development of the University of the Future. Explore four scenarios for the University of the Future.
The NextSkills Studies suggest a new framework for Future Skills which consists of 17 clearly defined Future Skills Profiles. In addition, the Future Skills Triple Helix reference framework has been developed, giving a foundation for the Future Skills.
Download Future Skills open access book at www.nextskills.org
Video series on future Skills: https://nextskills.org/library/videos-recordings/.

Key words: higher education, future skills, next skills, triple helix, survey

E-Learning at the University of Rijeka - Potentials of COVID-19 Crisis

Nataša Hoić-Božić
University of Rijeka, Department of Informatics, Rijeka, Croatia

Strategic implementation of e-learning at the University of Rijeka (UNIRI) has a tradition of more than 15 years. Already back in 2006, as part of the Tempus project EQIBELT, the "Strategy for the introduction of e-learning at UNIRI 2006-2010" was adopted as the first of its kind in Croatia.
The UNIRI Centre for E-learning was founded in 2009, which from the beginning dealt not only with technological but also pedagogical-didactic aspects of e-learning. In addition to the development of IT infrastructure (primarily the Moodle e-learning system called MudRi), we implemented an e-learning education program for teachers and prepared the "Recommendations for the development of educational e-learning materials." With the aim of promoting e-learning, we organised the "E-day of the UNIRI" and established annual awards for the best e-courses and grants for e-course development. UNIRI systematically worked on quality assurance by conducting institutional analysis of the state of e-learning, as well as surveys on how teachers and students accept and evaluate the quality of e-learning.
Cooperation with the E-learning Centre – SRCE has been successful from the very beginning of the introduction of e-learning and it has additionally intensified since 2017/2018 academic year when Merlin was introduced as a learning management system.
Due to the COVID-19 pandemics situation direct/physical teaching was suspended and UNIRI, like other universities, switched to "overnight" online teaching. Teachers mostly used e-courses in Merlin in combination with various video conferencing tools. An evaluation of student and teacher satisfaction with online teaching was conducted. The results indicate that student satisfaction was relatively high. Teachers also positively evaluated their experience of working with students in a virtual environment, but also pointed out to the lack of competencies for conducting online classes, as well as to the need for better technical and infrastructural support. These findings were taken into consideration when preparing the next academic year 2020/2021: implementation of a pilot project of conducting hybrid teaching as a combination of online and direct teaching is planned, where it is recommended to perform up to 40 percent of teaching hours online.
At the UNIRI we consider the COVID-19 crisis not only as a challenge but also as an opportunity for new developments in higher education. It encouraged the re-establishment of the Commission for Online Learning, which will now work more intensively on improving online teaching. It is expected that, following many years of experience in conducting e-learning, UNIRI will successfully implement a model of hybrid teaching that will allow a further increase of the share of online teaching in the coming years. In the future, it should be possible to accredit study programs fully online and therefore available to students across Europe.

Key words: e-learning, hybrid teaching, Merlin e-learning system, UNIRI

UNIRI and COVID-19 Crisis: a chance we should take

Vanja Smokvina
University of Rijeka, Faculty of Law, Rijeka, Croatia

The COVID-19 crises have had an enormous impact on the world economy, especially on economies of smaller countries like Croatia. The Higher Education system is also facing huge problems in this crisis, although the crises has given an opportunity to develop it, or at least to try to develop it, in a more practical and digitally applicable way. We may call it "Suddenly HE online".
In this paper there will be elaborated some examples of good practice at the University of Rijeka (UNIRI), more precisely at the Faculty of Law.
There will be an introduction to projects which UNIRI introduced during the COVID-19 crisis and how that could help the UNIRI constituents and the UNIRI itself to became in the really near future "An online University". On the other hand, we must be aware of the risks this complex change of the university "pillars" brings and an optimum balance should be found.

Key words: UNIRI, Higher education, digitalization, online, cooperation

Distance learning experience in large students group

Nelida Črnjarić-Žic, Ivan Dražić, Loredana Simčić, Vanja Čotić-Poturić, Melita Štefan Trubić, Angela Bašić Šiško, Igor Lulić
University of Rijeka, Faculty of Engineering, Rijeka, Croatia

Teaching a course with a large number of students is demanding, both in didactic and organizational aspect. For many years, we have recognized the Merlin LMS as a solution that makes teaching materials, information, as well as providing feedback on students' progress in acquiring knowledge and skills simple and safe. In this sense, the system has long been used as an organizational platform for course management, and represented a quality integration of classical forms of teaching and modern ICT standards.
COVID 19 has shaken up this functional system to which we as lecturers and our students are accustomed. The Merlin LMS, which has been an aid so far, has turned into a foundation and become a kind of virtual lecture room, while a whole range of new challenges have emerged. It was necessary to choose an adequate platform with which it is possible to distribute a live video lecture for more than 300 users, and at the same time enable communication with the lecturer in real time. Of the available distance learning services, the YouTube platform and the Big Blue Button system proved to be optimal. Furthermore, it was necessary to improve the existing educational materials in order to be adapted to distance work, and to design a system for checking learning outcomes in order to maintain the quality of teaching. Special attention is paid to designing a sustainable knowledge testing system that is adapted to the technical conditions of all students, while maintaining a high degree of objectivity of assessment. Using the Moodle tool, online tests were made to check the adoption of the content with the use of tools to generate a large number of parametrically dependent questions. The questions themselves are focused on a higher level of educational achievement,

i.e. the application and analysis of content in relation to the usual exam questions, which are often reduced to the examination of content understanding and application. Finally, it was necessary to maintain the motivation of students to listen to the course and to ensure the psychological connection between lecturers and students, which was seriously disrupted by the loss of live contact. In this, among other things, we were helped by quick surveys within the Big Blue Button system, which enabled us to test the adoption of outcomes in real time, and at the same time increase the attention and motivation of students during classes. Attention was also paid to encouraging two-way communication between students and lecturers, by organizing individual and group online consultations.
It is important to point out that the key to success was extremely good communication of all stakeholders involved in the system as well as frequent coordination and online meetings of lecturers.

Key words: distance learning, Moodle on-line tests, teaching mathematics

Opportunities in Moodle-based E-teaching of Mathematics

Vedrana Mikulić Crnković
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Although the teachers of the Department of Mathematics have been using Moodle for a long time to support f2f teaching, the situation caused by COVID-19 has pointed us to some additional possibilities of Moodle in teaching and popularizing mathematics. In this presentation, we will present Moodle-based virtual workshops aimed at popularizing mathematics. Furthermore, we will present an online course Computer-based Math designed for students of various study programs within the YUFE network.

Key words: Moodle, e-teaching, mathematics