Digital Social Innovation

Co-funded by the Erasmus+ Programme of the European Union

University of Rijeka, Faculty of Health Studies, Rijeka, Croatia

Digital social innovation: new educational competences for social inclusion (DSI)
Project N. 2018-1-IT02-KA204-048479

Final report of the activities performed by the Rijeka (Croatia) partner, Faculty of Health Studies

Dear Sirs,

Hereby we present the results of the project **Digital social innovation: new educational competences for social inclusion (DSI)**, produced by University of Rijeka, Faculty of Health Studies, Rijeka, Croatia:

A) Competence essential to implement ICT-based social inclusion initiatives/services

Digital competences/topics to be considered for the portfolio:

1. The level of digital education is quite different in various countries and professional/social/age groups: it is necessary to **evaluate the average digital competence of the target population** which is to be addressed by social educators (e. g., patients, children, . The method to be used is questionnaire (or, in individual approaches, interviews) detecting: a) the level of formal/informal education related to digital media; b) openness to digital media and readyness to use them; and c) access to digital media (Internet, i-phones, smartphones, tablets, etc.).
2. If we consider the application of digital media in healthcare (correctly perceiving patients as one of the vulnerable groups), it is necessary to **evaluate the average digital**

competence of healthcare workers as well (physicians, nurses, etc.). Here, too, the method of evaluation might be an appropriate questionnaire providing data on both the knowledge and motivation of healthcare workers in one particular country/institution related to mastering and/or learning how to master digital technology.

3. Social educators themselves should be educated not only in those digital media that are currently used: they should know about **the existance/non-existance of older versions of the same software**. Namely, it is possible that intellectually or physically disabled persons will not be capable of using the most recent programmes or programme versions: in that case, social educatiors may find the solution in applying software versions which are not up-to-date, but still help the beneficiary reach the educator's goal. In order to acquire such a competence, the education of social workers has to be adequatly broadened.
4. Due to the particularly rapid pace of development of new digital technologies, it is necessary that social workers **attend courses on a yearly basis**, following the trends and improving their knowledge and skills in applying digital technology. Those courses might be organised regularly by a university or other accredited organisation, maybe even at the regional/international level, and combined with the exchange of good practices. The course organisers may be endorsed by issueing international licences helping standardise and eventually monitor the quality of digital social innovation.
5. Social workers using digital technology certainly will come in touch with personal data of the beneficiaries. Thus, social workers will have to be informed about the fundamental elements of the EU directive called **General Data Protection Regulation** (**GDPR**), and treat the data they gather in accordance with the directive.

B) Motivation/engagement of social educators and social volunteers

The importance of including social educators and social volunteers in DSI is crucial. The University of Rijeka Faculty of Health Studies, being involved in higfher education of health professionists, believes that social educatiors may be motivated to join the organisation and execution of courses for students and teachers. A permanent network of social educators has to be formed and used for the spread of information on courses. The network may also be used to secure constant mutual exhnage of good practices.

C) Dissemination activities

The following activities have been undertaken by the project team members:

Published papers

1. Muzur, A, Rinčić I, Shim J, Byun S. 2020. Epharmology: A plea for a new science and a new education paradigm. *Nova prisutnost* (Zagreb) 18 (1): 39-46.

Projects

1. Public Spaces: Culture and Integration in Europe. HERA Joint Research Programme. PI1 Florian Steger; PI3 Amir Muzur. 2018.-2021.
2. Novi trendovi u bioetici srednje i jugoistočne Europe: istraživanje i umrežavanje resursa (uniri-human-18-4-1130). Sveučilište u Rijeci. 2019.-2022.
3. Bioetički standardi urbaniteta: grad kao okvir etike života (s posebnim osvrtom na Rijeku; uniri-human-18-49-5431). Voditeljica: Iva Rinčić. Sveučilište u Rijeci. 2019.-2022.
4. Bioethical aspects of urban(ised) artificial intelligence. Voditelj Sun Yong Byun (Seul). Partneri u projektu A. Muzur i I. Rinčić. Research Institute for Humanities Contents, Chung-Ang University, Seul, Južna Koreja. 2019.-2020.
5. Building an artificial intelligence ecosystem for human-centered values and inclusive society with the perspectives from ethics and law. Voditeljica Jiwon Shim (Seul). Partneri u projektu A. Muzur i I. Rinčić. Research Institute for Humanities Contents, Chung-Ang University, Seul, Južna Koreja. 2020.-2021.

Invited lectures (A. Muzur)

1. The Technological Change of the Artificially Intelligent Robot and Education in the 4th Revolution, Seoul, R. Korea, January 30, 2019. "Epharmology: a plea for a new science of adaptation to a digitalised world."
2. 2nd International Conference on Artificial Intelligence Humanities ICAIH2019, Seoul, R. Korea, August 14, 2019. "Artificial intelligence and consciousness: paving the way for an epharmological analysis."
3. International Scientific and Artistic Conference on „Contemporary Topics in Education", Zagreb, Croatia, November 15-17, 2019. „Broadening the „Rijeka Model of Bioethical Education:" From „new medical ethics" to UNESCO chair and epharmology".
4. Internet Adria: Digital Marketing in Tourism, Opatija, Croatia, April 9-10, 2019. «Memory and Consciousness».
5. 14th International Scientific Conference "Society, Integration, Education", Rezekne, Latvia, May 22-23, 2020. "Epharmology: a plea for a new science and a new education paradigm" (postponed)

Other participations in conferences (A. Muzur):

1. 18th Lošinj Days of Bioethics, M. Lošinj, Croatia, May 19-22, 2019. "Epharmology: a plea for a new science of adaptation to a digital world."
2. 3rd lnternational Scientifc Conference HealthOnline 2019, Ljubljana, Slovenia, September 12, 2019. (co-authors Marija Spevan, Kata lvanišević, Eli Šuperina Mandić, Vanda Malle, Sandra Bošković, and Marija Bukvić). "Digitalisation and computerization of healthcare system in Croatia: learning from others' experience."
3. lnternational Scientific Symposium „The Scientific Bridges of Rijeka 4": Natural and
4. Artificial lntelligence: Symbiosis, Co-Operation, Conflicts, Rijeka, Croatia, November 8, 2019. „Artificial intelligence and consciousness."
5. Artificial lntelligence and Mobile Device Applications in Healthcare - Chances for the Access to Healthcare in a Diverse Society, Ulm, Germany, November 11, 2019.

Membership in organisational boards of symposia (A. Muzur)

1. 21st Rijeka Days of Bioethics: Urban Bioethics - From Smart to Living Cities – Bioethical Debate, Reflections, and Standords (Rijeka, May 17-18, 2019).
2. lnternational Scientific Symposium „The Scientific Bridges of Rijeka 4“: Natural and Artificial lntelligence: Symbiosis, Co-Operotion, Conflicts (Rijeka, November 8, 2019.
3. lnternational Scientific and Artistic Conference „Contemporary Topics in Education - STOOT“ (Zagreb, November 15-17, 2019).
4. 3rd Iinternational Conference Health OnLine (Ljubljana, September 12, 2019).

The following workshop has been conceived and scheduled for the next autumn:

Ethics in the Digital Era: Challanges for Educators and Consumers
Workshop

Organisers: University of Rijeka, Faculty of Medicine, Department of Social Sciences and Medical Humanities; Faculty of Health Studies, The *Fritz Jahr* Documentation and Research Centre for European Bioethics; UNESCO Chair on Social Sciences and Medical Humanities

Venue: University of Rijeka, Faculty of Medicine / Faculty of Health Studies

Date: Rijeka, October 2020 (the workshop will be organised, if possible, to precede the annual Lošinj Days of Bioethics conference in Mali Lošinj: if the epidemiological situation will impede it, the workshop is going to be organised on an online platform)

Audience: open for general public (to be announced on social networks), but primarily teachers, scientists, and students of University of Rijeka (faculties of medicine, helath studies, education, humanities and arts, etc.

Invited speaker:
Gilberto Marzano (Udine/Rezekne): Digital social innovation (presentation of the project background and results)

Participants (those known at the moment):
Ksenija Baždarić (Rijeka)
Saša Horvat (Rijeka)
Željko Kaluđerović (Novi Sad)
Amir Muzur (Rijeka)
Vanja Pupovac (Rijeka)
Iva Rinčić (Rijeka)
Helena Štrucelj (Rijeka)

D) Social innovation

Two new curricula have been coceived and will be offered to the corresponding decision-making bodies at the University of Rijeka Faculty of Medicine and Faculty of Health Studies, respectively.

Basic description		
Course coordinator	**Bojan Miletić**, MD, PhD, Assistant Professor	
Course title	Digital era in cardiology - "home monitoring systems"	
Study programme	Undergraduate Professional Studies Nursing	
Course status	elective	
Year	1	
ECTS credits and teaching	ECTS student 's workload coefficient	2
	Number of hours (L+E+S)	15 + 0 + 0

1. **COURSE DESCRIPTION**		
1.1. Course objectives		
To acquaint the students with the general basics of patient monitoring in cardiology with an emphasis on current trends in cardiology and the ability to monitor patients in the home environment in order to improve the quality of life of the cardiology patient		
1.2. Course enrolment requirements		
There are no special conditions.		
1.3. Expected course learning outcomes		
Students will become acquainted with modern "home monitoring systems" and after completing the course will be able to discern the indications and methodology of application of these systems in daily work with cardiac patients		
1.4. Course content		
1. Introduction to cardiac diagnostics (2 hours) 2. Basic principles of monitoring in cardiology (2 hours) 3. Different types of monitoring system (8 hours) 4. Home monitoring - from prevention to rehabilitation (2 hours) 5. Final (1 hour)		
1.5. Teaching methods	X lectures ☐ seminars and workshops ☐ exercises ☐ long distance education ☐ fieldwork	X individual assignment ☐ multimedia and network ☐ laboratories ☐ mentorship ☐ other
1.6. Comments	The course leader will participate in the teaching	
1.7. Student's obligations		

Regular attendance, written seminar paper and final written examination.

1.8. Evaluation of student's work

Course attendance	0,2	Activity/Participation		Seminar paper	1,2	Experimental work	
Written exam	0,6	Oral exam		Essay		Research	
Project		Sustained knowledge check		Report		Practice	
Portfolio							

1.9. Assessment and evaluation of student's work during classes and on final exam

Assessment is carried out in accordance with the Rules of Assessment of the Faculty of Medicine, University of Rijeka: attendance is 10 (%), written seminar paper 60 (%), and final written exam 30 (%).

1.10. Assigned reading (at the time of the submission of study programme proposal)

Jessica Articoa, Massimo Zecchina, Anna Zorzin Fantasiaa et al. Long-term patient satisfaction with implanted device remote monitoring: a comparison among different systems. DOI:10.2459/JCM.0000000000000818 Sandeep Kumar Vashist, E. Marion Schneider and John H.T. Luong . Commercial Smartphone-Based Devices and Smart Applications for Personalized Healthcare Monitoring and Management. doi:10.3390/diagnostics4030104.
Yohanca Diaz-Skeete, Oonagh M Giggins, David McQuaid. Enablers and obstacles to implementing remote monitoring technology in cardiac care: A report from an interactive workshop. DOI: 10.1177/1460458219892175.
All required literature as well as presentations will be available to students

1.11. Optional / additional reading (at the time of proposing study programme)

Maurizio Volterrani and Barbara Sposato. Remote monitoring and telemedicine. doi:10.1093/eurheartj/suz266

1.12. Number of assigned reading copies with regard to the number of students currently attending the course

Title	*Number of copies*	*Number of students*

1.13. Quality monitoring methods which ensure acquirement of output knowledge, skills and competences

Student survey in accordance with the laws and acts of the University of Rijeka.

Basic description		
Course coordinator	**Amir Muzur**, MD, MA, PhD, Full Professor	
Course title	Digital Ethics Primary	
Study programme	Integrated Undergraduate and Graduate Medical Studies	
Course status	elective	
Year	3	
ECTS credits and teaching	ECTS student 's workload coefficient	1,5
	Number of hours (L+E+S)	5 + 0 + 20

2. COURSE DESCRIPTION

1.14. Course objectives

To acquaint the students with the general basics of digitalisation and informatisation processes and particularly with ethical issues related to those processes.

1.15. Course enrolment requirements

No special conditions.

1.16. Expected course learning outcomes

Students will be able to consider major ethical issues related to digitalisation and to propose ways to their solutions.

1.17. Course content

1. Definitions and examples of digitalisation, informatisation, robotisation, and globalisation
2. Major ethical issues related to digitalisation etc.

1.18. Teaching methods	X lectures X seminars and workshops ☐ exercises X long distance education ☐ fieldwork	X individual assignment X multimedia and network ☐ laboratories ☐ mentorship ☐ other
1.19. Comments		

1.20. Student's obligations

Regular attendance and a written essay.

1.21. Evaluation of student's work

Course attendance	0,3	Activity/Participation	0,5	Seminar paper		Experimental work	
Written exam		Oral exam		Essay	0,7	Research	
Project		Sustained knowledge check		Report		Practice	

Portfolio							

1.22. Assessment and evaluation of student's work during classes and on final exam

Assessment is carried out in accordance with the Rules of Assessment of the Faculty of Medicine, University of Rijeka.

1.23. Assigned reading (at the time of the submission of study programme proposal)

- Muzur, A, Rinčić I, Shim J, Byun S. 2020. Epharmology: A plea for a new science and a new education paradigm. *Nova prisutnost* 18 (1): 39-46
- Muzur A. 2018. Interdisciplinarity as a state of mind: how can individuals and societies reach it? *European Review* 26 (S2): S76–S84

1.24. Optional / additional reading (at the time of proposing study programme)

- Deloitte. 2019. *Future of Risk in the Digital Era*
- EDPS. 2015. *Mišljenje 4/2015: Prema novoj digitalnoj etici*
- Osburg T & Lohrmann C, eds. 2017. *Sustainability in a Digital World: New Opportunities Through New Technologies*
- Helbing D, ed. 2020. *Towards Digital Enlightenment: Essays on the Dark and Light Sides of the Digital Revolution*

1.25. Number of assigned reading copies with regard to the number of students currently attending the course

Title	*Number of copies*	*Number of students*

1.26. Quality monitoring methods which ensure acquirement of output knowledge, skills and competences

Student survey in accordance with the positive acts of the University of Rijeka.

With cordial greetings,

Amir Muzur, MD, MA, PhD
Professor
University of Rijeka, Faculty of Health Studies