Workshop

On "MediTec" Project
(Training for Medical Education via Innovative e-Technology)

Workshop Information Overview

Title: Instructional design and implementation of emerging technologies in medical education: The experience of Tehran University of Medical Sciences in Iran

Description:

As mentioned in description of MediTec[1] the aim of this project is *supporting and modernizing the medical education in Jordan, Iraq, and Iran by establishing innovative training centers with immersive medical learning platform and realistic simulation models in order to improve the practical and soft skills for students in medical education in Jordan, Iraq, and Iran.* Some wider Objectives include: training of trainers, staff and students on innovative technologies in EU universities, adapting the training on innovative technology in teaching process, enhancing training-methodical complexes on bases of modernized training courses, developing and delivering training program, multimedia and materials for training innovative technologies.

For this purpose, training workshops are held for participants from member countries. Universities from Slovakia, Czech Republic, Jordan and Malta have already held workshops. Meanwhile, Tehran University of Medical Sciences (TUMS) from Iran, as one of the MediTec participants, is the pioneer of e-learning, simulation based learning and integrating new technologies in education among Iranian universities. The University applies a user-friendly Learning Management System (LMS) and deploys different strategies including training workshops for faculty members to promote them in applying new technologies in education. Virtual School of TUMS, established in 2010, has been delegated as "The Center of Excellence for E-learning in Medical Education" since 2011. Also the school delivers MSc of "Medical Education", "Educational Technology in Medical Education" and MSc and PhD of "e-Learning in Medical Education" and has a great experience in implementing educational technologies.

---

[1] About MEDITEC, available from: http://meditec.just.edu.jo/Pages/about.aspx. July 29, 2019

So TUMS will be holding a workshop to share the experience of **Instructional design and implementation of emerging technologies in medical education** with other universities participating in MediTec. Regarding the COVID-19 crisis, the focus of the workshop would be on applying new technologies in respond to medical education challenges during this pandemic. In fact, presenting this regional experience would help to achieve MediTec objectives. Also TUMS would benefit from provided feedbacks and benchmarking its activities with European standards.

It is worth mentioning that we had planned to run a face-to-face workshop in June in Iran, meanwhile as COVID-19 crisis affected the plan, we shifted to deliver an e-workshop instead.

Length and date

This workshop will be delivered during 3 weeks from August 31st to September 21st 2020 including both synchronous and asynchronous events.

Date	Platform*	
Pre workshop start up	August 29th to August 31st	
Week 1 August 31st to September 7th	Webinar 1:	September 2nd, 10-12 GMT
	LMS activity:	August 31st to September 7th
Week 2 September 7th to 14th	Webinar 2	September 9th, 10-12 GMT
	LMS activity:	September 7th to 14th
Week 3 September 14th to 21st	Webinar 3:	September 16th, 10-12 GMT
	LMS activity:	September 14th to 21st
Closing session	Webinar 4:	September 21st, 10-12 GMT

* Asynchronous platform: http://tumsnavid.vums.ac.ir (Usernames and passwords will be announced to the participants)
Synchronous platform: Zoom (Link will be announced)

Teaching strategies

This will be a virtual workshop including synchronous and asynchronous components. Two days before the workshop, participants will receive their usernames and passwords of TUMS' LMS (http://tumsnavid.vums.ac.ir). Within first 3 days, they will not only have access to workshop study guide and useful introductory presentations, but also get familiar with Iran and TUMS. During the workshop, related materials and slide presentations would be uploaded in the LMS. In addition, there would be chance of participating in a forum for further discussion. In synchronous

sessions, facilitators would deploy different instructional strategies including interactive lecture presentations and question and answer to promote participants' engagement.

Workshop evaluation

Participants would evaluate the workshop by filling a questionnaire. Besides, in the closing session, there would be a time for providing feedback on workshop quality.

Topics and Schedule

Pre workshop Work shop start up	
Description: Building network among participants and facilitators, introduction of workshop agenda, getting familiar with Iran	
Moderator: Dr. Rita Mojtahedzadeh	
Asynchronous event	Creating a WhatsApp group and welcome to participants Introduction of workshop agenda Getting familiar with workshop platforms and resolving participants' technical issues
	Building network among participants
	Virtual tour to Iran
	An introduction to Tehran University of Medical Sciences (TUMS)

Theme 1: e-Learning in medical education

Moderator: Dr. Aeen Mohammadi

	Duration (minutes)	Title & presenter
Webinar session 1 September 2nd 10-12 GMT	5	Welcome and workshop overview
	20	How to implement an e-learning system? Dr. Rita Mojtahedzadeh
	20	Content design and development Mr. Hasnain Zafar Baloch
	20	e-Learning new trends: MOOCs and its role during COVID-19 time Dr. Azadeh Shabani
	20	e-Learning new trends: Mobile learning Dr. Shoaleh Bigdeli
	35	Question and answer
Asynchronous workshop		The history of e-learning in Iran Dr. Rita Mojtahedzadeh
		e-Learning in medical sciences education: a brief review Dr. Aeen Mohammadi
		e-Learning team Dr. Rita Mojtahedzadeh
		Participants' teamwork: System analysis and identifying challenges of higher education in universities during COVID-19 crisis Facilitator: Dr. Rita Mojtahedzadeh

	Duration (minutes)	**Title & presenter**
		Theme 2: Medical education critical issues during COVID-19 crisis
		Moderator: Dr. Rita Mojtahedzadeh
Webinar session 2 September 9th 10-12 GMT	20	Professionalism and medical ethics in pandemics: The case of COVID-19 ERA Dr. Shabih H Zaidi
	20	Principals of medical students' assessment Dr. Aeen Mohammadi
	20	Impact of COVID-19 on medical education and assessment: lessons learnt Dr. Isabel Stabile
	20	Toward virtual internationalization in medical education, the impact of COVID-19 crisis Dr. Mohammad Hossein Nekoofar
	40	Question and answer
		e-Content standard: SCORM Dr. Mitra Gharib
		e-Learning new pedagogical trends Dr. Mitra Zolfagari
		Students' engagement Mr. Hasnain Zafar Baloch
		Participants' teamwork: Sharing student e-assessment challenges and innovative solutions Facilitated by Dr. Aeen Mohammadi

Theme 3: Simulation in medical education

Moderator: Dr. Shoaleh Bigdeli

	Duration (minutes)	Title & presenter
Webinar session 3 September 16th 10-12 GMT	15	Simulation based medical education Dr. Aeen Mohammadi
	15	Simulation in anatomy teaching Dr. Fardin Amidi
	15	Gamification: a playful learning Dr. Shadi Asadzandi
	15	Virtual hospital & virtual Pharmacy Mr. Soroosh Ahmadi
	15	An introduction to health informatics Dr. Lalit Garg
	45	Question and answer
Asynchronous workshop 3		Active learning and simulation Dr. Maryam Alizadeh
		New trends of e-Learning: Augmented and virtual reality Dr. Maryam Tayefeh Mahmoudi
		New trends of e-Learning: Big data and learning analytics Dr. Aeen Mohammadi
		e-Learning new trends: Micro learning Dr. Rita Mojtahedzadeh
		Crossing the chasm with information technology: e-Health Dr. Alireza Atashi
		Tele medicine for COVID-19 Dr. Alireza Atashi
		Participants' teamwork: Brainstorming of ideas about the future application of different types of simulations in medical education Facilitator: Dr. Rita Mojtahedzadeh

Workshop Facilitators (alphabetically)

Maryam Alizadeh Ph.D.

Dr Maryam Alizadeh is an assistant professor, she is director of the faculty development Unit, Education Development Center (EDC) of Tehran University of Medical Sciences. Her PhD is in Medical Education.

Fardin Amidi, Ph.D.

Dr Fardin Amidi is professor of Anatomy at Tehran University of Medical Sciences.

Shadi Asadzandi, PhD

Dr Shadi Asadzandi has PhD degree in Library and Information Sciences. She has been working at TUMS' Virtual School as the librarian and then international office staff. She is skilled and passionate in gamification and educational game and also interested in e-learning.

Soroosh Ahmadi, Pharmacy student

Soroosh Ahmadi is the Phram. D and master student in medical education at Tehran University of Medical Sciences. He was the previous Erasmus student in University of Camerino, UNICAM in Italy.

Alireza Atashi, Ph.D.

Dr. Alireza Atashi is an assistant professor in Medical Informatics at Tehran University of Medical Sciences and also the founder and director of Medical Informatics department of Motamed Cancer Institute in Tehran. He Holds MSc in Mathematics and PhD in Medical Informatics. His PhD research area was medical registry design with risk score calibration for intensive care and cardiac surgery patients. Alireza has conducted several works in the field of medical data mining, fuzzy analysis and model based clinical decision support especially in the fields of cancer and intensive care. Now, he tries to extend his studies by newer medical services like telemedicine and E-health.

Shoaleh Bigdeli, Ph.D.

Dr. Shoaleh Bigdeli received her doctorate in Curriculum Theories and Implementation from Simon Fraser University (SFU), Canada. During 2010 and 2011, she received 7 medical education certificates from London Open University, UK. In 2015 she was invited by Professor David Kaufman to collaborate in a gamification project at SFU, Canada. She is Associate Professor in the department of Medical Education, Faculty of Medicine at Iran University of Medical Sciences. She has supervised more than 30 post-graduate theses in medical education, and has run more than 70 presentations and workshops at universities and conferences. She has published more than 40 articles and co-authored 7 books. She is member of Academy of Medical Sciences, Vice-Director for Research at Center for Educational Research in Medical Sciences (CERMS), member of National Agency for Strategic Research in Medical Education (NASR), international affairs adviser to different medical education institutes, and editorial member of several medical education journals.

Lalit Garg, PhD

Lalit Garg is a Senior Lecturer in Computer Information Systems at the University of Malta, Malta, and an honorary lecturer at the University of Liverpool, UK. He has also worked as a researcher at the Nanyang Technological University, Singapore, and Ulster University, UK. His supervision experience includes more than 190 Masters' dissertations and four Ph.D. thesis. He has edited two books and published over 100 papers in refereed high impact journals, conferences, and books, and some of his articles awarded best paper awards. He has delivered more than twenty keynote speeches in different countries, organized/chaired/co-chaired a similar number of international conferences. He was awarded research studentship in Healthcare Modelling to carry out his Ph.D. research studies in the faculty of computing and engineering at Ulster University, UK. His doctoral research was nominated for the Operational Research Society Doctoral Prize "Most Distinguished Body of Research leading to the Award of a Doctorate in the field of OR." He has also consulted numerous public and private organizations for their information system implementations. His research interests are missing data handling, machine learning, data mining, mathematical and stochastic modelling, and operational research, and their applications, especially in the healthcare domain.

Mitra Gharib, Ph.D.

Dr. Mitra Gharib is assistant professor at Virtual School of Tehran University of Medical Sciences. Mitra received her PhD. in Distance Education Planning from PNU, her MSc. in Medical Education from Iran university of Medical Sciences, furthermore another Master's degree in Nursing Education from Shahid Beheshti University of Medical Sciences. She has been working as faculty member since 1993. She has taught a wide range of courses on medical education and distance education at many universities in Iran; and she received teaching award as distinguished faculty of virtual school. She is active in many projects including curriculum development, and continuous professional development workshops. Her research interests include distance education planning in medical fields.

Aeen Mohammadi, MD, MPH, Ph.D.

Dr. Aeen Mohammadi has PhD in Medical Education. He is one of the founders of Virtual School of TUMS and currently a faculty member of e-Learning in Medical Education Department in this school, meanwhile he is Vice Chancellor for Infrastructure and Information Technology of Virtual University of Medical Sciences (A new stablished university).

He has performed several developmental and research projects in the field of e-learning and medical education in Iran, some of which are as follows: academic ranking of medical schools, stratification of educational services, metrics systems for faculties members' activities, comprehensive educational award system, and comprehensive system of e-continuous medical education (e-CME), national institutional accreditation system of e-learning centers and so on. Now he, as the manager, is working on development and establishment of Iran's national Massive Open Online Courses (MOOCs) platform and national Learning Management System (LMS). He has published several articles and books in related fields.

Rita Mojtahedzadeh, MD, MPH, Ph.D.

Dr. Rita Mojtahedzadeh has PhD in E-learning Planning. She is one of the founders of Virtual School of TUMS and currently a faculty member of e-Learning in Medical Education Department in this school; meanwhile she is second-affiliated faculty member of Medical Education Department in Virtual University of Medical Sciences. She has been one of principal investigators of several research projects in the field of e-learning and medical education in Iran, some are as follows: academic ranking of medical schools, metrics systems of faculties members' activities, comprehensive educational award system, and comprehensive system of e-continuous medical education (e-CME), national institutional accreditation system of e-learning centers and so on. Now she, as the core responsible body, is working on development and establishment of Iran's national Massive Open Online Courses (MOOCs) platform and national Learning Management System (LMS). She has published several articles and books in related fields.

Prof. Mohammad Hossein Nekoofar, DDS, Ph.D.

Prof. Mohammad Hossein Nekoofar has PhD in physical and chemical characteristics of Mineral Trioxide Aggregate. He is Honorary Lecturer in Endodontics & Dental biomaterial. He is Assistant Professor of Endodontics. He is a member of "Endodontology Research Group", Department of Adult Dental Health, Cardiff University. Supervised more than twenty final projects and dissertations of BDs and DDs students in Iran and the UK. He also serves as the head of TUMS' Directorate of International Relations, Accreditation & Ranking.

Azadeh Shabani, MD, Msc

Dr. Azadeh Shaabani, is a physician and has MSc of e-Learning in Medical Education. she worked as physician/researcher in Immunology, Asthma and Allergy Research Institute of Tehran University of Medical Sciences and has some publication in mentioned field. From 2012 to 2018, she worked at Virtual School of Tehran University of Medical Sciences. Her area of interests includes Clinical Guideline and Clinical Pathway development, instructional design of LMSs, instructional Design of educational platforms and mobile learning. Currently she is one of the main members of developing Iran's national LMS and MOOCs platforms.

Prof. Isabel Stabile, L.R.C.P., M.R.C.S., F.R.C.O.G., Ph.D.

Dr. Isabel Stabile was appointed Research Scientist with the rank of Full Professor at Florida State University in 1991. During her tenure she was responsible for generating over $10,000,000 in research funding which has led to numerous publications as well as international awards. She was elected Fellow of the Royal College of Obstetricians and Gynaecologists in 2006. In 2007 she was appointed Associate Professor in the Faculty of Medicine and Surgery at the University of Malta. Since 2009 she has served as Director of Studies of the Medical Foundation Program as well as Rector's Delegate for International medical students at the University of Malta. In 2012, she re-designed the clinical curriculum and introduced new strategies to facilitate learning. The new curriculum was also designed to function within the European Credit Transfer System.

Maryam Tayefeh Mahmoudi, Ph.D.

Dr. Maryam Mahmoudi received her Ph.D degree in Artificial Intelligence from the University of Tehran. Within the past years, she has been involved in a variety of research works with emphasis on automatic generation and personalization of ideas & contents, and making conceptual models for research projects using ontological structures and linguistic approaches. She has a variety of research papers in content generation, content management, text mining and text summarization using Artificial Intelligence methods, Augmented Reality & Virtual Reality tools and platforms, with particular emphasis on e-education, e-medicine and research support purposes.

She is an active researcher in the areas of content management & creation and augmented reality, and has a high motivation for applying the related techniques to human issues such as human-computer interaction and e-pedagogy/ e-learning, e-medicine as well. At present, she is an Assistant Professor and Head of Education, Scientific & International Collaboration Office at ICT Research Institute. She is also Vice-Rapporteur for Q7, ITU-D SG1 working on ICT accessibility for Persons with Disability (PwD) & Persons with specific needs.

Shabih Haider Zaidi, MBBS

Dr. Shabih Haider Zaidi completed his MBBS from Dow Medical College (DMC) in 1966. Following this he proceeded to UK for FRCS. He returned to Pakistan in 1972, and rose to be the Professor and head of the department of ENT. He was also Principal of Sindh Medical College, Head of Medical Education, at DMC, Sindh Medical College and Jinnah Postgraduate Medical Center until 2001. Over the years, he was awarded Fellowships from of the American College of Surgeons (FACS), International College of Surgeons (FICS), and the College of Physicians and Surgeons, Pakistan (FCPS). Dr. Zaidi founded the Department of Medical Education at DMC. Dr. Zaidi has written several books and monographs, and published over a hundred scientific papers. He has also worked as an advisor and a consultant to the World Health Organization (WHO), and was a visiting Professor to the University Sains, Kelantan, Malaysia. Dr. Zaidi relocated to England in 2001 where he joined the University of Liverpool Teaching Hospital as an ENT Consultant. In 2004 he joined one of the University of Birmingham teaching NHS hospitals. He is currently engaged in developing the Encyclopedia of Islamic Medical Ethics. In addition, he is currently the chancellor of Sadiq International University, and Sadiq International Virtual University. His major interest is Medical Ethics.

Hasnain Zafar Baloch, MSc

Hasnain Zafar Baloch is working as e-Learning Manager at International Medical University (IMU). He has more than fifteen years' hands-on experience with implementing e-learning in higher education. In 2013, he was ranked No.6 in the World and No.3 in Malaysia on the 'Top e-Learning Movers & Shakers' poll based on votes from1800+ learning professionals/educators around the world. He has a passion for new technologies, social collaboration strategies and the impact they have on learning.
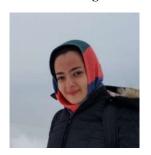
Mitra Zolfaghari, Ph.D.

Mitra Zolfaghari is PhD in e-learning in medical education and associated professor of Tehran University of Medical Sciences. She was born in Shiraz (Iran) in 1970, educated in Shiraz University of Medical Science (SUMS) for bachelors and master of Nursing and in PNU University for PhD in e-Learning planning. She is Vice Dean of education in Virtual School at Tehran University of Medical Sciences and a member of Nursing & Midwifery Care Research Center at TUMS, Iran. She published more than 50 articles in education with H-index: 6 in Scopus

Coordinator Team (alphabetically)

Shadi Asadzandi

Tannaz Azadi

Zohreh Sadeghi

Ali Sayyadi

Azita Shahbazi