
REPORT OF THE HEALTH 2.0 WORKSHOP AT THE INTERNATIONAL FEDERATION OF MEDICAL STUDENTS ASSOCIATIONS' GENERAL ASSEMBLY 2014:**A STARTING POINT FOR RAISING AWARENESS ABOUT THE RELATIONSHIP BETWEEN INFORMATION COMMUNICATION TECHNOLOGY AND HEALTH CARE AMONG MEDICAL STUDENTS****Angelo D'Ambrosio MD¹, Stefan Buttigieg MD², Alexander Carlström³, Omar Cherkaoui³, Ivana Di Salvo³**¹ Bambino Gesù Pediatric Hospital² Information School, University of Sheffield, United Kingdom³ International Federation of Medical Students' Associations

Introduction and IFMSA Commitment

Health care has been deeply transformed at every level by the digital revolution. Many new paradigms allowed by the application of information and communication technologies (ICTs) in medicine and electronic health records (EHR) are already mainstream and part of everyday medical practice.

Young medical students and doctors are expected to have a deep understanding of eHealth and its implications, but eHealth does not receive the attention it deserves from the average medical student. This is not acceptable for a generation of future doctors who are going to be influenced by and use these technologies.

The International Federation of Medical Students' Associations (IFMSA), is the leading and largest medical students' association in the world, with over 1.2 million students represented worldwide in 108 National Member Organizations (NMOs) from 102 countries. It has decided to play a leadership role in advocating for increased awareness about eHealth among medical students all over the world.

During the 63rd General Assembly (GA) of IFMSA, held in March 2014 in Hammamet, Tunisia, the topic of eHealth was addressed through three initiatives: a Policy Statement about eHealth, a 3 day workshop on eHealth held before the GA, and discussions about the role of the IFMSA Technology Officers as first advocates of eHealth.

These initiatives were realized through collaboration between IFMSA, ISfTeH (International Society for Telemedicine and eHealth) and the World Health

Organization (WHO). The ISfTeH encourages the involvement of medical students, recognizing their potential to facilitate dissemination of information on eHealth. IFMSA wants to be leader in the field and act as a connection between international entities like the ISfTeH and WHO and medical students all over the world.

Policy Statement

Bearing in mind that there are several components of eHealth, namely: leadership and governance; strategy and investment; legislation, policy and compliance; human resources; standards and interoperability; infrastructure; and solutions or applications and services,¹ in which students can and should play a role, a Policy Statement on eHealth was approved during the GA.² Students in the Assembly recognized many good activities and applications of eHealth such as the "Kenya National e-Health Strategy 2011-2017" developed by the Kenyan Ministry of Health;³ Ethiopia's effort on health management information systems, electronic medical records, human resources information systems, and telemedicine;⁴ the developments achieved in telemedicine in countries such as Brazil⁵ and Cape Verde;⁶ the development of eHealth in India and in Bangladesh.⁷ IFMSA students also proposed to develop ethical guidelines on protection of private health information of all patients for medical students and physicians who use eHealth to provide health care services.⁸

Pre-GA Health 2.0 Workshop

The workshop was organized by: I. Di Salvo, IFMSA Liaison Officer for Research and Medical Associations; O. Cherkaoui, IFMSA New Technology Support Division Director; S. Buttigieg, MD, past IFMSA New Technology Support Division Director and currently a freelance mobile application developer; A. D'Ambrosio, MD, past Information Technology Group Co-ordinator for SISM (IFMSA Italy), currently epidemiologist at the Bambino Gesù Pediatric Hospital; and Alexander Carlström, Vice-President on Internal Affairs for AMSA (IFMSA Austria).

During Day 1 several examples of how technology is changing the approach of physicians and patients to healthcare were introduced by Dr. Al-Shorbaji of the WHO, who made a presentation by videoconference on how health information is distributed to doctors and patients in a modern medical environment. This was followed by a discussion on the effects of mobile technologies on everyday work of doctors and patients' approach to their own care. The Quantified Self movement⁹ which promotes the acquisition of data from patients regarding their own daily life using wearable sensors, was presented. Dr. Tozzi of the Bambino Gesù Children's Hospital, gave some examples on how eHealth will change paediatric medical practice in coming years.

On day 2, several platforms showing how the Internet is changing Medical Education were explored. Massive Online Open Courses¹⁰ and platforms like Coursera (www.coursera.org) were presented by online streaming. Dr. Saliez from the ISfTeH introduced problem based learning with online tools. The day concluded with a presentation on the Open Access¹¹ movement and a general overview of the impact of eHealth on Research, by F. Falkenbach, Technology Lead of the Open Access Button (<https://www.openaccessbutton.org>),

On day 3, the effect of ICTs on broader aspects of health was investigated. Dr Molefi, Managing Director, Telemedicine Africa, described the effects that a modern approach to health care is having in a low-income area. Dr Dzenowagis of the WHO, discussed how Information Technology is allowing a paradigm shift in resource allocation in medicine, facilitating healthcare based on prevention and chronic diseases management.

Disaster Medicine is another field where

technology can bring great advantages and simulation tools for disaster management were shown by Dr Ragazzoni of CRIMEDIM, Novara, Italy. The potential of advancing computing power in healthcare was illustrated, focusing on how new fields like Big Data Analytics in Health Care¹² and Digital Epidemiology¹³ can help tackle many important Public Health issues.

Dr Stefan Buttigieg conducted a parallel programme during the workshop which consisted of a practical introductory course on mobile medical application (app) development for smartphones. Participants had to create a basic project (idea, features, marketing) about a hypothetical mobile medical app they would like to develop, to be presented on the final day of the workshop. The results were fairly positive. The students presented a tool to teach children how to use asthma inhalers and a patient oriented drug leaflet app.

Redefinition of IFMSA Technology Officers' role

The IFMSA and its NMOs have officers whose responsibilities are the technical, and Internet based infrastructures of the associations. During the GA we started to create a framework to redefine and unify the role of this position as the main advocate for eHealth within IFMSA.

Conclusion

IFMSA strongly supports access to and advancement of the use of eHealth, to deliver healthcare services and information over large and small distances.² We as IFMSA believe that the obstacles that currently hold back the further implementation of eHealth, can be dealt with by better collaboration between different stakeholders in the healthcare sectors. The actions taken at the GA are necessary steps to provide access to eHealth training within undergraduate and postgraduate medical education, to offer access to additional training in eHealth to practicing physicians, to raise awareness on the benefits of eHealth and to invest in infrastructure in order to provide access to all to participate in eHealth through coordinated advocacy efforts.

Governments and Health Systems' leaders should take responsibility for making sure that eHealth reaches rural and vulnerable populations and should monitor and improve the standards of Practice and Quality of

Clinical Care in order to achieve the best clinical outcomes. At the same time they should ensure that patients' confidentiality is maintained, their health information is secure and relevant legislation and regulations related to patients' decision-making and consent are developed and approved.

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Conflict of Interests

The authors declare no conflicts of interest.

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