Future collaboration and tech on Italy-US Congress agenda

A review of December's eHealth event in Italy

The primary objective of the Italy-US Congress, organised by the University of Bologna alongside the University of Illinois, was to cross-learn from new technology while laying the foundations for future digital health collaborations. The conference covered areas ranging from data management to legal issues pertaining to the use of technology in healthcare.

Dr Ommen[1] and Dr Burton[2] from Mayo Clinic and Apertiva Inc. spoke about big data. The last decade has seen huge advancements in the quality and quantity of data we routinely generate, collect, and use to make decisions in providing healthcare services. With the deluge of resources becoming available allowing the generation of exponential amounts of data, medical decisions will increasingly be assisted by big data, which is already being used to cure disease at the micro level, by personalising healthcare. Dr Ommen described the efforts at Mayo Clinic to promote connected care. Using the available mobile technology, patients can stay connected to their healthcare team, thus helping people get the right care at the right time. Under a new model developed at Mayo Clinic, the patient and healthcare service relationship permeates beyond the diagnosis and/or treatment phase, allowing the healthcare service to 'follow' the patient through the entirety of his or her life for timely interventions, thus avoiding certain medical conditions while curbing preventable deaths.

Dr Magelli[3], Dr Kesavadas[4], and Dr Bryan White[5] discussed the University of Illinois' continued commitment and leadership in breakthrough research and entrepreneurship. Building on its visionary approach in advanced technological research and applications, the University is breaking ground with a first of its kind medical school: one that will give equal emphasis to teaching advanced technology, and medicine, to the physicians of the future. White spoke about the implications of big data, and how to successfully team up the surgical practice with computational science, which will result in a profound impact on predictive medicine, improved surgical outcomes, and patient care.

Mayank Kale[6] and Kyle Hirschfelder[7] of the University of Illinois shared their experiences and insights in deploying mobile technologies to rural healthcare workers to aid medical record management, collect quality research data, and deliver better care to underserved populations while using inexpensive technology and software solutions. This was part of their start-up initiative Blink Technologies, which is working to revolutionise distributed healthcare in India and Africa.

Dr Borghi[8] outlined key factors in healthcare management, including the Electronic Health Records model followed in Emilia Romagna (in Italy). The Institute Orthopedic Rizzoli[9] in Bologna has created a novel Biobank to collect and analyse data for state-of-the-art patient care and quality healthcare management[10]. The Cyber-brain[11], the first national centre specialising in the field of neurocybernetics, was also presented; it allows automated communication between machines and living organisms to provide highly advanced solutions, helping patients with brain pathologies and neurodegenerative diseases. Prof. Dall'Acqua of Boston Scientific[12] presented models for remote monitoring of cardiac patients. He highlighted that the benefits were not just limited to patient satisfaction, but also support the optimal utilisation of scarce resources.

Dr Mintrone[13] talked about Dedalus Company, the leading provider of healthcare software systems in Italy. She highlighted the importance of interoperable platforms to assist healthcare providers in collecting and sharing patient information and processes across a region or among multiple institutions. Using their innovative tools, providers are able to efficiently manage healthcare information while reducing risk, improving security and drastically increasing quality control.

Dr Caccia, President of the Italian Association of Information Healthcare Systems and Dr Leogrande, President of the Italian Association of Clinical Engineers, explained the need for new technical capabilities and better communication between computer scientists and clinician engineers to be able to address digital health's opportunities and challenges. Dr Elena Bellio[14] of the Bocconi University presented research regarding the changing paradigms in the patient's involvement in the course of their own treatment. These patients, equipped with digital information and using social networking, take a more active role in their healthcare management.

The Congress was a major step towards designing the training of future healthcare providers and to delivering comprehensive patient care using state-of-the-art facilities and emerging technologies, thus catering to changing demographics and shifting economies. It also fostered strong ties between the universities to help develop innovative solutions in digital health by leveraging their respective expertise.

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