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MIE2014 preface

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MIE2014 Preface

On behalf of the European Federation for Medical Informatics and the Turkish Medical Informatics Association, we are proud and happy to invite you to the 25th European Medical Informatics Conference in Istanbul.

The 25th edition of our conference – this is an important anniversary!

Twenty-five is the age of youth, but also the beginning of maturity; it is a time of transition. What better place to celebrate this anniversary than in Istanbul, with its unique history and its fascinating mixture of past and present, of old and new, of religions and cultures.

Information technology and the information sciences have also reached the age of maturity. They are revolutionizing the healthcare system and deeply changing the whole health landscape, as well as health culture. Boundaries are becoming less clear. There is no less well-defined state than the 'patient' state. We are sometimes healthy and sometimes sick, but most of the time we are somewhere in between – not so healthy. We should all care about staying healthy. The boundary between health and ill-health is becoming harder to draw. A similar situation exists between prevention and care. While the healthcare system has always predominantly been involved in the management of disease and care, a new trend has appeared, with citizens increasingly involved in wellness and the prevention of ill-health. The quantified self provides the necessary tools to accompany this societal transformation.

The most recent impacts of the emerging field of biomedical informatics will be presented during the MIE 2014 conference. New phenotypical data sources, especially those arising from the 'healthy world', which is not usual for the medical sciences, are becoming an important pillar of health determinants, together with genetics, environment and lifestyle. New devices, new sources of data, new roles for all the actors involved are being invented. This point is well illustrated by several reports on Google Glass. The difference between Second Sight glasses, which were available as early as 2002, and Google Glass in 2014 is aesthetic, connectivity and information. The technology was already there, but only the added value derived from connectivity and information have made the glasses an attractive device. Environmental data, lifestyle, bio-captors, phenotypes extracted from EHRs, not to mention all the -omics, constitute the 'holy grail' of life science research: a data coverage of the major health determinants. Will we be able to transform the incredibly large amounts of data currently being made available into a clever and smart "Big data". There are numerous challenges to be dealt with: technological challenges concerning the vast distributed volumes; semantic challenges concerning sources which are heterogeneous over time, of varying quality and reliability, and different contexts; ethical challenges when it comes to balancing public and individual benefits; and legal and societal challenges. All in all, the challenge of Big data questions the whole of society; its values, and its goals – not to mention the results. While this immature technology is promised a bright future, there are already enough reports stating that we need a more reliable methodology, especially when looking at preliminary work such as Google Flu Trends, which were demonstrated to be fast, inexpensive and wrong (Lazer et al., Science. 2014 Mar 14;343(6176):1203-5. doi: 10.1126/science.1248506).

Care process reengineering, the involvement of citizens and patients, continuity of care and health: these are only some of the numerous revolutions taking place. This dynamic is characterized by combined advances in technology and sciences, deep socio-cultural changes, and wide global adoption. And this is precisely the heart of the challenge.

We do not have the option to be spectators; we are actors. Thus, it is necessary to move forward while building an evidence base; making sure that knowledge can be shared and that experiences are reproducible. Amassing evidence and using standards are thus important aspects of our work. It is necessary to keep the ultimate goal of improved healthcare in mind, all the time directing projects and activities towards this goal. The building up of evidence has to be done while retaining some room for disruptive ideas, non-acceptable hypotheses and non-demonstrable theories. It is also our challenge to allow room to all those who think differently, for those who don't respect the evidence, for those transgressing truth; because truth is a contextual reality, only valid in a certain time and context.

Finally, because health determinants are local, because most health threats are local, and because the process of globalisation tends to lose sight of the personal, we must also be sure to balance truly global science with local experience. To quote Ilias Iakovidis: "Medicine is a global science, and a local art".

We would also like to acknowledge all our colleagues who devoted their time to the careful review of submissions. They have made it possible for the SPC to select the best papers and posters for inclusion in the proceedings. All submissions are Medline indexed and made available as open access through IOS Press homepage.

Istanbul, July 2014

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