Editorial

The current Applied Medical Informatics supplement issue is focused to the 38th RoMedINF conference organized by the Romanian Society of Medical Informatics (RSMI), and dedicated this year to digitalization of healthcare. The 38th RoMedINF edition is organized as a hybrid event hosted by the University of Medicine and Pharmacy Craiova with West University of Timişoara and Politehnica University of Timişoara as co-organizers.

The 38th RoMedINF conference stands as a beacon of progress in the filed of medical informatics and digitalization of health and healthcare, with benefits and challenges. Our invited speakers will guide the audience through specific topics such as the role of medical informatics in digital health, one digital health, big data, the role of requirements and regulation of medical devices in the context of healthcare digital innovation, trends and challenges in medical image processing and how to translate research into clinical impact.

This annual international event serves as a nexus for researchers, healthcare professionals, and industry experts to converge and explore the cutting edge of health informatics and technology. The active participants, from junior researchers to experts will present specific digital solutions able to solve explicit problems. The heterogeneity of topics ensures that RoMedINF remains at the forefront of addressing the most pressing challenges and opportunities in modern healthcare. RoMedINF's multifaceted approach to knowledge dissemination, featuring keynote speeches, oral presentations, poster sessions, and demonstrations, fosters an environment of active learning and engagement.

The benefits of digitalization could be classified based on whom they affect. For healthcare systems, digitalization can reflect in costs (better monitoring and lower readmissions or early diagnosis with lower long-term costs), proactive care by real-time monitoring (e.g., wearable devices), and public health surveillance (e.g., tracking of disease spread, monitor vaccination rates etc.). Digital solutions could benefit from increased efficiency through automation (e.g., automation – appointments, administrative tasks), to identify trends and to support clinical decisions. Patients could benefit from timely access to care (see for example telemedicine) and better personal engagement supported by apps and dedicated portals. However, the challenges exist and must be considered. The high implementation costs (upfront investment and ongoing maintenance), interoperability (making systems talk the same language), data privacy and security, ethical issues in artificial intelligence assisted healthcare, resistance to change and the divide (e.g., access inequalities and tech fatigue) remain the main issues of digitalization in medicine.

The 38th RoMedINF abstracts cover specific topics, such as applications of artificial intelligence in pattern recognition, classification and medical image processing and interpretation, one digital health, medical device regulations, digital literacy evaluation, automated handwriting recognition, HealthTech startups, implementation of technologies in healthcare daily workflow, ethics of artificial intelligence assisted medicine, communication technologies in medicine, biostatistics, bioinformatics, healthcare management, deep learning applications in medicine, technology and disease monitoring.

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