

Guest Editorial

The field of Digital Health can be considered to be a game-changer in the healthcare systems of today. With its vast potential and widespread applications, Digital Health is changing the way in which healthcare is delivered, potentially to all patients and citizens.

This symposium proceedings follows oral and poster scientific presentations, student theses and projects presented and discussed at DigiHealthDay. The DigiHealthDay is an international educational and networking event series organized by the European Campus Rottal-Inn, Technische Hochschule Deggendorf, Germany. Currently in its third edition, the DigiHealthDay-2022 took place on November 11th, 2022. This day-long symposium included keynote talks by leading German and international experts, and audience-centered panel discussions. The hybrid styled event centered around the theme “Global Digital Health – Today, Tomorrow, and Beyond.” It attracted more than 1000 participants from 100 countries who joined physically as well as virtually.

This annual symposium aims especially to stimulate new researchers in exploring solutions using modern Digital Health to tackle global health problems. This edition of the DigiHealthDay encouraged researchers to present their projects in themes such as EHR, health information systems, data standards and interoperability, telemedicine and remote health care, mHealth, IoMT, telemonitoring, health data management and analytics and privacy, security, trust, and patient engagement. A special focus was dedicated to Digital Health education, AI research, ethics and regulation.

We are excited to collaborate with the Journal of Applied Interdisciplinary Research jointly with the Ukrainian Journal of Medical Informatics and Engineering to present a collection of articles that were presented during the DigiHealthDay-2022. These articles are organized around the themes of the DigiHealthDay.

The first article introduces a novel approach to embed a social purpose into all innovations, including Digital Health innovations, primarily through training of future NHS leaders in England. Within the theme ‘Telemedicine and Remote Healthcare’, the next paper gives an overview of the growing use of Telehealth during the COVID-19 pandemic and its value in the care of older persons. In the theme of ‘EHR, Health Information Systems’ there are two papers that explore the construction of relational databases in information systems, the integration of healthcare information in information systems and the need for the creation of effective informational-analytical platforms. Both papers emphasize the importance of optimizing the data to deliver value, from their perspectives.

An exciting paper in the field of mHealth, IoMT, and Telemonitoring looked at the use of pediatric health applications to create a space for children to learn about health conditions, healthy lifestyles and preventative health measures. The next set of papers in the theme ‘Health Data Management and Analytics’ contains two articles that deal

with the need for a comprehensive real-time medical data management system and mechanisms for evaluating information in the Doctors' Portfolio. The next paper takes a novel system of views on the role of electromagnetic fields in the human body for understanding the essence of the course of metabolism, phenomena of biological life and health.

The special focus on AI Research features a brilliant study to predict the incidence of Dengue in the Philippines using an artificial neural network with humidity, rainfall, and temperature as independent variables. The second paper in this theme explores the issue of bias within AI systems used for health, including the risk of bias in the sources of data used, and their potential implications.

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Prof. Dr. Horst Kunhardt, Scientific Chair of DigiHealthDay

Prof. Dr. Georgi Chaltikyan, Organizing Committee Chair of DigiHealthDay

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