

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
Сумський державний університет
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Цифрові трансформації та інноваційні технології в економіці: виклики, реалії, стратегії

**Digital Transformations and innovative technologies in the
economy: challenges, realities, strategies**

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До збірника ввійшли матеріали щорічної науково-практичної конференції «Економічні проблеми сталого розвитку» імені проф. О.Ф. Балацького, в яких наведені результати наукових досліджень, виконаних молодими вченими та студентами різних країн із наукових напрямів, пов'язаних економічними, управлінськими проблемами сталого розвитку в різних сферах актуальних наукових досліджень та практичної діяльності інститутів і сучасних організацій.

Для науковців, викладачів вищих навчальних закладів, студентів, аспірантів, докторантів та всіх, хто цікавиться науково-практичними проблемами сучасної економіки й теорії управління.

The collection consists of materials from annual International scientific-practical conference “Economic Problems of Sustainable Development”. The abstracts represent the results of scientific research applied in different countries in different spheres corresponded to the economic and managerial problems of sustainable development of actual activities of the institutions and modern organizations.

The conference is intended for academic scholars, scientists, representatives of HEIs, students, Ph. D. students, Post-Docs and all who is interested in scientific and practical problems of modern economics and management.

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MODERN TRENDS OF DIGITAL BUSINESS COMMUNICATIONS AND INNOVATION TRANSFER IN MEDICINE

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The ICT spread, innovation transfer and global growth of interconnections have significant impact on research and development in such diverse field as medicine. Moreover, achieving the SDG involves ensuring health live, health care and well-being [1]. Today digitalization and e-business trends are actual in medicine sphere [2,3], and it has a positive impact on healthcare technology.

So, main tendencies of innovation transfer, digital business communications and e-business development in medicine are the following.

1. Storage of large health data brings together business information, social media, e-commerce, operations, transactions, and determines peculiarities for perspective. It provides lower medical errors, more effective staffing, preventive care.

2. Virtual reality in patients' treatment and its implementation change the approach to patients' diagnostics and doctors' learning / training (multiple sclerosis, early-stage Alzheimer's or Parkinson's disease, chronic pain medication, novice surgeon training of, a tool for planning operations, recovering after injuries or surgery, etc.).

3. The application of portable medical devices and wireless sensor networks in medicine makes it possible to improve the quality and efficiency of medical services by enabling physicians to remotely monitor and receive information about the patient's condition and to form a preliminary diagnosis. Due to e-technologies in medicine patients can get more preventive care and more information about their health.

4. Forecasting in health care, predicting which diseases may be a significant challenge in perspective become a popular communication technology too. The information, accumulated by marketing sources and big data, makes possible to form special recommendations about a healthy lifestyle.

5. Artificial intelligence in medicine is not only a method of digital business communications. Healthcare robotics has a great future and the potential to bring many benefits: to provide health care in regions where it does not exist today; to make pharmaceuticals distribution and production more efficient; to ease the workload of pharmacists and other medical workers; to help people walk again, and so on.

6. Blockchain is the latest technology to improve medical e-records. In particular, it is a computerized database or digital book that allows securely use exchange financial information with stakeholders through a network of computers

without the necessity of a third part (for example, band ID). Blockchain is aimed to increase security, accuracy, and precision of medical e-records.

7.5G mobile technology helpsto improve the quality of emergency care.5G has expanded mobile broadband, which is akey componentin a new revolution in mobile communications. So, it can run faster in one hundred in comparison with current mobile technology.5G will give a possibility of instant streaming and information downloading, a high quality of video conferencing. It also provides accurate images of organs, bones, and so on for physiciansonline, in real time, which will significantly reduce the probability of misdiagnosis.

Concluding this research, it should be said that innovation is a challenge of modernity, the key target of which is to improve and optimize the system work in general and, in particular, doctors' work, increase patient outcomes, decrease medical errors, and expenditures. Medical applications anddevices based on artificial intelligence, telemedicine and other innovations in medicine are greatly changing healthcare relationship between patients and doctors. It also a new way of sharing data, making plans of treatment, decisions, health results. Thanks information and communication technologies in medicine, patients receive better treatment with the special tools of virtual reality, 5G mobile technologies, TV healthand other different medical devices. At the same time physicians can optimize their casual work due to systems based on artificial intelligence.

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