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**Abstract:**

The paper is devoted to selection of the most crucial directions of research in ICT domain that could be implemented in the Republic of Kazakhstan. In the paper we evaluated the dynamics of the annual changes in the number of publications and convergence of ICT sub-domains based on data of Scopus, EBSCO (Information Science & Technology Abstracts, Academic Search Complete) and Google Scholar. To analyze the place of Kazakhstan, we considered indexes shown in the Global Competitiveness Report. As a result, the most rapidly developing areas of research were revealed (big data, machine learning, 5G, augmented reality, and etc.). The semantic network of the most modern concepts of the ICT domain was constructed that visualizes the binary relationship between the components and their relative importance. By using comparative analysis of the number of publications in the leading countries and some other countries including Kazakhstan, we selected some key domains which need to be seriously improved onto the way of development science in RK.

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