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## SOME EXAMPLES OF DIGITAL TRANSFORMATION OF SCIENTIFIC ACTIVITIES IN THE COVID-19 PANDEMIC

The last year has brought significant changes in the principles and approaches of the people jobs in almost all areas. The impulse for such changes was the Covid-19 pandemic, which affected all countries. The borders closure, lockdowns at the local and national levels demanded a revision of the job approaches and principles. Digital technologies began to come to the fore. Digitalization, which started in recent decades with the initiation of the Industry 4.0 approaches and principles introduction [1], has received an additional impetus in its development. It has demonstrated positive results and identified problem areas already at these stages.

So, one of the problem areas, strange as it may seem, turned out to be the access of countries' residents to a high-speed Internet connection, the availability of personal computers, and the widespread use of communication technologies to create workspaces. If, before the pandemic, the communication technologies use was partial and was for infrequent management meetings, access to which was provided by the enterprise. The pandemic required them to be regularly used for business support, and access and ownership of them became the personal responsibility of employees. The pandemic period has shown that the individual level of the Internet connection and the employee's hardware base are not always necessary and sufficient to solve work tasks. Distance work has identified the problem of the availability and personal computers using at home for the job and study of the whole family. Moreover, it also outlined the problem of the lack of personal workspace in private residential apartments. The pandemic revealed the countries' informatization level, demonstrating the results of previously adopted

strategic decisions on the development of networks and the Internet technologies use among the population [2].

The pandemic period has made its adjustments to the scientific world environment. The borders overlapping did not allow holding conferences, meetings, seminars in face-to-face communication mode. On the other hand, the pandemic should not have caused a complete rejection of scientific activities. Solutions were in the various information and communication technologies use and the organizers' creativity who tried to digitalize the usual forms of the scientific ideas exchange into digital ones. If the presentations of plenary and sectional reports were transformed into digital form quite easily and quickly, then poster presentations and social events required some creative solutions. For example, within the framework of the Dortmund International Research Conference in 2020 (Dortmund, Germany) [3], poster presentations were in the form of video messages, which were recorded in advance and posted on the conference website. All participants had the opportunity to familiarize themselves with it in advance. During the poster sessions, all papers were divided into groups, and everyone could join the group and ask their questions about the poster.

In addition, it was a creative approach regarding the gala dinner. Each country presented its traditional dish. The dish choice was made in advance by the conference participants from the same country. The country's representative prepared the chosen dish before and was presenting it online to all the other conference participants with information about the dish, and the country's traditions.

Global studies have shown the pandemic has an essential impact on social life [4-7]. The lack of face-to-face communication reduces satisfaction from participation, and but their complete absence can contribute to the dying out of international activity. Therefore, using digital technologies in the process of scientific activity slightly reduces the level of interaction and the dedication of participants to

achieve a result, compared to face-to-face communication, but they allow continuing research and aim at finding and applying new approaches, methods, and technologies.

So, for example, during the ViMaCs project implementation (financing by DAAD) [8], more students took part in the educational schools to evaluate the developed training modules. It would have been impossible within the framework of face-to-face education. On the other hand, technology reduces the students' attendance because it allows them to "be present" in the class virtually (only by connecting) but at the same time "absent" on an intellectual-mental level. On the one hand, it gave the possibility to assess the students' self-motivation and self-development levels. On the other hand, it gave to evaluate the teachers' digital readiness level of technology use, as well as the creativity and speed of change in teaching approaches.

Moreover, the ViMaCs and Work4Ce (co-founded by the Erasmus + Programme of the European Union) [9] projects realization, which are implemented by the Project Management Department of KNUBA in an international consortium with universities from other countries, has demonstrated the ability to manage scientific projects at the international level based on the widespread use of various information and communication, network and cloud technologies. Communication technologies help meetings conduct and communicate in the scientific community (for example, ZOOM and MS Team). For quick information exchange, social networks are used where research areas groups were created (Telegram, Viber). The discussion of the project's implementation results became possible not only in the offline discussion mode but also in the online using the software that makes research results and materials available for public access (for example, Confluence). In addition, the latest technology expands the opportunities for increasing the development level since it allows to learn from colleagues through familiarization and analysis of their research results via seeing into in the project's public network.

Also, digital technologies allow organizing Open Communities of Practice (OpenCops) from different countries. By conducting research and creating new project products, a unique opportunity appears in real-time, giving the possibility to take into account the competencies of all colleagues to obtain innovative and relevant results. The regular colleagues' contacts in OpenCops provide the project's product by changes and update permanently.

We hope that solutions ways fighting the pandemic will be successful and will lead to the restoration of business activity of the planet's population. However, this activity is unlikely to remain the same as it was before the pandemic. Humanity will return to travel and meetings, but the digital technologies will have not been used on the previous level. Their development and application received a new impulse and development direction, which will lead them in the future.

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# IMPROVEMENT OF QUALIFICATION OF CIVIL SERVANTS ON THE BASIS OF THE PROJECT APPROACH

For employees of public authorities and local governments, the main source of new knowledge is training. It is through the in-service training system that civil servants have the opportunity to achieve a new level of professionalism and culture, to formulate the ability to competently and responsibly perform managerial functions, to gain skills in implementing the latest socially oriented technologies and innovation processes. Today, the system of professional development is seen as an