

Russia: Платформа Университета 20.35 (Goonline.2035.University)

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Type of intervention: governmental (Agency for Strategic Initiatives, a Russian autonomous non-profit organisation founded by the Government of Russia)

Website: <https://2035.university/>; <https://goonline.2035.university/>;
<https://steps.2035.university/>; https://vk.com/go_online_university

General description

On 16 March 2020 the Ministry of Science and Higher Education of the Russian Federation (MoSHE) recommended that all Russian universities switch to online provision to ensure continuity of teaching and learning during the COVID-19 crisis, using online platforms and modern technologies. This transition seems to have been comparatively straight-forward for those universities which had already invested in digitalisation. However, universities that had not developed relevant infrastructure and staff competencies faced significant difficulties. Giving lectures online is a relatively easy aspect of distance learning; implementing teaching methods focused on skills development, such as project-based learning, and keeping students engaged and motivated turned out to be a more challenging task, even for advanced systems.

In particular, the shift to full-time online learning has brought changes and challenges to the teaching of 21st century skills, such as social and emotional skills, communication skills, problem-solving skills, flexibility, adaptability, creativity, critical thinking and others. During the crisis, such skills may not be a

The coronavirus crisis led schools and universities to rapidly transition to a distance-learning mode, via the Internet, television or radio. This series documents some country initiatives that ensured education continuity for all using technology and provided support to teachers, students, and their families.



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2 | RUSSIA: ПЛАТФОРМА УНИВЕРСИТЕТА 20.35 (GOONLINE.2035.UNIVERSITY)

priority for many faculty members and institutions as they may be understandably focused on technical issues and academic content knowledge.

In this context, University 20.35, the first digital network-based university in Russia, established in 2018 by the Agency for Strategic Initiatives (ASI) with the aim to support the digital economy, launched the goonline.2035.university (GO Online) platform. This new digital platform aims to help universities in moving swiftly to distance learning and to provide students and staff with ready-made solutions for online education.

During the pandemic, the motto of this initiative was “How to increase effectiveness of educational process during the quarantine”. It views the disruption as an opportunity for education systems to improve and become more efficient. The platform aims to help its users update the format and content of their educational programmes and provides tools for organising project-based learning online.

The main idea was to offer students in Russian universities an intensive online project-based course that would allow them to work on real business problems and develop their practical and communication skills. University 20.35 Digital Platform brings together online educational activities of many universities and online courses from leading online platforms (for example, Coursera and the National Online Education Platform) and provides recommendations about them to support students’ personalised educational path.

Just a month after the pivot to online as a result of COVID-19, the University 20.35 launched a new educational social service - STEPS. STEPS is addressed to teachers of schools and universities and gives them the opportunity to create their own educational space with various online resources from any platform. Teacher and artificial intelligence recommendations also help students maintain their personal educational path and / or share their learning experiences with other students.

Moreover, University 20.35 has offered the following activities: (i) webinars on the VKontakte (a social network) channel about available tools, methodology and best practices for distance online learning; (ii) a marketplace of services which could help universities to switch to online provision; (iii) free access to online courses on Artificial Intelligence (AI) and Machine Learning.

Main problems addressed

A need to build skills and experience in higher education related to online learning. The COVID-19 pandemic has transformed the learning environment of higher education. Institutions had to rearrange the educational process quickly and this involved facing different challenges. How to retain students’ attention? How to record a lecture at home and make it interesting and catching? How to support students’ social and emotional learning and well-being from a distance? How to organise efficient group discussion and teamwork with students? How to arrange student practice and performance? University 20.35 provided a suite of materials and tools to support institutions and faculty members in meeting those challenges

Support for online student team work and project-based learning. When campuses closed, sufficient resources and information about distance learning were not available and University 20.35 decided to support the higher education system by creating an online user-friendly platform and providing guidelines for teachers and students. The main feature of this initiative is to maintain project-based learning and teamwork for students studying online. The platform facilitates the use of team work, joint project work, discussions and communication between students, which is crucial for the development of 21st century skills.

Personalised education pathways on the basis of robust digital data. Another important priority is to create individual learning pathways for users with the help of AI. The authors of the online platform invite teachers to organise online classes and testing through videoconferences, propose online courses and digital content to strengthen educational programmes, arrange project work online, create individual educational trajectories and analyse group work based on digital data. Students are invited to use online conferences and messages to stay in touch with teachers and classmates, to take free extracurricular online courses

from University 20.35's partners, and benefit from personalised education programmes based on their skills and needs, during quarantine, when they may have more time to master a new digital profession and even launch a start-up.

Mobilising and developing resources

University 20.35 has built on previous experience, knowledge and infrastructure for this initiative. Since 2018, University 20.35 has supported the digital transformation of the Russian higher education system. Together with leading Russian IT-companies, it has created the Russian Educational AI and the digital educational platform of University 20.35, which is now integrated with its new GO Online platform.

The institution provides an intensive training programme for university management teams and has developed and implemented various cutting-edge technological solutions at such workshops, including:

- Developing individual student pathways with AI assistance;
- Recording digital footprints: AI analysed the participants' interaction in social networks, the results of completed tasks, geolocation, uploaded photos and videos, etc.
- Tracking changes in participants' mindsets through semantic speech analysis;
- Gathering biometric data to estimate the level of stress and fatigue at different stages of the programme;
- Creating a competence profile of each participant linked to key national technology development programmes.

In two years, University 20.35 has accumulated extensive experience in organising efficient teamwork, which it has used to inform its new platform and channel for online learning.

Fostering effective use and learning

A platform to support online team and project work. The new GO Online platform was designed in a way that universities could engage students in team project work, organise teamwork with distributed participants, give free access to educational content and help students to create learning pathways. It allows teachers to receive information about which tasks a team is currently solving and how tasks are being distributed among students. Moreover, the platform gives personalised recommendations for development to each team member and provides universities with aggregated data on students' activities. Thus, the platform fosters interaction by analysing students' data in real time. Due to the COVID-19 pandemic and the resulting challenges facing the higher education system, University 20.35, together with the Vkontakte social network, has also launched an online social media video channel for teachers and higher education management.

Using AI to create individualised problem-based intensive programmes for students. One of the distinctive features of the initiative is the use of AI technologies and Big Data for maximum personalisation of the educational programme. University 20.35 can track users' actions and based on the obtained data, the AI provides the participants with personalised recommendations for further training. This is a key strategy to support effective learning.

University 20.35 organises 2-month intensive programmes for students where they can cooperate with participants from other regions and even from abroad and form a team to solve a specific task from partner companies. In usual circumstances, such intensive programmes take place offline and in-person at partner universities and may include some blended online activities. Now that the offline model has become impossible, the GO Online platform proposes online intensive programmes for anyone interested in the project.

4 | RUSSIA: ПЛАТФОРМА УНИВЕРСИТЕТА 20.35 (GOONLINE.2035.UNIVERSITY)

First, an applicant goes through a diagnostic phase, where the system, with the help of AI, analyses their skills and psychological characteristics and suggests relevant courses for self-development on the basis of this information. Second, the participant chooses a task among those proposed by a university or a technological business company. There are several available tasks published online, such as developing a prototype for an energy-saving home, planning a geoinformation system startup, or designing a soil composition monitoring device. The topics cover various fields and require different skills – from operational to engineering – which makes such projects accessible to students with different backgrounds.

5-7 students gather around one project and University 20.35 provides tools, master classes and courses and helps them to cooperate effectively as a distributed team. Finally, each team presents the results of their project. University 20.35 has suggested to partner universities that they can replace regular in-class student practice with such online intensive programmes during the COVID-19 pandemic.

Materials and tools to support teachers to build their knowledge of online learning. The GO Online platform has gathered useful materials and tools for teachers and university management on how to conduct online lectures, organise webinars and virtual rooms; how to use online courses and available resources or create their own; and how to implement project-based learning and personal education.

The GO Online channel complements the platform and provides:

- Practice-oriented video modules with practical solutions and life hacks about how to start and maintain engagement in distance learning, what to use, what is effective and what is too complicated and time-consuming;
- Live streaming of discussions with teachers about improving current practices, eliminating bottlenecks, and sharing practices from the field;
- Guidelines on using laboratories with simulators and organising distance work with the equipment.

The channel also addresses the following topics:

- Student practice in new circumstances
- Project-based learning and using real tasks from business
- Relevant content for teachers to be used in their online lectures
- Physical education

The channel is innovative in several areas. Its developers highlight that, first, there are always two levels of content: for beginners and for those who are more experienced, so the users can easily choose what is relevant to them. Second, the comments under the videos provide not just feedback, but also useful data for the AI, which analyses requests, comments, answers and creates sequences between the videos for each user. The system navigates and personalises the content. Moreover, the developers teach university leaders how to collect digital footprint information and manage the educational process on the basis of this data.

Implementation challenges

Demand on student time. One challenge was related to the lack of time that students had to spend following a personal learning path. Most Russian universities have switched to training via video conferencing and increased the number of homework assignments for students. The students found themselves in an unfamiliar situation and were not ready to experiment with individual curriculum and undertake new project assignments. Despite this, 29 universities decided to join the initiative within one month of the start of the lockdown, and there were 4 300 students using the platform in June.

Lack of university budgets. Another challenge was the lack of a budget in universities. Universities spent a lot of time and budget on transferring lectures online and on measures to combat COVID-19, and could not spend more on personal and project training. As a result, University 20.35 has to cover the costs of online courses mainly from its own budget and this limits the number of students that can be served by

these courses. However, numbers remain relatively substantial: in November 2020, University 20.35 had 59 universities and over 10 000 students and offered courses from over 10 educational platforms, including Coursera.

Moving beyond student audiences. It was clear that students were not the only category that could benefit from online learning and University 20.35's platform during the pandemic. University 20.35 therefore designed projects to enable technology and digital content to benefit various audiences. For example, in September 2020, University 20.35, with the financial support of the Russian government, launched a new project for all citizens based on digital certificates: anyone could get a certificate and use it to take online courses from various educational organisations and online platforms. The main goal was to give citizens new competencies in digital professions in order to improve their professional experience in new circumstances or to get a new job. As a result, 33 000 citizens from 48 regions received a certificate and began training on the University 20.35 platform.

Transforming existing programmes into new formats. University 20.35 had to carefully innovate to ensure that they were able to deliver their existing programmes in new formats that met different needs during the pandemic. For example, in November 2020, University 20.35 successfully implemented a new format of a two-week online programme and the world's first accelerated learning and intensive learning programme for teams and start-ups creating products based on AI technologies. More than 700 teams were selected from 16 000 individual and 1 800 team entries. In the digital space, 11 000 events were held with the participation of more than 800 experts and teachers from 28 universities and 118 industrial companies.

Monitoring success

In general, in 2020, the number of users of the University 20.35 digital platform has increased from 110 000 to 430 000 people. Thus, over 300 000 people began their personal educational journey using AI-based recommendation systems analysing their digital footprints. The new STEPS service has become a useful tool for teachers and professors of Russian universities – over 1 200 digital spaces have been created. The GO Online platform is still popular in the community of teachers and professionals and is used to find, develop and implement new technologies, but the focus of new innovations has shifted from online technologies to personalisation and student engagement.

Adaptability to new contexts

The initiative is open to every institution and student in Russia and all universities could join. Participation does require a certain level of internal culture, openness to cutting-edge solutions such as the use of AI, and readiness for technological changes. The resources created during this crisis are likely to continue to be used after the pandemic and will be developed further.

The experience of University 20.35 and its platforms could be used in every country where digitalisation of higher education is part of the national strategy.

Key points to keep in mind for a successful adaptation

1. Build on your existing experiences and the resources already developed and make them available to a larger audience
2. Ensure online platforms and channels are easy to use, by:
 - making the interface user-friendly and informative
 - testing the platform and its content with potential users
 - providing guidelines for teachers and students and rapid help service available on the platform
 - partnering with social media
 - gathering useful materials and tools for students, teachers and university management
 - being open to every institution and student
 - having different levels of content: for beginners and for those who are more experienced
3. Learn from your experiences to propose rapid solutions to vital problems in an iterative process
4. Create a community of like-minded partners
5. Use technology (AI, Big Data) for analysis to inform individualised learning pathways for both students and faculty members and to provide universities with aggregated data on students' activities
6. Demonstrate benefits in order to motivate users to change by
 - showcasing examples and successful stories and sharing experience of others
 - explaining the necessary steps to achieve goals
 - providing opportunities to develop 21st century skills
 - giving personalised recommendations for development to each team member
 - collecting materials and tools to support teachers to build their knowledge of online learning advantages
7. Provide necessary support and tools, such as:
 - educational social services for teachers to create their own educational space with various online resources from any platform
 - tools to facilitate team work, joint project work, discussions and communication between students
 - online channels on social media
 - lists of free available courses and material
 - a tool to build personalised learning paths
8. Bring knowledge together and become a communication platform for sharing experience and best practices to support the digitisation of higher education institutions, during and post pandemic

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