HIGHER EDUCATION: PANDEMIC LESSONS

Prompt and strategic measures to develop the system

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The purpose of the report (June 2020)

Learn from the experience of extreme mode
of work during the first months of pandemic in
the system of higher education

March 15, 2020

The purpose of the second report (October 2020)

- Justify efficient and strategic measures
  of addressing the problems of higher education
  that emerged during the pandemic
- Indicate directions of the system development

Rectors – members of the working groups during the report preparation

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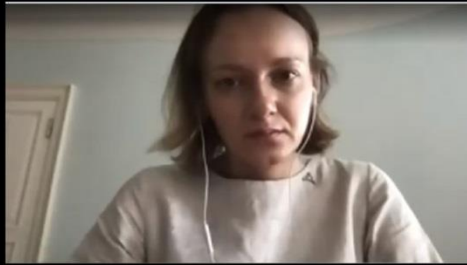**A.A. Fedorov**, Acting Rector of Immanuel Kant Baltic Federal University

A.A. Chernikova, Rector of MISIS National University of Science and Technology

Analytical Basis of the Report

35 411
university students
participated in the survey

33 987
teachers of Russian universities
participated in the survey

580
universities in digital
infrastructure monitoring

2 700 000 +
analyzed posts
in social networks

130
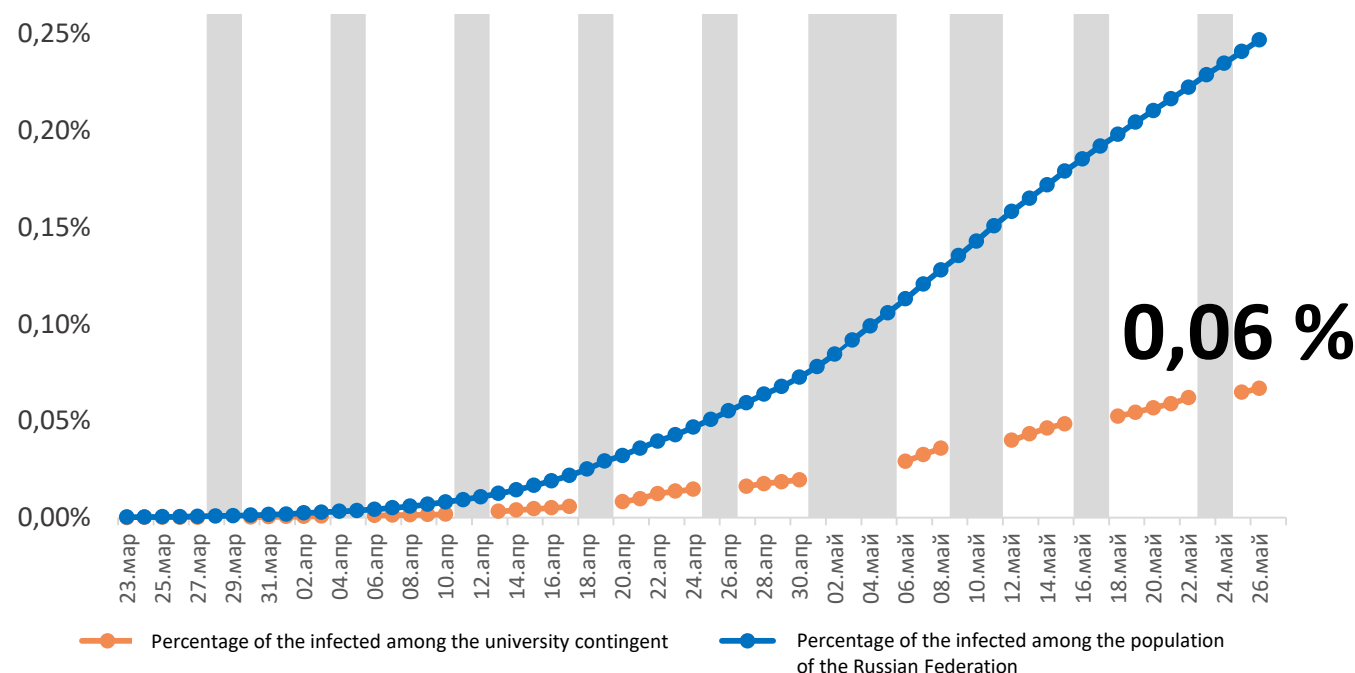in-depth interviews
with university teachers

45
in-depth interviews
with university rectors
(supported by The Russian Union of Rectors)

Case study
on Russian
and foreign
universities

Universities did not allow the spread of the infection and were able to ensure the continuity of the educational process

740
universities

2 395 555
students
775 873 living in dormitories

633 500 staff members,
19 % of whom are over 65 years old

0,06 %

Chart axis labels: 0,25% 0,20% 0,15% 0,10% 0,05% 0,00%

X-axis: 23.мар 25.мар 27.мар 29.мар 31.мар 02.апр 04.апр 06.апр 08.апр 10.апр 12.апр 14.апр 16.апр 18.апр 20.апр 22.апр 24.апр 26.апр 28.апр 30.апр 02.май 04.май 06.май 08.май 10.май 12.май 14.май 16.май 18.май 20.май 22.май 24.май 26.май

Legend: Percentage of the infected among the university contingent — Percentage of the infected among the population of the Russian Federation

The higher education system coped with the STRESS TESTING

80 %

of universities switched
to distance learning
by 23.03.2020

> 1 000 000

academic courses
were simultaneously held in
an online format

The pandemic has shown a strong heterogeneity of universities and the risk of further stratification

20 %
of universities managed to maintain studying in a synchronized mode

60 %
switched to distance learning with the loss in quality of education

20 %
carried out part-time studying with the loss of quality

in **15 %** of universities students "got lost"

University teachers coped with the problem but they felt psychologically uncomfortable and lacked competencies

245 000 university teachers | **96 %** moved online

60 %
have not used distance learning forms before

40 %
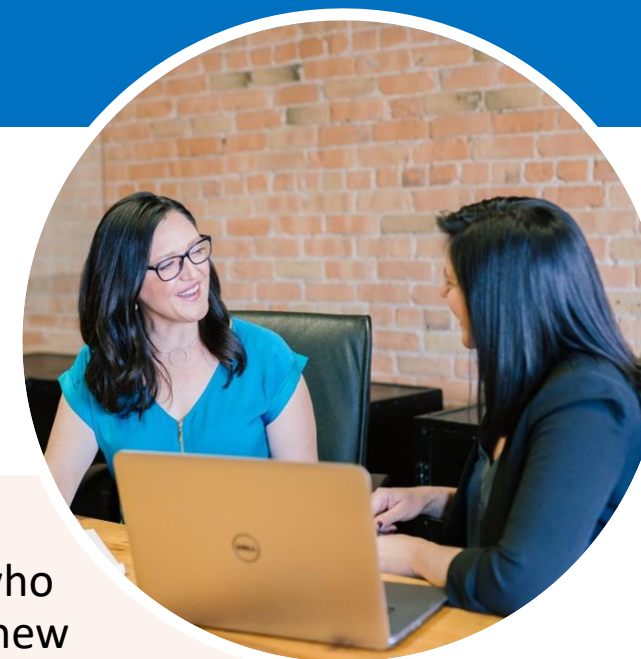feel tired of the increased amount of work

88 %
skeptical about remote forms of teaching

20 %
needed help from digital volunteers

the proportion of teachers who view digital technologies as new opportunities to increase the availability of quality education has increased from

30 % to **70 %**

9

Students need social and psychological support, individual trajectories, development of independent work skills

34 %

do not consider
the remote format
less effective

total satisfaction with online
formats has decreased from

21 % to **14 %**

40 %

of students notice a lack of
communication
with teachers

40 %

witnessed decline
in income
due to suspension
of employment

#МЫВМЕСТЕ

30 000

students took
part in the
#МЫВМЕСТЕ
movement

64 %

note that
there is more time
to sleep

55 %

get less tired after studying

49 %

got more
free time

10

The problem of inequality in access to quality education has become apparent

13 %

of universities
do not have even
a minimal infrastructure

11 %

of universities
have a sufficient digital
infrastructure

30 %

of students
from low-income
groups of the
population lack
functional
technical devices

Most universities lack a full-fledged infrastructure for organizing distance or blended learning

New important areas

- Information Security
- Digital campus
- National systems of collective use
- Development of service market to manage learning – LMS, educational process management – EMS, virtual learning environments – VLE

88 % of universities said they had LMS, but only **45 %** used them

The pandemic has demonstrated the need for developing a new pedagogy

PBL   Digital didactics

Potential
of digital technologies

+

Direct interaction
between teachers
and students

Independence and horizontal communication of universities guaranteed successful solutions of the problems

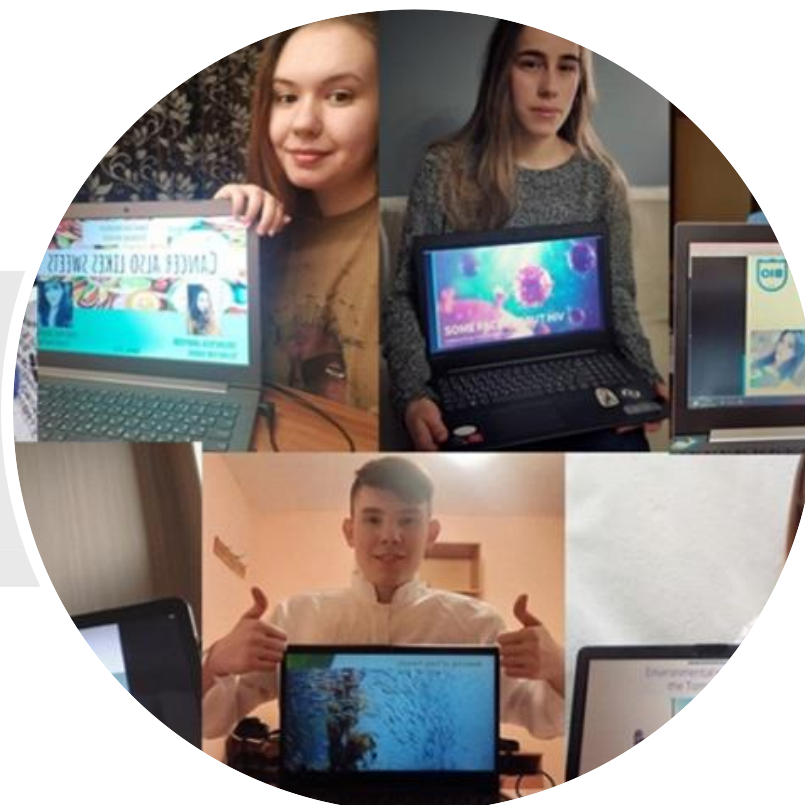**20 %**

of universities expected instructions from the regulators and approached problems formally
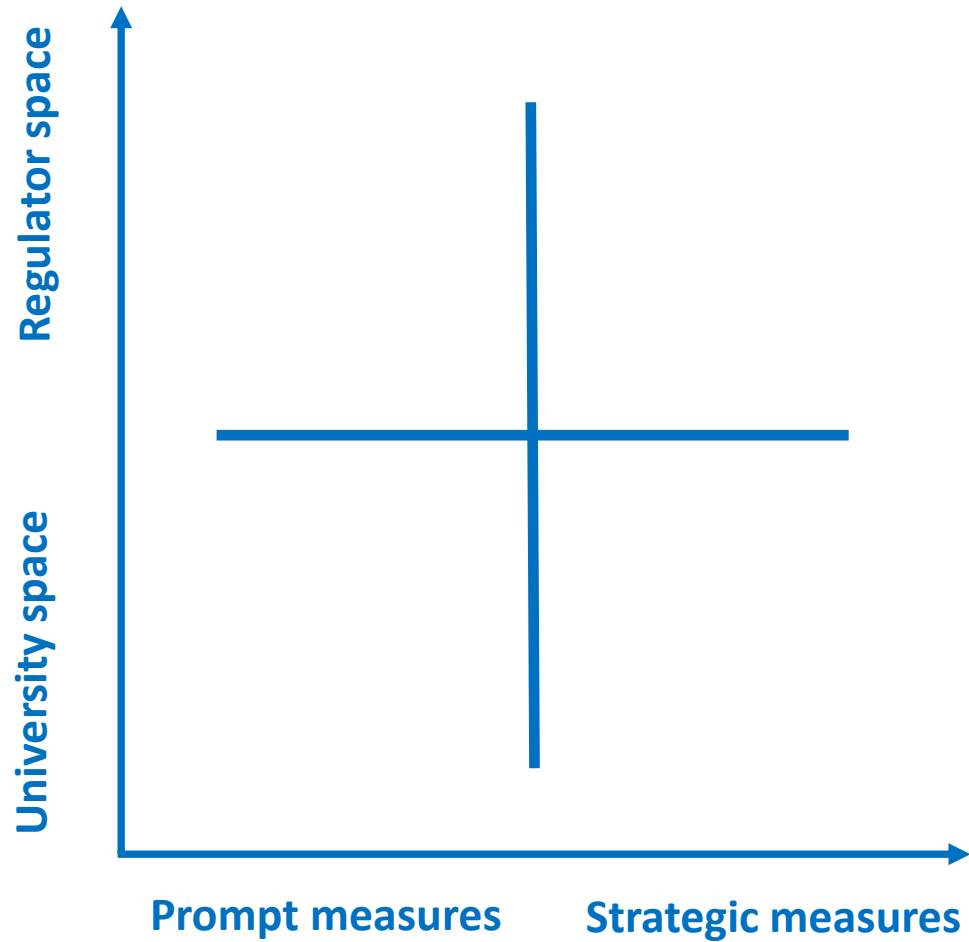
70 %

of universities adopted the best practice and were able to adapt

Bifurcation point in Higher Education

Decision Matrix

Regulator space

University space

Prompt measures   Strategic measures

Directions of Changes

1. Updating competencies of university teachers
2. Support for student development in new conditions
3. Transformation of the educational process, promotion of digital technologies and new didactics
4. Overcoming inequality and making quality education accessible
5. Implementation of new approaches to the organization of research and innovation activities
6. Modernization of digital infrastructure in higher education
7. Improving models of the university management
8. Developing higher education network
9. Changing mechanisms for State regulation of educational activities
10. Ensuring economic sustainability of the higher education system in the new conditions

Updating competencies of university teachers

University Level

PROMPT MEASURES

- Implementation of monitoring and encouraging system for university teachers that ensure the use of digital technologies in the teaching process (including the introduction of corresponding indicators in contracts)
- Development of the "digital volunteering" to help university teachers of the older generation
- Updating functional models of university teachers' activities, including those in connection with the appearance of the facilitator, moderator, and tutor roles

STRATEGIC MEASURES

- Creating an ecosystem of online services for methodological assistance to university teachers
- Development of the system of certification and quality assessment of courses including help of students
- Creating centers for the development of pedagogical skills and/or professional schools that influence the entire educational environment of the university

Federal Level in the Regulatory System

PROMPT MEASURES

- Creating a list of recommended resources and digital tools for designing online courses, conducting independent inspection of the selected resources, and preventing the monopolization
- Running the competition of projects and scientific developments on modern university didactics and online education in 2021
- Updating models for determining the structure and volume of the workload for university teachers in order to take into account pre-recorded teaching materials, including course updating and preparing materials for each distance lesson

STRATEGIC MEASURES

- Creation of a national service for testing teachers' level of digital literacy and building a national monitoring
- Creation of programs for domestic and international academic mobility of teaching staff, including virtual ones, to improve pedagogical competence
- Distribution of open online courses aimed at developing digital competencies and modern pedagogical practices on the basis of the federal platform "Modern Digital Educational Environment"

Support for student development in new conditions

University Level

PROMPT MEASURES

- Involvement of students into the educational process: management of their own educational trajectory, creating conditions for the self-organization of study groups
- Creating a laptop loan program for students and providing technical help for their personal devices during distance learning
- Implementation of student employment programs: creating temporary jobs at the University

STRATEGIC MEASURES

- Implementation of models and methods for life and educational group trajectories, including use of tutor services, advisors, and mentors
- Development of online formats for student Olympiads, case-championships and other tools for independent assessment of the quality of education
- Encouraging students' readiness for constructive dialogue by means of managing and support of the student media centers

Federal Level in the Regulatory System

PROMPT MEASURES

- Making changes to the annual quota admission plan (redistribution of admission numbers for countries unaffected by COVID-19)
- Making changes to the "procedure for admission to educational programs of higher education – Bachelor's, Specialist's, Master's" in terms of extending the deadlines for accepting documents from international students (allowing universities to set deadlines for admission to Master's programs at their discretion while taking into account all possible ranges)

STRATEGIC MEASURES

- Development of measures to monitor the effectiveness of the use of the Scholarship Fund
- Conducting regular monitoring of the psychological state of students in Russia, identifying significant factors of the existing infrastructure for psychological well-being, its quality, etc.
- Creation of a motivational scholarship model (the basic amount of the state scholarship should be brought to the minimum wage level in the corresponding region, including student-winners of National Olympiads since 2021)

Transformation of the educational process, promotion of digital technologies and new didactics

University Level

PROMPT MEASURES

- Increasing interactivity of training courses: game practice, Scenario-based learning (SBL), use of VR, AR technologies and online tools to translate the educational process into a mixed learning modes

- Cooperation with other universities to create a common learning ecosystem, collections of open educational resources, as well as complement programs with the best courses prepared (developed) by other educational institutions

- Implementation of electronic services aimed at collecting feedback from students to monitor the quality of programs and their regular updating

STRATEGIC MEASURES

- Transition to the blended learning model, which implies flexibility in the distribution of hours and forms of interaction between teacher and student (classroom, online / offline) within the framework of the discipline

- Using adaptive techniques based on artificial intelligence to personalize education and improve its quality

- A shift in emphasis from predominantly classroom teaching with formal independent work of students to a system of management and support for independent work of students by a teacher, with an increase in the share of pre- and post-class work in the network using LMS tools

Federal Level in the Regulatory System

PROMPT MEASURES

- Grant support for universities in the design and production of open online courses and content, as well as support for universities that provide their own electronic libraries and collections of online courses or content

- Support for regional competitions for university teachers in the formation of modern methodological developments

- Increasing in funding for "Education of Citizens at Universities" project as part of the FP "New Opportunities for Everyone" (National Project "Education") by 1 billion rubles for priority support of continuing professional education programs on blended learning

STRATEGIC MEASURES

- Creation of a business co-financing program in the development of simulators, educational games and other services for the implementation of educational activities at the university

- Creation of a system of recommendation services and certification of the quality of online courses, depending on their content and methodological readiness for use, as well as the development of recommendations for users

- Creation of centers of pedagogical excellence and / or vocational schools of education with the function of developing new educational methods and scaling up successful experiments