HERB

Higher Education in Russia and Beyond

Challenges for Student Experience in Russia and Eastern Europe

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Dear colleagues,

We are happy to present the third issue of Higher Education in Russia and Beyond, a bulletin that is aimed at bringing current Russian, Central Asian and Eastern European educational trends to the attention of the international higher education research community. The new issue is devoted to the reflections on students' experience based on various empirical studies. Leading universities in emerging European and Central Asian countries, as well as in Russia, target research excellence and internationalization. Today one cannot deny that the more universities become active in research, the more teaching mission and student involvement become second-tier interests. At the same time, post-Soviet countries have faced a student boom which has radically changed the higher education landscape and questioned historically embedded patterns of students learning in terms of educational choice, work–study balance, student relations and engagement in various civic activities. Besides, the ongoing technological innovations bring new educational possibilities for thousands of students all over the world, such as MOOCs. This issue of HERB is aimed to demonstrate the diversity of topics related to students' experience and learning process. The authors represent different research areas and focus on various dimensions of student population in their studies. The papers presented in this issues discuss the topics of university governance, civic engagement, student employment, peer effects, new forms of knowledge transition. Many of them are based on recent empirical findings. We hope that this will provide a stimulating reading on the role of students in higher education dynamics and their impact on the future society.

'Higher Education in Russia and Beyond' editorial team

HSE

National Research University Higher School of Economics is the largest center of socio-economic studies and one of the top-ranked higher education institutions in Eastern Europe. The University efficiently carries out fundamental and applied research projects in such fields as management, sociology, political science, philosophy, international relations, mathematics, Oriental studies, and journalism, which all come together on grounds of basic principles of modern economics.

HSE professors and researchers contribute to the elaboration of social and economic reforms in Russia as experts. The University transmits up-to-date economic knowledge to the government, business community and civil society through system analysis and complex interdisciplinary research.

Higher School of Economics incorporates 47 research centers and 25 international laboratories, which are involved in fundamental and applied research. Higher education studies are one of the University's key priorities. This research field consolidates intellectual efforts of several research groups, whose work fully complies highest world standards. Experts in economics, sociology, psychology and management from Russia and other countries work together on comparative projects. The main research spheres include: analysis of global and Russian higher education system development, transformation of the academic profession, effective contract in higher education, developing educational standards and HEI evaluation models, etc.

CInSt

The Center for Institutional Studies is one of HSE's research centers. CInSt focuses on fundamental and applied interdisciplinary researches in the field of institutional analysis, economics and sociology of science and higher education. Researchers are working in the center strictly adhere to the world's top academic standards.

The Center for Institutional Studies is integrated into international higher education research networks. The center cooperates with foreign experts through joint comparative projects that cover the problems of higher education development and education policy. As part of our long-term cooperation with the Boston College Center of International Higher Education, CInSt has taken up the publication of the Russian version of the "International Higher Education" newsletter.

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Student Representation in Higher Education Governance in the Western Balkans

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Introduction

Student representative associations – student unions, councils, guilds, bodies, parliaments, governments – are those whose primary aim is to represent and defend the interests of the collective student body. All of these student organizations are similar in that they organize, aggregate and intermediate student interests, provide services for students and organize student activities. Student governments have historically played a visible role in university governance: from the times of the medieval Bologna universities to the democratic collegiate model of university governance that developed in Western societies after the 1960s student revolts. They also played an important role in European postwar authoritarian regimes, such as those in the Western Balkans: Albania and former Yugoslavia, where the state intervened by imposing one compulsory, non-competitive national student organization with branches at universities thus deliberately establishing a representational monopoly controlled by the regime. After the democratization, universities in these countries have also shifted to a democratic collegiate model of governance, and autonomous representative student associations have sprung across the region both at national and institutional level.

Two potentially conflicting agendas concerning student representation are currently underway in Europe. Within the framework of the European Higher Education Area, there has been virtually unprecedented political affirmation of student participation in higher education governance by European ministers. European ministers have spoken in favor of strengthening student participation in higher education decision-making at all levels: institutional, national and European. On the other hand, the model of collegiate governance in European universities has started giving way to more managerial (corporate) models. The decision-making powers are shifting from academics and students to institutional managers. Student representatives are increasingly involved in consultative function – in quality assurance and student services – and it is not clear whether they will be able to retain formal decision-making powers in the long run. These apparently conflicting agendas raise a question of how student representation will evolve in European universities and what the role and organizational structure of representative student associations will be.

The Western Balkans is a particularly interesting region to explore such questions. Students have played a vital role in the democratization in the region. In the 1990s, independent student associations emerged at national level across all the countries, taking advantage of the freedom of association inherent in the constitutions of the new democracies. They also assured formal provisions for student representation in university, faculty and departmental governing bodies. Yet, student self-organization and student representation have not been without problems. The legacies of the past, when student organizations were controlled by the government, are still strong. Norms, values and conventions of the past systems, including corruption that had permeated public institutions in the region, are resilient to change. In addition, student associations have to cope with the increasing passivity of student body which does not take much interest in student representation or student self-organization (the turnout in student elections typically runs very low), thus challenging the legitimacy of student representative bodies. With some delay due to the political and economic transitions and armed conflicts, the Western Balkan region has experienced expanding student demand for educational services. This rapid growth led to pluralization and also to fragmentation of student body and, consequently, of student associations. Hence, it is still unclear in what direction student representation will develop in the region.

Current Provisions for Student Participation in Higher Education Governance

At present, in all countries examined, national higher education laws entail provisions stipulating student involvement in the governance of universities (and other higher education institutions). These provisions also refer to the existence of student representative bodies in the form of: student councils (Slovenia, Croatia, Albania), student parliaments (Macedonia, Montenegro), student conferences (Serbia), or use a generic term 'student representative body' (Bosnia and Herzegovina). In formal terms, in all these countries students are represented in academic senates holding 10–20% of the seats. Only in Montenegro is the share of student members in academic senates not specified in national legislation, although the statute of the University of Montenegro stipulates a 15% of seats for students. Since the commencement of the Bologna Process, the percentage of students in university bodies has increased in several countries or the laws have been changed so that formal provisions on student representation have become more specific rather than ambiguous and thus are negotiable in each university. Empowered by the developments under the Bologna Process, students have taken the opportunity to assert their voice, especially in university governance.

Even more significant are the changes in student participation in quality assurance. Before the Bologna Process began, national legislation in the Western Balkans typically made a reference to student involvement in internal (institutional) quality assurance systems. This practice has been formalized and strengthened with the Bologna reforms following the European Standards and Guidelines. In all

the examined countries, internal institutional regulations and strategies on quality assurance have been developed, and these – as a rule – include provisions on student involvement. Student representatives act in these procedures as consultants providing expert advice.

The shift towards corporate governance model has taken place only in fragments. Among the frequent changes was the introduction or strengthening of the competences of university executive boards, which — apart from elected university officials, academics and students — include also external stakeholders. In most of the countries, the way student representation in executive boards is arranged is determined within institutions and where that practice exists, the students' share is small. Again, the corporatization of university structures is still in infancy in the region.

Since 2002 serious changes have been made in national legislation concerning student participation in national-level higher education governance through including student representatives as members in National Higher Education Councils. At present, four countries have formal provisions for student representatives in their National Higher Education Councils: Slovenia, Macedonia (not yet implemented), Serbia (as observers with voting rights only on issues concerning quality assurance) and Montenegro. In addition, in Macedonia students are represented in the Inter-University Conference, and in Slovenia — in the Council on Student Affairs (with 9 seats out of the total of 17), which is a consultative governmental body with a specific focus on student-related issues. Also, due to the influence of Bologna recommendations, student involvement in external quality assurance bodies and procedures has become much more consistent across the region. The legislative changes in this area were part of the wave of national reforms of quality assurance systems that swept through the region after the release of European Standards and Guidelines. Generally, these guidelines have been implemented in all the countries in a way that has assured student involvement in the governing structures of the external agency or other forms of external quality assurance structure. The only exception is the Quality Assurance Agency in Federation of Bosnia and Herzegovina. In Montenegro and Serbia, the inclusion of students in the National Higher Education Council has been motivated by government aspirations to implement the European Standards and Guidelines since the National Council performs the role of an external quality assurance body.

Main Challenges to Student Representation in the Region

One could say that student representation in the Western Balkans has flourished in the context of the Bologna reforms. Student representatives have managed to turn to Bologna recommendations to leverage more formal powers in governing bodies at institutional and national levels. In addition, new opportunities have emerged for student involvement with Standards and Guidelines for Quality Assurance in Europe paving way for student role in internal institutional and external national structures and processes.

However, some major challenges have emerged too. Cultural attitudes to power, authority and legitimacy that are held by the key actors within higher education governance translate into the informal relations that underlie policy processes and outcomes. In the Western Balkans, the relations between university leadership and student unions can be mostly described as paternalistic. Evidence from a survey of academics conducted in the eight countries in 2012 suggests that students do have formal powers in decision-making but lack effective influence on key policy outcomes. In interviews following the survey, elected university officials and academics sometimes casually referred to students as "children".

Another issue is the autonomy of student representative associations. The relations between elected university officials and student representatives or government officials and student representatives often involve certain forms of domination by authorities over students manifested through subtle and implicit actions. A salient issue here is especially that of financial autonomy (conditions imposed through funding), legal autonomy (legal status) and "symbolic" autonomy (relations to, in particular, political parties). In the Western Balkans, two models coexist: the first implies that student unions act as independent non-governmental organizations, and the second involves student councils which are legally part of the university structure. Each model implies a different set of arrangements in terms of organizational structures, legal status and funding, with unions having more autonomy and councils typically having less. The less autonomy, the easier it is for elected university officials to "domesticate" the student voice, and student representatives have often been blamed for being coopted by elected university officials.

On the national level, public authorities in the region (with the exception of Slovenia) tend to be cautious in granting the monopoly of student representation to one student association. They usually favor a pluralistic approach: addressing several student groups, prompting them to compete against each other for influence and keeping their options open in terms of who they cooperate with. In Croatia, due to perceived lack of good governance of the national student association, the government has changed the Higher Education Law scraping the legal status and funding of the national association; it prefers to meet directly with the representatives of university associations.

Political party interference in the work of student associations has also been strong in the region and has not been fully settled yet. At different stages of the most recent history, national (and institutional) student associations have been blamed of serving the interests of the political parties which different elected student representatives belong to instead of defending student interests. Several of the student associations prohibit such dual affiliation of their elected representatives in their statutes; in Albania, such a provision is even inserted in the Higher Education Law. Autonomy from party interference is of crucial importance for internal and external legitimacy of student representation.

"Global Classroom" Experiment at Higher School of Economics: Who Takes MOOCs offered by Russian Universities?

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Many experts believe that the MOOC phenomenon (massive open online courses), which emerged in 2012, can be considered a disruptive innovation in the sphere of education and a challenge to modern universities. One of the main advantages of MOOCs their accessibility: anyone who has a laptop and Internet-access can sign up for a course they find interesting for free and complete it within several weeks.

Until recently MOOC providers were mostly major Western universities. Since 2014 Coursera also offers Russian-language courses developed at Higher School of Economics, Saint Petersburg State University, and Moscow Institute of Physics and Technology. This papers reflects the results of a survey distributed among the students who took courses offered by Higher School of Economics at Coursera. The survey was conducted by HSE Center for Internal Monitoring, HSE Institute of Education and HSE Office for Curricula Support. Our main question was: who are the audience of HSE online-courses? does online education help push the borders of traditional university student audience? We will try to answer these questions in our paper.

Methodology

HSE offered 9 MOOCs in February–September 2014: 6 were taught in Russian (Financial Markets and Institutions; History of Economic Thought; Microeconomics Principles; Industrial Organization; Introduction to LaTeX; Macroeconomics), 3 in English (Core Concepts in Data Analysis; Public Economics; Understanding Russians).

All the students were asked to complete two online surveys: one before the beginning of the course, and a follow-up survey (after grading and certification). Each registered student received a letter in the name of the lecturer containing a link to the online-survey.

In total, 192 093 students registered for HSE courses; 11% of them (21 867 students) completed the first survey, and only 2% (3 465 students) completed the follow-up survey.

In the first survey we asked the participants about:

- their sociodemographic background;
- their educational background;
- why they had decided to sign up for the course (they were given 12 statements about the potential participation aims and could indicate to what degree this or that statement was applicable to them).

In the final survey we wanted to know:

- how the participants evaluated the usefulness of certain aspects of the course and their satisfaction with them;
- how they perceived the results of their participation in the course in terms of the specific knowledge they gained, their readiness to recommend the course to others, their willingness to join other HSE programs, etc.

MOOCs as a Choice of Young Professionals Striving for Knowledge

We have learnt that our audience's average age is 31 years, which is lower than the Coursera average of 37 years.

In general, HSE MOOC audience is predominantly male (58%) but gender distribution varies across different courses. For example, 71% of the students who had signed up for "Core Concepts in Data Analysis" were male. The average share of males among the participants of economics courses was 63%. The only course dominated by females (60% of the audience) was "Understanding Russians", which can be referred to as a humanities course.

Half of the participants work full-time, one-third are part-time workers, freelancer or entrepreneurs, and only 20% are university students. Nearly 49% of the respondents had no prior educational experience and 69% had no relevant work experiences in the disciplines they had chosen to study.

The main motivation for participation turned out to be intellectual curiosity and interest in a new subject, which was applicable (fully or to a large degree) for over 90% of the respondents. Over half of them agreed with the statement that the chosen course would help them in their professional life (55%) and/or in their education (43%). A large share (46%) wanted to learn more about the subject.

In other words, HSE MOOC audience differs from the traditional student audience both in terms of sociodemographic features and motivation.

Russian- and English-language Courses: Different Audiences

Our analysis has also revealed a number of differences between the audiences of Russian- and English-language courses.

The participants of English-language courses are generally older (their average age was 35 against 30 among the Russian-language audience), which is statistically significant.

Russian-language MOOC students mostly live in Russia (69%), the Ukraine (10%) and Belarus (3%). English-language MOOC students live in the U.S. (25%), India (9%), and Russia (7%), as well as other countries including the E.U., Canada, Brasil. So, the courses taught in Russian are mostly popular in Russia and other C.I.S. countries, while those taught in English are truly "exportable".

On average, English-language audience turned out to be more educated: 57% of the participants said they had master's degree or higher. Only 36% of the Russian-language students reported having such a degree; most of them had bachelor's diploma or specialist degree (a traditional 5-year higher education degree in Russia).

English-language audience turned out to be better prepared. Only 12% of them said they had zero prior knowledge in the chosen subject (against 29% among the Russian-language participants). Moreover, 39% said they had already attended some classes on the subject (against 16% among the Russian-language participants). Finally, they had more experience with online education (80% said they had participated in MOOCs before).

Interestingly enough, English-language students (who, apparently, could judge from their prior experience) were more realistic regarding their participation: 29% of them (versus 18% of the Russian-language audience) said they would not participate in the course on a regular basis.

Course Evaluation: More Workload — Less Satisfaction

On the whole, the respondents evaluated course complexity, weekly workload and new material delivery rate as appropriate. When asked to evaluate their satisfaction with different aspects of the course, it turned out that the participants were mostly satisfied with HSE lecturers' professional competence (80% of the respondents chose 5 out of 5 when evaluating their level of satisfaction of the professors). At the same time, many of them were not happy with the depth of the contents offered, test tasks distributed, and the way discussion boards were organized.

The course "Financial Markets and Institutions" scored highest across all questions (reaching the average score of 4.64 out of 5), yet it also scored lowest in terms of complexity (i.e. it turned out to be the easiest one). We have noticed significant negative correlation between perceived "complexity" and "course satisfaction". It is now difficult to interpret these results; moreover, they require further verification. Still, we assume that maybe MOOCs are perceived not only as a means of education but also as entertainment. If so, people are not ready to deal with the material that is just too difficult.

Is MOOC Participation an Individual Process?

This is an assumption we've come to as a results of our analysis.

Video lectures turned out to be the most useful element of the course (94% of the respondents chose 4 or 5 out of 5 when evaluating their usefulness). Discussion boards and specialized groups in social networks appeared to be the least used and least useful MOOC elements. Maybe this is due to the fact that most students still regard MOOCs as a set of video lectures that are always available at any convenient time rather than a real educational course. Such an attitude doesn't imply any peer-to-peer communication.

Another reason to support the idea that MOOC participation is an individual process can be found when analyzing the students' responses as to why they have decided to sign up. "Following someone's example" and "social behavior" (doing some things just for the sake of doing it together with friends) were the least common answers (only 7% of the respondents said this was fully applicable or applicable to some extent).

MOOCs as a Way to Promote Russian Universities to a Wider Audience

We are absolutely positive that HSE has succeeded in creating its "global classroom" at Coursera. The experiment has shown that our audience was coming from many different countries and that Russia-based students weren't always the most numerous.

Traditional students represent only a quarter of our audience. Most of participants were young professionals aged 30–35, holding a degree and a full-time job, who wanted to enrich their knowledge and improve their professional skills with the help of online education.

In other words, Russian universities can succeed in reaching a wider target audience through MOOCs, thus attracting more attention both to their traditional programs and distance learning programs. There's also data to support this: for example, 83% of the respondents said they would like to study at HSE. 23% said they would like to participate in an advanced training program, 16% were thinking of completing an MBA, 13% mentioned graduate education and professional re-training programs, 9% said they wanted to do a PhD, and 6% were talking about bachelor education.

The next step to take for Russian universities if they want to go on with developing free distance education is to build comprehensive certifiable MOOC programs (specializations). However, the specific nature of Russian- and English-speaking audiences should be taken into consideration when developing such programs.

The Mystery of Russian Students: Poor Learning Experience, High Satisfaction

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Russia has seen a tremendous growth in student enrolments since the 1990s. More than 70% of people aged 17–22 enter higher education, which has basically become a social imperative for the absolute majority of young people. By 2010 Russia had become the second largest higher education system in the world in terms of the number of students per 100,000 population.

The skyrocketing increase in student numbers stimulated the development of private higher education sector (which had never existed in the USSR), but for the most part the major destinations for this diverse student body were post-Soviet higher education institutions. Each of them (with few exceptions) became much more internally differentiated than before: students with huge variation in readiness level came to study under the same roof, in the same class. To teach 20% of the best high school graduates is not the same as to teach 70%, so adjustments had to be made. How did these institutions respond to the new realities of universal higher education in terms of teaching and learning? How do Russian universities affect students and what kind of experience do students get once enrolled?

In this short essay I argue that student learning experience is very limited in Russia, even at top-tier universities. Students are primarily exposed to traditional (but scalable) teaching methods and rarely challenged intellectually. Not to be overly pessimistic, I conclude that students demonstrate a high level of satisfaction with their learning experience and do not worry about its quality.

I will rely on the results of two national student surveys administered by the Higher School of Economics (Moscow). First is the 2013 survey of more than 4000 undergraduate students majoring in economics and management at 11 leading Russian universities (hereinafter, EM Survey). Second is the 2013 survey of a nationally representative sample of almost 3000 undergraduate students within the annual Monitoring of Education Markets and Organizations Project (MEMO Survey).

Passive Learning Encouraged

Data from both surveys presents convincing evidence that undergraduate student experience is primarily organized around passive learning. According to MEMO Survey an average student spends around 25 hours per week attending classes and 11 hours doing homework. Traditionally, curriculum in many Russian universities emphasizes structured in-class learning: Soviet students in the late 1980s spent nearly the same amount of time for these activities .

What do students actually do during these long hours of learning every week? Well, at least for those majoring in economics and management we know that they spend most of the time writing down what the lecturer is dictating and/or copying down what's written on the blackboard/projection screen and memorizing course material (around 70% of students do that "Often" and "Very often"). At the same time only 20% to 30% of students said they frequently applied theoretical knowledge to solve problems or critically assessed ideas, theories or methods. This balance between passive and active forms of learning does not significantly change during the course of study, though there might be some variation between disciplines.

When students are so busy with attending classes, there is not too much time left for extra-curricular activities: internships, field experience, student teaching, etc. Though all higher education institutions have internships as part of the curriculum, students see them as an inevitable formality rather than a source of knowledge and skills. Instead, students prefer to start having a paid job as soon as possible: according to MEMO Survey, they work on average 8 hours per week (2–3 hours for freshmen and up to 17 hours for seniors).

Being stuck between passive learning and paid job at entry-level positions, students do not engage much in creative and intellectually challenging activities.

Limited Student-Faculty Interaction

Another area that suffered from massification is student-faculty interaction. According to EM Survey students do not communicate frequently with faculty members. Only 18% of students discussed assignments, ideas or concepts with a faculty member outside the classroom and only 6% talked about their career plans. Individual feedback on assignments (either written or verbal) has become a luxury: only 17% of students in economics and management reported that they regularly received comments on their work from faculty members.

The reasons behind such limited interaction between students and faculty are not quite clear but they are probably twofold: students do not have high demand for such communication (and those who really want it usually do get it) and faculty members are overwhelmed with high teaching load and large classes. In any case such infrequent communication between students and faculty does not improve learning outcomes.

Tolerance for Academic Cheating

With few exceptions, Russian universities do not address the issues of academic cheating (plagiarism, falsification of term papers or even various forms of gratification in return for the good grade) at institutional level. So, cheating is blossoming both among students and faculty and reinforcing corruption practices outside of the academia.

According to MEMO Survey, 14% of the respondents reported that they had cheated during exams and 4% of them had bought at least one midterm-, term-paper or thesis. EM Survey confirms these results and provides even larger estimates for the number of students who falsify their midterm- and term papers. Moreover, even those who do not cheat are tolerant to the cheating of others. When asked what a professor should do if he or she finds out that a student is cheating on the exam, nearly half of the students majoring in economics and management chose the option "Warn a student to stop doing that but nothing more". The proponents of more serious punishments, like, for example, giving such a student an unsatisfactory grade or expelling him or her from university, constitute a minority. These expectations correspond to the actual behavior of faculty members: according to MEMO survey of academics, the majority of them usually just give cheaters a warning or lower the exam grade.

There are many reasons for such tolerance for academic cheating and some of them could be easily found beyond higher education system. Another possible explanation is that cheating has become a response to boring and meaningless education: "students cheat when they are cheated".

High Satisfaction

Paradoxically, in general students feel positive about their higher education experience. More than 80% of those majoring in economics and management are satisfied with the learning environment at their institutions. Two-thirds of them are satisfied with their educational choice. There could be many interpretations of what students actually mean when they report high satisfaction: (1) they are satisfied that they are not challenged or even bothered by the university on their way towards a higher education degree, or (2) they are truly satisfied with the quality of their learning experience, or (3) they just do not expect higher education institutions to be intellectually stimulating and transformational environments, and the reality meets their expectations.

In any case, with such an attitude it is difficult to expect that students would become change agents in Russian higher education. So far, they have hardly put any pressure on universities to revise their curricula and teaching methods.

Peer Effects in Russian University System: Case of Higher School of Economics

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Introduction

Peer effects in education mean the impact of classmates or schoolmates on the educational outcomes of an individual student. While substantial share of research in education is focused on school level, specific features of higher education system in Russia allow researchers to study the effects of study peers in university environment. Indeed, estimating peer effects correctly is not an easy task; it is hard to do in a system with high degree of flexibility and student choice. One of the main issues in peer effects empirical estimation is correct identification of a social group that influences an individual. In higher education settings, a natural assumption is to define peers as those who share the same classroom or room in dormitory. In Russia, like in some European, Asian, and Latin American countries, a university student is always admitted to a bachelor program in a specific field of study, e.g. biology, economics or physics. For the first three years students mostly take obligatory courses. Two particular features of the Russian university system (a) most courses during the first three years of study are compulsory, and b) students are administratively assigned to particular study groups) exclude the problem of selection endogeneity that emerges when students choose classmates or courses. We use this opportunity to test the presence of peer effects in a student group, specifically the influence of other students' abilities on student achievement.

We will present some results of peer effect research done recently at the Center for Institutional Studies at Higher School of Economics (HSE) using data on HSE students. To start with, we will introduce some features of Russian higher education, which will help readers understand the context. We demonstrate how exogenously formed student group affect individual achievements. Two other sections consider how peers connected by personal ties affect individual GPA and choice of specialization.

Role of Peers in Exogenously Formed University Groups

The empirical base of the research is data on more than 250 students in the economics program who entered HSE in 2009. In the beginning of the academic year, the students were divided into 11 study groups. Typically, a group

has up to 30 members. Lectures are usually delivered to several groups simultaneously, while seminars and tutorials (classes) are delivered to each group individually. At HSE, weekly classroom workload is about 20 hours, so students spend a significant amount of study time during their classes in groups.

For each individual, we consider their study group fellows as their peer group. Individual abilities were measured according to their USE scores in Russian language and mathematics (Unified State Examinations obligatory for all high school graduates) and by an indicator variable of whether the student had enrolled as Academic Olympics winner.

We have found out that grades in particular disciplines and first year GPA for individual students correlate with their classmates' abilities. More detailed analysis shows that peer effect is nonlinear: only high-able students benefit from a greater share of high-able students in the group. At the same time, increase in the percentage of less able students does not influence their classmates' achievements.

There are several possible explanations for this effect. One is that students of similar ability may form endogenous friendship networks inside exogenous student groups. So, more able students form social ties with other able classmates who may act as a role model or help in the study process. Therefore, positive spillovers from high-able peers mostly benefit their friends, who are also high-achievers. Another explanation refers to the competition effect: while high-ability students compete with each other for higher grades and therefore induce extra effort, students from low-ability group may feel just too far behind (in terms of current achievements) to consider their high-able classmates as a positive inspiring example. Finally, less able students may be less affected by their classmates due to a lower attendance rate within this group.

Policy implications of peer effects concern group design aimed at optimizing students' achievements. There are two main approaches forming groups: putting students of similar abilities together or composing mixed groups. Our findings suggest that ability tracking approach (the former one) certainly favors academically strong students and disadvantages low-achieving ones. However, any change in group composition policy may affect intergroup relations and interaction effects in a way that is difficult to foresee in a study based on random assignment.

Which Peers Matter: Social Ties and Peer Effects

Study peers are important but what peers are most important? To answer this question we used data on the academic performance and social connections of third-year students of the economics program. In order to correctly determine each student's peer group, we used a questionnaire survey in the middle of the third year of study. Students were asked to indicate no more than five students with whom they usually spend their free time ("friends") and no more than five students that they approach for educational help ("study partners or helpers").

We have found significant positive peer effects via the academic achievements of friends and study partners. Different combinations of friendship and study partner relationships have different effects on student performance. Students' grades correlate with the abilities of friends/study partners and study partners/non-friends, whereas no such effect is found for friends/non-study partners. We interpret this as evidence that the knowledge-sharing channel of peer influence has a greater impact on students than the role model channel. Certainly, friends are important. However, those friends who are willing and able to provide study assistance matter more, at least in terms of academic performance.

Endogenous peer effects are relevant from the point of view of educational policy. In order to exploit positive peer effects, universities could offer additional classes to help some students or perhaps even provide financial aid to bright students to divert them from part-time work. Such measures would have a positive impact on these students and have spillover effects on their peers. Obviously, peer effects and policy capability to utilize peer spillover effects depend heavily on the specific learning environment, which differs from institution to institution. Peers must not only be able to help others but also willing to help others. A cooperative learning environment and teaching practices that encourage intensive social interaction, such as group project assignments, facilitate knowledge exchange much more than an individualistic and competitive atmosphere would.

Student Employment: The Interdependence of Work and Learning Experience

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Introduction

Combining job and studies is quite often the case both in Russia and in Europe. But today researchers all over the world seek to explain the increase in the number of working students and in hours they spend working. In Russia the situation is exacerbated by a decreasing value of formal education for employers, which can make working experience a basic prerequisite to participate in labor market entry competition.

The phenomena of combining work and study calls for investigation. What is crucial for us in this paper is relationship between working experience and education in terms of its content, meaning the extent to which work and education are related or interdependent.

It appears that commitment to chosen educational specialization is strong among a specific type of students but there's also a type of students who pass through the educational system without taking much interest in it, approaching it rather instrumentally, and their share is high. Therefore we can say that some disciplines are getting much more popular because they become buffers for those who don't consider education useful but still find themselves bound to get a degree.

Bearing these considerations in mind, we are going to analyze the reasoning behind entering a chosen university and specialization by students who combine work and study in different ways. Then we will look at how different types of combining work and studies influence academic achievement, and in the end look into the interviews with the respondents that can shed light upon the effects of such experience after graduation.

Five work-study combination types among senior students are have been identified : full-time work outside their field of specialization (11%); part-time work outside their field of specialization (30%); full-time work within their field of specialization (5%); part-time work within their field of specialization (14%); only studying (40%).

Specialization Choice and Work

The most popular reason to choose particular university and specialization for all groups is diploma prestige (57%). Non-working students chose this variant significantly more often than others (70%), which may reflect their strong trust in having a diploma in the sense that they don't have to worry about work before graduation. Those who work full-time outside their field of specialization chose the easiness of university entering procedures and the possession of necessary social connections more often than non-working students. It shows that there's a specific type of students, who don't trust diplomas and certificates and rather believe in networks; for them, education is not about content and is not related to their future professional experience. The motivation to study together with friends was more important for students who later work outside their field of specialization than for those who work within their field of specialization or don't work at all, which confirms their lack of interest in the chosen discipline itself. A chance to establish new contacts as a reason to choose university and specialization is more significant for students who work part-time within their field of specialization than for other groups. Choosing university and specialization according to one's interests is more popular among students who work within their field of specialization than among those who work outside their field of specialization or don't work at all, which illustrates the crucial importance of having interest in one's educational track in order for a student to follow it down through to the labor market.

Academic Achievement and Work

Academic achievement of students who do nothing but study is close to that of those who work according to their academic specialization. Between the groups of non-working students and students working part-time within their field of specialization there are no significant differences in terms of their academic results. Therefore we can assume that relevance of the job to one's academic specialization is a key factor that determines the influence of student employment on academic achievement.

Only two types of work-study combination show significant negative influence on academic achievement: working full- and part-time outside one's field of specialization.

So, when working according to one's specialization, it matters how much one works: full time employment has detrimental influence on grades. But when working in a different field, it doesn't matter: grades will be worse than in a situation if one hadn't worked at all (or worked part-time within their field of specialization).

Higher Education at Work

When we met with some of the participants of this study for in-depth interviews about their educational and occupational trajectories, the first thing we noticed, as it often happens, was that the realities of combining work and education are much more complex than the survey actually shows. Quite often working while studying is a necessity,

especially for students that come from a different city or town, a smaller town, and have to support themselves rather than rely on their parents for help. Not every educational program can allow one to find a relevant part-time job: this can be tricky for those studying technical and natural sciences, agriculture, and law (75% of the employed respondents specializing in these fields reported their job was unrelated to their studies). It is difficult to find a job for students with such a background, and the fact that employment affects academic achievement negatively only shows that some educational programs can be harder to complete because of external factors. Friendship networks are also very important because the type of study and work one's friends and friend's of friends do may influence one's career choices and lead to part-time jobs that one would have never thought of otherwise.

What we've found most important, however, is that 1-2 years after graduation the importance of the specialization as indicated in the diploma fades away; that is true in many fields except maybe medical and military spheres.

4-5 years after graduation the respondents report that the most valuable lesson university has taught them is how to learn. This is probably due to the fact that many students change their specialization right after graduation or — even more often — within the following 2-3 years. Here's what a professional with a degree in physics and working in the growing field of programming told us:

"I almost don't use <the knowledge I gained in university>. But on the other hand, I have made great use of the skill to learn new things. When I was at university, I was studying and studying and studying, I was studying for so long that I learnt to learn new things. This is very, very useful".).

Civic Effects of Higher Education in Russia: the Impact of Educational Programs

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Apart from the production and transmission of knowledge, higher education institutions play a crucial role in value transmission and socialization of young generations into the civic culture. There are several important aspects to higher education. One of them is the impact of the content of education – the "pure teaching effect". Specific courses included in educational programs offer different worldview and draw students' attention to different aspects of life.

Not only a long course but also some specific features of the learning process, and some less evident events like a short conversation with a professor, an advice from the faculty dean, a lecturer's comment on writing assignment, etc., might have a great impact on one's life, worldview, and behavior.

We can suppose that while programs in Economics and Management cultivate values and patterns of professional development and social mobility, programs in Theology, Pedagogy, and Humanities provide students with humanistic and community values and patterns of civic culture. To objectify the social effects of higher education in Russia and explain the differences in civic engagement among students of different disciplines (specializations), we can take a look at the results of a research project conducted in 2013 .

The data was collected in 10 Russian state HEIs located in 9 Russian regions (Belgorod, Vladivostok, Kursk, Lipetsk, Moscow, Omsk, Pyatigorsk, Ryazan, Tula). The sample includes full-time students from four disciplines: Economics and Management, Theology, Pedagogy and Education, Humanities.

To compare the students studying at different educational programs, a Civic Engagement Index was constructed as a mean average of six variables. It includes two groups of indicators: participation in voluntary activities and civic engagement values. The first group of indicators includes 4 items coded as "1" if a student was engaged in civic / voluntary activities, and "0" if not. The second group of indicators includes 2 value items: "To benefit people" as the most important aspect when choosing a job and "A useful job for society" among the important aspects of future job ("1" if these answers were chosen, and "0" if not). The higher the index value, the higher the level of civic engagement.

Educational Programs Form Different Civic Values and Behavior

Various educational programs form different civic values and motivation for participating in corresponding practices. The average values of the Civic Engagement Index are significantly different among students of different educational programs. The highest average value of the Civic Engagement Index was among Theology students (0.54), a little lower among the Humanities students (0.47) and students of Pedagogical departments (0.44). The lowest level of the Civic Engagement Index marked students specializing in Economics and Management (0.37). This was a cross-sectional, not longitudinal research project. This means that we cannot directly separate educational effects from selection effects. For some reasons, students with particular civic engagement and values might choose specific educational programs, or the program applicant selection criteria might differ. Additional research is needed to find out the exact proportions of the direct and reverse influence. What we can do is formulate several alternative explanations (apart from the educational influence) for the difference in index values and test them.

Religiosity, Social Capital, and Student Involvement Play an Important Role

There is a long tradition of academic discussion on the question of whether religion facilitates altruism and pro-social behaviour, volunteering, benevolence, etc. Religiosity impact might partly explain the highest values of the Civic Engagement Index among Theology students in our study. Educational programs might play a role of clusters for more religious people but not directly generate high or low levels of civic engagement. A linear regression model (N = 1905 respondents, R sq. = 0.24) with the Civic Engagement Index as a dependent variable has shown that as soon as we include the frequency of church attendance in the regression, the effect of Theology department becomes about equal with other educational programs. As compared to Economics and Management, all other educational programs in our study have a significant positive effect on the Civic Engagement Index.

The results show that students' social capital is among the most important variables affecting the Civic Engagement Index positively. The existence of social ties between people, especially heterogeneous ties (corresponding to the notion of bridging social capital) increases the probability that they can be utilized in civic engagement initiatives. The more people are being helped by others, the more they are ready to reciprocate, so they become more involved into helping others. Another social capital indicator, generalized trust, also has a significant positive impact. The higher the level of trust in a society, the lower the transaction costs for taking joint actions to produce public goods, and the higher the probability of cooperation between people.

Apart from educational program characteristics as objective criteria, subjective factors also play a crucial role. An educational program would have a significant impact only if students are truly involved in the learning process. Our results demonstrate that the more students are involved in the learning process, the higher their Civic Engagement characteristics are. More responsible students put more effort into education: they don't just formally attend lectures but also participate in various other ways of learning. That same responsibility is manifested in their readiness to participate in civic engagement initiatives.

The "Pure Teaching Effect"

An important result of our study is that even when controlled for several other characteristics that could provide an alternative explanation for the differences in Civic Engagement Index, educational programs remain to be a significant factor. Students in Theology, Pedagogy, and Humanities have higher Civic Engagement Index values than students in Economics and Management. Even though university departments (especially Theology) perform a role of a cluster, recruiting and selecting students with features essential for civic engagement, much of the influence can still be attributed to educational programs themselves since they promote (or prevent) specific civic culture values and practices in their students.

The post-Soviet transition gave higher education institutions a chance to open and expand new educational programs. While Pedagogy and Humanities have a long history in Russian higher education, Theology and Economics are relatively new specializations. Economics is among the programs which have experienced a surge of interest in the last 20 years and is available in most of Russian HEIs. Theology programs are much rarer to find at university level. Theology and Economics are similar in the way that they both represent a specific worldview, or "cosmology". But their components have quite different influence on civic engagement, including the "pure teaching effect" and selecting students with different amount of social capital and religiosity levels. Structured education characteristics should be recognized as a source of reflection on how civic society could be socially constructed in contemporary Russia.

The Obligatory 38 Hours Of Independent Work[1] : Real Independence Or Control?

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Our survey of students' attitudes towards learning conducted at our university several years ago brought up some unexpected results: a vast majority of the respondents (79%) felt negative towards the idea of increasing the amount of self-regulated learning work against the number of classroom hours.

Existing literature confirms this trend. For example, a substantial part of the students of the Department of Pedagogics and Psychology of Primary Education at Mari State University gave a negative answer to the question "Do you think it's good to increase the number of independent work hours at the university?" 45.16% of the freshmen, 25% of the sophomores, 48.57% of all third-year students, 72.22% of all fourth-year students, and 46.67% of all fifth-year students said "No"[2].

In a study conducted at Orenburg State University, students' responses to the question "What is your attitude towards the amount of self-regulated learning work at high school?" were the following:
"I would like to receive more knowledge directly from teachers" – 44.9%.
"The amount of self-regulated learning work is too big" – 16.2%.
"The amount of self-regulated learning work is enough" – 33.1%.
"I would like to learn most disciplines by myself" – 4.1%.[3]

Moreover, 43.7% of the teachers of South Ural Professional Institute in Chelyabinsk that participated in the survey on the role of students' independent learning strategies, answered "Yes" and "Rather yes" to the question "Do you often have to deal with student reluctance to carry out independent work?"[4]

We believe that these figures reveal social and management paradoxes that come as a result of the conditions in which higher education functions in modern Russia.

Supervised Independence: A Trap for Students?

Imagine yourself being a student who receives such instructions:

"Accurate planning of your working time and of your leisure time is a prerequisite for successful autonomous work. A student should spend 9-10 hours of his/her time studying every day, i.e., since classroom work requires six hours per day, autonomous activities should take 3-4 hours per day. Each student should prepare weekly and semester-long work plan, as well as daily work plans. In the evening one should arrange the tasks for the next day. At the end of each day, it is advisable to summarize the tasks accomplished during the day: e.g. check carefully whether one has been following the plan, whether there've been any deviations, and if so, why. You need to develop self-control, which is a prerequisite for successful education. If something is left undone, you need to find the time to complete this part of the work without reducing the amount of tasks per week".[5]

Even if you do learn to plan your time reading these instructions, you will hardly cultivate any self-development abilities or innovation skills. The very style of instructions or manuals, as they are known, is aimed at informing the addressee about the order, methods and rules of implementing an action and encouraging its execution. Obviously there is a conflict between the whole genre of instructions and independent educational process, and as a result (as some teachers put it in there reports), "the existing methodological support for independent work is insufficient in terms of helping students find their own educational path"[6].

Quite understandably, students are not satisfied with organizational arrangements that do not match their individual interests, abilities and resources. This was confirmed in the study conducted at Omsk State Pedagogical University, which has revealed the difficulties that students encounter when working independently. 77% of the 230 students that participated in the survey said that the way autonomous work was arranged at high school level did not match neither their interests nor modern IT capabilities; 90% of the respondents expressed dissatisfaction with the fact that despite teaching students to be independent, teachers do not really stimulate any creativity; 84% complained that they had no opportunity to consult with teachers when they had difficulties in the course of their independent work.[7]

In our opinion, these survey results reveal a certain social paradox: by trying to impose on students the necessity of independent work, the society is actually decreasing their ability for self-regulation.

Students' Independent Work as Part of Teachers' "Teaching Load": A Trap for Teachers?

Involving teachers in the elaboration of methodological guidelines for students' self-regulated learning strategies leads to a paradoxical phenomenon in teaching work: the efforts wasted on creating guidelines and recommendations will inevitably consume the time that could have been spent on course work and individual work with students. The fixed amount of hours prescribed for the so-called independent work often exceeds the number of classroom hours, therefore teachers inevitably raise questions about

course assessment methods and existing organizational arrangements but often to no avail.

Some informal online discussion boards, where teachers talk about issues related to organizing independent work, are indicative of the existing paradox. Here is a typical exchange of opinions:

– *Students' independent work according to the official Educational Standards: how do we evaluate it? how do we organize it?*

– *It's the same thing that used to be called "homework". Teachers can evaluate it the way they prefer. Speaking of organizational arrangements — don't go seeking for problems, assessing this type of work is not paid, so no one can force you to organize any special arrangements. Generally, it's better if you write guidelines for students including a kind of list of the types of work they can do and suggestions on how to organize their work based on some specific requirements. If you get your guidelines approved at a teacher meeting on methodology, no one will be able to undermine your work.*

– *Thank you. It's clear how to deal with guidelines, but students' independent work should be approved within the Regulations, and this implies that it should be verified...*

– *Dear colleagues, this kind of work is not mandatory for students. Therefore it's up to them whether to perform independent work or not… I suggest that you act wisely and kill two birds with one stone: to make an attractive offer for a student with controversial marks in case he\she does the task.*

– *…That's how we teachers have to dodge and manoeuvre. And we are constantly given new tasks, which only lead to more paperwork!*[8]

This need to dodge all the time leads to new paradoxes: what is now called "training in independent work" is actually teaching students vital analytical skills (reading and working with academic texts, writing reviews, annotations, text summaries, etc.). However, teachers cannot teach independence, — they can, at best, demonstrate their own analysis and text processing skills, as well as non-standard approaches to problem-solving, and thereby stimulate students' personal development, creativity and innovation. The strange requirement to include students' independent work in teachers' work load leads to tragicomic effects. This is, for example, how teachers responded to the question "In your opinion, what independent learning skills are best developed among students?" in one of surveys: "listening to lectures" – 45.6%; "taking notes during lectures" – 53.2%; "participating in seminars" –17.1%; "work with source materials" – 19%; "working with books" – 34.2%; "working with academic journals" – 20.9[9].

In other words, the respondents defined listening to lectures and taking notes as types of students' independent learning skills, which is quite strange.

In conclusion, let us once again refer to the survey mentioned at the beginning of this article. We believe that 79% of the respondents that preferred classroom work to independent work and teachers that use the terms "homework" and "independent work" as interchangeable synonyms nowadays actually have common sense. The reformists' enthusiasm crashes into harsh reality because the main issue remains unresolved: we still don't know whether it is possible to teach someone how to "work independently".

Notes

[1] We have found it rather difficult to find the right English equivalent for the original Russian term due to the fact that its interpretation has expanded unreasonably in Russia. However, we are using the term "independent work" as a synonym for "autonomous work", "self-regulated work", "self-directed work".

[2] Andrianova D.E. Students' autonomous work during the educational process at high school level as seen by students // http://www.scienceforum.ru/2013/pdf/6214.pdf

[3] Petukhova T.P. About the problem of students' autonomous work organization within the framework of the educational programs based on the Federal State Learning Standards of Higher Professional Education. The experience of Orenburg State University // kpfu.ru/docs/F2008488437/Petukhova.ppt

[4] Analysis of the results of a survey of teachers at the educational complex 'The role of students' autonomous work in practice-oriented learning" // chuc.ru/netcat_files/File/an(4).doc

[5] Sillaste G.G., Pismennaya E.E., Belgarokova N.M. Students' autonomous work. Guidelines for Sociology students. Moscow: Federal State Budget Institution of Higher Professional Education "Financial University under the Government of the Russian Federation", 2013. P.8.

[6] Pavlenko E. A. Stimulating students' independent work using online resources // http://www.emissia.org/offline/2012/1844.htm

[7] Pavlenko E.A. Op. cit.// http://www.emissia.org/offline/2012/1844.htm

[8] Website «Community. Profobrazovanie» //http://www.profobrazovanie.org/t1957-topic

[9] See: Analysis of the results… // chuc.ru/netcat_files/File/an(4).doc

Dispositional factors of attitudes towards statistics in social science students: perseverance and academic motivation

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Often, in everyday understanding, social sciences are identified with the humanities and therefore are considered as not requiring specific mathematical training. The directions of higher education are not so clearly divided by mathematical or non-mathematical subjects: there is a whole group of sciences in which educational and professional development require a combination of mathematics and theoretical foundations of these areas. To a great extent this applies to social sciences, such as psychology, sociology, political science, and others. Many entrants to the faculties of social sciences are not aware of the need to gain mathematical knowledge during their forthcoming studies. Even if the results of mathematical examinations are considered among other entrance requirements, students starting those degree programs have negative rather than positive attitudes towards maths which lead to lead to a decrease in their learning effectiveness.

The problem was recognized in the early 1980s, and, to date, there is a large body of research on the factors that cause anxiety towards statistics. The main aim of this study was to determine how various aspects of the social sciences students' attitudes towards statistics are related to their perseverance and motivation. These characteristics are considered among so-called dispositional factors of attitude towards statistics.

An empirical study of the relationship between attitudes toward statistics, academic motivation and effort

Measures

To measure the attitude towards statistics we used the Russian version of SATS-34 scale by T. Khavenson and E. Orel. This is a composite scale that consists of six subscales that measure different aspects of the possible attitude of students to courses related to statistics. Below we list these subscales: "Statistics in professional life", "Statistics in everyday life", "Expectations", "Interest", "Effort", "Difficulty".

To measure perseverance we used the GRIT-S scale by Angela Duckworth (adapted into the Russian language by Y. Tyumeneva, Y, Kuzmina, and E, Kardanova) Academic motivation was measured by the academic motivation questionnaire by T. Goredeeva.

The sample consisted of 83 sophomore students of the Sociology Department of the Higher School of Economics (16 males and 65 females). The survey was conducted round the middle of the first semester of the course "Probability theory and mathematical statistics" that lasts for 3 semesters.

Results

Patterns of students' attitudes towards statistics

Presumably, students do not just have different attitudes to statistics and related courses but there are certain types of students with different ratios of scores on the SATS-34 scales. In order to describe these types, we conducted cluster analysis and identified some of the most common types of students.

Three clusters of approximately equal size were identified. To test the significance of differences between the mean scores we used ANOVA; the differences were proved to be significant for all six factors.

The first cluster includes students with high scores on all scales, reflecting some aspect of the attitude towards statistics. This group of students is characterized by their appreciation of the need for statistics in their future professional life. They are not inclined to consider this course as challenging and do not hold negative attitudes towards statistics-related courses in general. They have a positive attitude with high interest in the subject. It is clear that these students are ready to make an effort to study statistical courses to get the best result. We labeled this cluster "Interested".

The second cluster is to some extent the opposite of the first one. Students in this cluster have the lowest averages on all scales, this group of students are anxious towards statistics, has reduced interest, and they are not willing to try very hard to study statistics, although they do believe that this knowledge will be useful to them in their future work. We named this cluster "Uninterested".

The students from the third cluster are very similar to the students from the first. But unlike them, these students perceive the course in statistics as complex. In general, these students can be described as diligent and ready to learn statistics by virtue of professional necessity but not having personal interest in the subject. We called this cluster "Nominally interested".

Attitude towards statistics, academic motivation, perseverance and achievements in different types of students

Attitudes towards statistics allow for dividing students into groups of distinct specificity, in terms of both personality factors (motivation and perseverance) and academic achievements. Each cluster has a specific structure of attitudes to the course, individual characteristics of students, and, as a result, the groups differ in terms of final grades. It is particularly worth mentioning that, in general, all students are aware of the importance of this course and its significance for further education and professional life. However, not all students accept it and many are motivated only by external and often negative stimuli, such as non-admission to the final exam or threat of expulsion.

The identified clusters can be considered in terms of the risks to students. More attention should be given to uninterested students. They are the ones who get low final grades and transfer their negative attitude towards statistics into their professional life. Taking into account their answers to the questions about the selection of statistics courses, one can assume that they will no longer attempt to study statistics in other courses and to deepen their knowledge in this area, and in professional life they will most probably avoid tasks associated with the data analysis. Given the trends in modern social sciences and research methodology, narrowing the range of professional tasks may adversely affect the career prospects of such students.

Work on improving students' motivation and commitment must be carried out for each cluster individually. Teachers or tutors should be able to identify students at risk and work with them individually. For these purposes tailored tasks and more detailed study in the classroom might be used, as well as discussions of real-life problems involving statistics or career related talks in order to increase the awareness of the importance and significance of statistics for future profession.

About HERB

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