



"All the world is a laboratory to the inquiring mind."

— Martin H. Fischer

Learning never exhausts the mind - Leonardo da Vinci's famous quote is probably now more timely than it was nearly five centuries ago. As international laboratories have become the university's frontier of knowledge and learning, we are happy to focus our June issue on this topic. What once started as an experiment now proves to be very successful in terms of academic outcomes: publications in peer-reviewed journals, number of scholars and students involved in the cutting edge research, and number of external grants obtained.

Thomas Remington, Leading Research Fellow at the International Center for the Study of Institutions and Development, Panos Pardalos, Scientific Advisor of the Laboratory of Algorithms and Technologies for Networks Analysis (LATNA), and Valery Kalyagin, Head of the LATNA, told The HSE Look about the research projects at their laboratories, collaboration with colleagues and involving students into research. "From philosophy to public administration" - Jesse Campbell, Assistant Professor at the School of Public Administration of the HSE's Faculty of Social Sciences, shares his research interests and plans.

Although the academic life doesn't stop at HSE in summer, the end of the academic year 2014-2015 approaches and we would like to wish you a happy holiday season!

**Yulia Grinkevich**  
Director of Internationalization

## International Laboratories and Centers at HSE: Doing Global Research and Involving Students

International laboratories were established at HSE five years ago: initially in 2010 there were three laboratories, one funded by HSE and two by the governmental grants. The successful results prompted the opening of 10 new laboratories and centers in 2011. In 2015 HSE has 22 laboratories and they cover a wide array of research topics: economics, network research, educational policy, algebraic geometry, social research, history, neurolinguistics, institutional analysis, psychology of motivation, study of technology development and of non-profit sector, of artificial intelligence and law – the variety is representative of HSE's research areas and programmes for undergraduate, graduate and PhD students.

International laboratories aim not only at being successful in research, but also at engaging students and young academics into research activity. They hold open workshops and conferences, as well as regular seminars, and besides being a place for

exchanging ideas and presenting new research findings, these events also help to assess young researchers and their participation before they join the laboratory as a part of its team.

### Laboratory of Algorithms and Technologies for Networks Analysis

**Laboratory of Algorithms and Technologies for Networks Analysis (LATNA)** was created in 2011 at HSE Nizhny Novgorod. It secured research grants to extend its work beyond the initial three year project – among other funding it received a grant from the Russian Science Foundation for working on the project "Clustering and Search Technique in Large

Scale Networks”. The HSE Look is glad to continue the talk with LATNA from the April issue in which **Panos Pardalos**, laboratory’s Scientific Advisor shared his impressions from the XVI April International Academic Conference on Economics and Social Development and told about the laboratory’s workshop on data analysis methods.

*What is the focus of the laboratory’s research and its applications?*

**Panos Pardalos**, University of Florida, Distinguished Professor of Industrial and Systems Engineering, Scientific Advisor of the Laboratory of Algorithms and Technologies for Networks Analysis at HSE Nizhny Novgorod

Our laboratory focuses on how to analyze large data sets and networks. Everybody collects data these days but many do not know what to do with it – it’s like having a lot of books but not knowing how to read them. A lot of data is “noisy” and has errors, and cleaning data is one of the big challenges. We also work on many mathematical problems behind the techniques of analyzing data. For instance, we work on such famous combinatorial discrete problems as the maximum clique and graph theory - they have a lot of applications, especially in social networks. Two years ago I was a co-editor of a two-volume Handbook of Optimization in Complex Networks, and one volume is devoted to social networks, and another – to theoretical aspects.

Networks are applicable to all branches of science. They appear in biological research (biological networks, protein interaction) and computational neuroscience (brains are made up of the neurons and the dynamic connections between them). Social networks – like Facebook – are useful for studying how the news move around, how people share the information. At the laboratory we are also very interested in how different networks cooperate with each other and converge.

**Valeriy Kalyagin**, HSE Tenured Professor, Head of the Laboratory of Algorithms and Technologies for Networks Analysis

We also work with specific companies: for example, we use network analysis to help address the routing and logistics issues, or we work with analyzing large datasets, which is useful for IT companies.

The laboratory is situated in Nizhny Novgorod HSE branch but it also has good connections within other campuses of HSE: for example, this spring I gave a talk at the colloquium of the Faculty of Computer Science and one of our lab researchers and PhD students, Alexander Ponomarenko, was awarded the Ilya Segalovich scholarship from Yandex. We also plan a joint summer school with colleagues from St. Petersburg branch of HSE.

**Panos Pardalos**: Speaking of cooperation outside HSE, last year we organized two conferences: with the Institute of Information Transmission Problems of the Russian Academy of Science (RAS) and with Energy System Institute of the Siberian branch of the RAS.

*Does the lab engage students into research?*

**Panos Pardalos**: We have a lot of young people involved – PhD students, Master students, undergraduate students. We

hope to attract more young people to the laboratory through the summer school: it provides the right environment for intensive learning and for engaging students in the research. Young researchers get a chance to receive good feedback from professors and other students.

When we just started the laboratory five years ago, we were teaching the students how to present the research results, and I can see how they’ve grown – they are confident, they go to international conferences. We see this as a success of the laboratory: young people really engaged into research and learned how to participate in the academic events.

## The International Center for the Study of Institutions and Development (ICSID)

The International Center for the Study of Institutions and Development (ICSID) was established in 2011 and is led by **Andrei Yakovlev** and **Timothy M. Frye**. It brings together researchers in economics and political science from HSE, Columbia University, University of Wisconsin-Milwaukee, Emory University, Middlebury College and UCLA. Initially funded by a governmental grant for three years, the Center secured funding to continue its research and currently implements several projects: (1) Collective action; (2) Incentives for bureaucracy in Russia and China; (3) Social capital, trust, and cultural norms; (4) Political elites and economic performance in Russia; (5) Social Policy and Vocational Education.

**Thomas Remington**, Leading Research Fellow at the HSE and Goodrich C. White Professor of Political Science at Emory University, spoke to The HSE Look about the ICSID’s research projects.

*Which topics is the ICSID working on?*

We are united by the interest in political economy and in the ways in which the institutions affect social and economic results, and how political and economic conditions, in turn, foster the development of different forms of institutions. This is pure institutional analysis. Our work covers a broad range of research issues, and we implement several specific projects simultaneously. ICSID has an international team, so we always work not only to verify or improve a theory, but we also do it in comparative perspective. For instance, there is a rich amount of literature on institutional analysis, produced primarily in Western Europe or North America, and we test these hypotheses on data from Russia and China, and we do our best to broaden the scope of the existing theories and make them less one-dimensional. Thematically speaking, we are interested in relations between business and government, in electoral process, in regional and local bureaucratic elites.

Personally I have been focusing for six years now on comparative research on China and Russia. It is very interesting to trace how the institutions, which China borrowed to a large

degree from the USSR, are transforming as they are exposed to the market, in both countries. One of the big questions for the researchers is how to account for the soaring economic growth of the last 30 years in China. A possible answer is that the Chinese government rewards its officials and governors for economic success. Often this explanation is discussed in implied or clearly stated comparison with Russia: its government does not motivate the governors to succeed economically, while the promotion and career of Chinese officials depends on it. At ICSID we have a project studying Incentives for bureaucracy in Russia and China in which I participate with **Andrei Yakovlev**, **Michael Rochlitz** (Assistant Professor at the Faculty of Social Sciences), **Vera Kulpina** (HSE, PhD student and lecturer at the Faculty of World Economy and International Affairs), and **Alexander Libman** (Frankfurt School of Finance and Management). We are the first to test this hypothesis empirically: our team thoroughly gathered information about career paths of Russian and Chinese governors, and studied how they related to economic success of the region.

*Did you find the connection between economic advancement of the region and governors' careers?*

We discovered that Russian governors receive other incentives: their careers are dependent on other indicators, such as electoral results in the region. China does not hold elections, so this consideration is irrelevant for its system: they measure mostly by economic success of the region. Also, in Russia some governors have held their positions for a long time, while in China there is a so-called "up-or-out" system, meaning that after a fixed term the officials have to change to position: move up or down the career ladder. We do not see preparation of policy recommendations as our main goal, but certainly we are aware that our research results can be used as a basis for policy.

*You mentioned ICSID's interest in the relations of business and government. Are there any current projects?*

Yes, we have a project on Social Policy and Vocational Education which studies regional efforts on the part of businesses and officials to build effective cooperation with schools of vocational education. The system which existed during the Soviet period was quite advanced, but it requires a drastic transformation in the market economy. I have a different team for this ICSID project: **Israel Marques** (PhD student at Columbia University), **Irina Levina** (Research Fellow at HSE), **Denis Ivanov** (Research Fellow at HSE ICSID), **Andrei Govorun** (Junior Research Fellow at HSE), **Ekaterina Borisova** (Leading Research Fellow at HSE ICSID), **Vladimir Bazavliuk** (HSE PhD student). For over a year we have been studying how different regions are reforming the vocational education system together with business associations, such as Russian Union of Industrialists and Entrepreneurs. We see that schools and the industry are looking for new forms of cooperation and reviving old forms, such as mentorship.

However, these new forms of vocational education require committed cooperation efforts, so, from a theoretical viewpoint, we deal with the collective action dilemma: every participant knows that joint action brings the best result for every-

one but nobody wants to be vulnerable and to make sacrifices for the launch of the new project. We study what companies, business associations and governors do on the regional level for the development of vocational education – it is an interesting policy problem, especially when not all the participants are proactive in the roles they have.

*How many regions are successful in developing their system of vocational education? Do you study only Russia in this project or is it a cross-national comparison?*

So far we focus only on Russia but the research might expand on other countries, particularly China and post-Soviet states. There is a rich amount of data about the projects and performance of Russian regions, and we want to explore it fully.

The federal government held around 5 different competitions organized by Ministry of Education and Science and Agency for Strategic Initiatives, and 30-40 regions were deemed successful in developing their vocational education system. About ten of them received awards and commendations. According to our estimate, half the regions initiate some innovative projects in this sphere: there is a lot of healthy competition and diffusion of practices.

Speaking of best practices around the world, currently everyone is interested in German model of dual education, including the federal government of Russia. The quality of vocational education and of cooperation between schools and industry requires a lot: tools and machinery should be up to date, and the content of teaching should match them as well. The technological level of the industry changes very quickly nowadays, and such education systems cannot be static. We see that some Russian regions study the implementation of this dual education model in Germany and assess the resources they will need, how the qualification assessment system for graduates of such schools should look, etc. On the side of business, they want to see some guarantees that the investment in such programs will be recouped, that the graduates won't leave immediately for other regions.

*How do you primarily present your research results – through publications or participation in conferences?*

Both are necessary to present results to the academic community. One of the conditions of our funding is to publish research articles in world-class academic journals, but of course there is a lot of preparation before the actual article is published. First of all, we discuss research results within the laboratory – we hold many seminars for that, and then we present them at international conferences. For example, in April I presented our research on governors' careers and economic performance of the regions at the conference of Midwestern Political Science Association in Chicago. I received a lot of constructive criticism and feedback, and it will help our team to improve the work and its presentation. After that we'll send the paper to a journal – an editor might ask us to work further on it or will simply tell that it does not fit the profile of their journal, and it's a normal process. It takes a long time, but through these iterations we improve our written presentation of research.



*Are there students in the laboratory's projects? Do you find them through open calls or is it them finding you?*

We find research assistants among the students who are interested in our research topics, and we use HSE's program for funding research assistants. However, when we see that one of them has a lot of potential, we often invite them to take a position of junior researchers at the laboratory. Besides helping to gather and clean the data, such students also help to analyze it and to describe their findings. We include their writing, edited, of course, into the full paper, and they become co-authors of the final paper and learn how to work with presentation of research results to the academic community. It's beneficial for both sides: research teams get an assistant who helps with collecting and analyzing data and helps to broaden its scope, and young colleagues get to work on research problems together with more experienced researchers and learn how to present their findings.

## Researching Public Administration in Different Cultural Contexts

Jesse Campbell grew up in Northern Ontario in Canada. After graduating with a Master's degree in Philosophy from the University of Western Ontario (2005), he moved to South Korea to explore a new culture, a path that ultimately culminated in a PhD in Public Administration from Seoul National University (2014). Jesse joined the Department of Public and Local Service at the HSE in the fall of 2014.

*You studied philosophy during your master's studies in Canada. Later on you switched to public administration. Why did this transition happen? How did your interest in public administration arise?*

My transition from philosophy to public administration came with my decision to study in South Korea. I found the story

of Korea's economic development fascinating, particularly the role played by government. Studying public administration in Korea allowed me to work with experts in this field.

*What are your fields of interest in public administration?*

Currently I have two main streams of interest. On the one hand, I focus on core public management topics such as employee motivation and performance. However, I also continue to have an interest in topics relevant to the cultural and administrative context of East Asia, especially Korea. If possible, I hope to take advantage of my time at the HSE to broaden this focus to the Russian case.

*Is Russia a good place to continue working on your topics and why?*

It is an interesting one. Due to its distinctive development and characteristics, it can be a challenge to reconcile the realities of the Russian administrative context with mainstream trends in public administration scholarship, especially as these are often based on assumptions grounded in US or (West) European administrative development. At the same time, and to some extent precisely because the Russian case is less discussed in English language journals, there is an opportunity to make a contribution. I think that there are few better places than the HSE to explore this possibility.

*You have experience in living and working in South Korea as an academic. What did this Korean experience give you in terms of work and life in general?*

My time in Korea was valuable to me. Living and studying in a culture very different from one's own highlights the extent to which the 'truths' that we internalize during the course of our upbringing and education have limited applicability beyond our own culture. This realization continues to be relevant for me here in Russia. In a less abstract way, the competitiveness of Korean society made a strong impression on me.

*What are your work plans so far?*

The HSE provides international staff with ample time to focus on writing. I intend to take advantage of this.

## Visiting Scholars

Even during the summer the academic life at HSE doesn't stop. We are glad to present to you upcoming institutionally supported visits for July – please, contact the hosting departments or [visitingsscholar@hse.ru](mailto:visitingsscholar@hse.ru) for more information, and follow the HSE event announcements!

**Vicente Guallart**, Chief architect of Barcelona City Council  
Hosting Department at HSE: Graduate School of Urban Studies and Planning

**Dates: June 30 – July 5**

**John Polak**, Professor and Director of Research, Department of Civil and Environmental Engineering, Imperial College London  
Hosting Department at HSE: Graduate School of Urban Studies and Planning

**Dates: July 25 – August 1**