

Ivan Smirnov ibsmirnov@hse.ru

Computational social scientist

2018– Head of the Computational Social Science Lab, Higher School of Economics

We are using big data and machine learning to understand complex social phenomena. Our main focus is on digital inequality and psychological well-being in the digital age.

Education

2018 PhD (cum laude¹), National Research University Higher School of Economics

Thesis: Students' differentiation by academic performance on a social networking site

2014 M.Sc. Systems and Synthetic Biology, Center for Research and Interdisciplinarity, Paris

2009 Applied Mathematics and Computer Science, St. Petersburg State University

Specialist degree² with specialization in mathematical statistics

Research visits

2019 Chair for Computational Social Sciences and Humanities, RWTH Aachen

2016, 2018 Complexity Science Hub, Vienna

Teaching Experience

2017–2019 Social Data Science/Introduction to Computational Social Science, HSE University

2014 Statistics, Paris Descartes University

Work Experience

Prior to academia, worked as a web developer and a technical leader at several startups. Also worked on various non-profit projects and was part of Teach for Russia founding team.

Languages

English (professional working proficiency), French (DEL F B2), Russian (native)

Programming Languages

Python, R, MATLAB, JavaScript, PHP, C#

Grants, Scholarships and Awards

2019 PI, Russian Science Foundation grant №19-18-00271

2018 Co-PI, HSE University Basic Research Program grant №31

2016 Institute of Education The Pioneers Award

2014 Advanced Doctoral Program Scholarship, HSE University

2013 SCIRE Foundation Excellence Scholarship

2012 French Government Scholarship

¹ In Russia, only one class of honors is used

² It is a 5 year degree equivalent to Master

Selected Conferences

2019 IC2S2 – International Conference on Computational Social Science

When magic outperforms horoscopes: predicting students' academic performance from their short texts on social media

2019 ICWSM – International AAAI Conference on Web and Social Media

Emotional pulse of schools (workshop Data for the Wellbeing of Most Vulnerable)

2018 ICWSM – International AAAI Conference on Web and Social Media

Predicting PISA scores from students' digital traces

2018 IC2S2 – International Conference on Computational Social Science

Gender Bias in Sharenting: Both Men and Women Mention Sons More Often Than Daughters on Social Media

2017 SocInfo – International Conference on Social Informatics

The Digital Flynn Effect: Complexity of Posts on Social Media Increases over Time

2017 IC2S2 – International Conference on Computational Social Science

School segregation in the digital space

2017 NetSci-X – International Conference on Network Science

Formation of homophily in academic performance

Selected Publications

Sivak, E. & Smirnov, I. (2019) Parents mention sons more often than daughters on social media, *Proceedings of the National Academy of Sciences*.

Smirnov, I. (2019). Schools are segregated by educational outcomes in the digital space, *PLOS One*.

Smirnov, I. (2018) Predicting PISA scores from students' digital traces. In *International AAAI Conference on Web and Social Media*.

Smirnov, I., & Thurner, S. (2017). Formation of homophily in academic performance: students change their friends rather than performance. *PLOS One*.

Smirnov, I. (2017). The digital Flynn effect: complexity of posts on social media increases over time. In *International Conference on Social Informatics*.

Polivanova K., & Smirnov, I. (2017). What is in my profile? Understanding interests of modern adolescents through VKontakte data. *Educational Studies*, 2, 106-122.

Smirnov, I., Sivak E., Kozmina Y. (2016). In search of lost profiles: the reliability of VKontakte data and its importance for educational research. *Educational Studies*, 4, 134-152.

Interests

Computational social science, education, data science, complex systems, AI, social change, The Economist, «Eugene Onegin»