

Orsolya Vásárhelyi, PhD

orsolya.vasarhelyi@uni-corvinus.hu, <https://www.orsivasarhelyi.com/>

EDUCATION

2015-2020: PhD in Network and Data Science

Central European University, Department of Network and Data Science, Budapest Hungary

Thesis: Computational and Relational Understanding of Gender Inequalities in Science and Technology

Supervisor: Balázs Vedres, Grade: Summa Cum Laude

2010 – 2012, MSc. in Survey Statistics

Eötvös Lóránd Universtiy, Department of Social Sciences, Budapest, Hungary

Thesis: Key Opinion Leader Identification in the Hungarian Blog Space

Supervisor: András Vicsek, Grade: 5/5

2007 – 2010 BA in Social Sciences

Eötvös Lóránd Universtiy, Department of Social Sciences, 2007 – 2010, Budapest, Hungary

Saint-Louis University of Brussels, The Institute for Social Science & Interdisciplinarity, 2009 – 2010, Brussels, Belgium

ACADEMIC EXPERIENCE

2025 September -

Associate Professor, Research Group lead

Institute of Data Analytics and Information Systems

& Corvinus Institute of Advanced Studies, Center for Collective Learning

Corvinus University of Budapest, Budapest, Hungary

PI of the Computational Inequalities Research Group (2.5 postdocs, 2.5 Phd students, 3 MSc students) part of the LearnData EU funded Project.

2023 September –

2025 September

Assistant Professor, Research Group lead

Institute of Data Analytics and Information Systems

& Corvinus Institute of Advanced Studies, Center for Collective Learning

Corvinus University of Budapest, Budapest, Hungary

2023 January -

September

Postdoctoral Research Fellow

Democracy Institute Central European university, Budapest Hungary

Postdoctoral Researcher in REENGAGE Project, using data-driven methods to reengage civic organizations for democracy in the age of disruptive social media PI: Balázs Vedres, Funding: John D. And Catherine T. MacArthur

2022 May -

2023 September

Maternity Leave

2021 April –

2022 May

Postdoctoral Research Fellow

Corvinus Institute of Advanced Studies, NETi Lab

Geolocation analysis on the impact of Covid-19 on human mobility. PIs: Balázs Lengyel, László Lőrincz

2020 September –

2021 August

Postdoctoral Research Fellow

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Centre for Interdisciplinary Methodologies, University of Warwick, Coventry, UK

Postdoctoral Research Fellow as part of the ERC Advanced Senior Investigator Award entitled Diversity and Performance: Networks of Cognition in Markets and Teams. PI: Prof. David Stark

2019 March –
July

Visiting Researcher

Department of Communication Studies, Chicago, IL, USA

Graduate Researcher at Ágnes-Emőke Horvát's Link Lab, at the Department of Communication Studies.

2018 June –
August

Data Science for Social Good Fellow

DSSG Europe, NOVA School of Business and Economics Lisbon, Portugal

The Data Science for Social Good Fellowship is a prestigious, highly selective summer program led by the University of Chicago to train aspiring data scientists to work on real-world data science projects with social impact.

2017 June –
2018 January

Graduate Data Science Intern

Typeform, Barcelona, Spain

Building a prediction model for product adoption through virality using large-scale data, and network science techniques.

TEACHING EXPERTISE

2025 Spring

AI & Data Strategy

Corvinus University of Budapest | with Réka Franciska Vas

Took part of course development. Taught lecture: Responsible Data Science, Storytelling with Data, Fairness, Accuracy, Confidentiality and Transparency in AI (FACT in AI), Applied Ethics: Legal Aspects, Sustainability and Privacy, Data Driven Organization – Field Studies (HR, Finance, etc.)

2025 Spring

Introduction to Python Programming for Social Scientists

Corvinus University of Budapest

Newly developed practical class, especially developed for students with non-technical backgrounds. Class covers topics such as basic syntax, data gathering, api usage and data analysis and visualization with pandas.

2024 Summer

Introduction to Python Programming for Social Scientists

ECPR Methods School

This five-day Python programming course is for social scientists who want to learn how to conduct data collection and complex data analysis with Python. The course is highly interactive, with hands-on exercises and practical tips to help you start students' journey in the world of Python. By the end of the course, students will have gained a strong foundation in Python programming and be able to apply your new skills to your own research projects.

2023 Summer

Introduction to Python Programming for Social Scientists

ECPR Methods School

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2023 Winter	<i>Introduction to Python Programming for Social Scientists</i> ECPR Methods School
2022 Winter	<i>Introduction to Python Programming for Social Scientists</i> ECPR Methods School
2022 Fall	<i>Introduction to Python Programming (3-day course)</i> GESIS This three-day Python programming course is for students with limited technical background to be prepared for a 5-day long intense course. The course is highly interactive, with hands-on exercises and practical tips to help you start students' journey in the world of Python.
2021 Summer	<i>Introduction to Python Programming for Social Scientists (2X)</i> ECPR Methods School
2021 Fall	<i>Introduction to Python Programming for Social Scientists)</i> GESIS with Luis Natera
2021 Winter	<i>Introduction to Python Programming for Social Scientists</i> ECPR Methods School
2020 Summer	<i>Introduction to Python Programming for Social Scientists</i> ECPR Methods School <i>Introduction to Social Network Analysis (3-day course)</i> ECPR Methods School This 3-day social network analysis course gives an overview of the basic concepts of network science, centrality and cohesion metrics, communities, an network visualization with Gephi.
2020 Winter	<i>Introduction to Applied Social Network Analysis (5-day course)</i> ECPR Methods School, Bamberg Germany with Silvia Frierescu This 5-day applied social network analysis course gives a comprehensive introduction to network science by introducing the key concepts of the discipline, such centrality and cohesion metrics, communities and roles, diffusion, an network visualization. The class provide hands-on practical applications using R.
2019 Winter	<i>Introduction to Python Programming for Social Scientists</i> ECPR Methods School, Bamberg, Germany <i>Introduction to Social Network Analysis (3-day course)</i> ECPR Methods School, Bamberg, Germany
2018 Spring	<i>Applied text analysis from close reading to Machine Learning</i> Central European University, Budapest, Hungary With Jessie Labov & Levente Littvay <i>Introduction to Social Network Analysis (3-day course)</i> ECPR Methods School
2017 Spring	<i>Science of Success</i> Central European University, Budapest, Hungary With Albert-László Barabási
2016 Spring	<i>Programozás II. (2X)</i>

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Eötvös Lóránd University, Department of Social Sciences
Introduction to python programming for Survey MSc students. Topics covered:
introduction to python, web scraping, API usage, data visualization, data analysis,
network science, multivariate statistics, machine learning.

2011 Fall

Statistika (2X)

Eötvös Lóránd University, Department of Social Sciences

Introduction to statistics for International Relations BA students.

2010 Spring

Statistika

Eötvös Lóránd University, Department of Social Sciences

Introduction to statistics for Sociology BA students.

SERVICE

CONFERENCES, MEMBERSHIPS

2025 Organizer and Program Committee Member of GeoInno 2026

2025 Organizer and Program Committee Member of WIDS Budapest 2025

2023, 2024, 2025 Program Committee Member WebSci23

2021-2022 Advisory Board Member of the Global Women in Data Science Initiative at Stanford University

2020 Organizer of the Women in Data Science (WiDS) Central and Eastern Europe Conference

2018, 2019, 2024 Chief Organizer of the Women in Data Science in Budapest Conference

2018- Women in Data Science, Stanford University Ambassador of Budapest

REVIEWING

I am an active reviewer on high impact factor international journals (*PNAS, Nature Human Behaviour, Nature Scientific Reports, PNAS Nexus, EPJ Data Science*), Computer Sciences Conferences (*ACM WebSci, ACM CHI conference on Human Factors in Computing Systems, ACM AI, Ethics, and Society*) and local journals (*Intersections. East European Journal of Society and Politics*).

Member of the Doctoral Committee of Gergő Háló (CUB), 2024

MENTORSHIP

PhD Supervision

2024- Akbota Saduakassova (Doctoral School of Sociology and Communication Science, CUB), co-supervised with Attila Varga

2024- Amina Akhmediyeva (Doctoral School of Sociology and Communication Science, CUB) co-supervised with Beáta Nagy

2024- Andrea Sipos (Doctoral School of Economics and Business Informatics, CUB) supervised with Rebeka O. Szabó

TDK, OTDK – Student Research Competition

2025 Judit Hermán & Kíra Kovács (Msc students, BME) Invited competitor at EELISA International Student Research Competition, Bucharest, Romania

2025 Judit Hermán & Kíra Kovács (Msc students, BME) 1st place at OTDK, Miskolc

2024 Judit Hermán & Kíra Kovács (Msc students, BME) 1st place at BME TDK

Research paper: "Does ChatGPT Have a Gender Bias? – Analyzing the Citation Patterns of Large Language Models"

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EKÖP

2024 Zsófia Hajnal (PhD Candidate, CUB)

Topic: *“Ethical Considerations Along the Environmental-Human-AI Interdependence Span – Lessons from an Inverse Turing Test”*

RESEARCH

RESEARCH INTEREST

My research lies at the intersection of computational social science, gender studies, and human-machine interaction. Using interdisciplinary approaches from network and data science, I investigate how networks induce inequalities. For example, I study the impact of networks and diversity on scholarly communication, the impact of artificial agents on human collaborations, and how minorities can utilize their personal networks to succeed in technical fields.

Within the Center for Collective Learning, I lead the Computational Inequalities Research Group which focuses on the role of technology in inequalities, specifically understanding whether technology reinforces or mitigates already existing inequalities in our society.

GRANTS & SCHOLARSHIP

Knowledge to Action Initiative, Academia Europea, “Improving Machine Self-Assessment by Algorithmic Turing Learning at the LLM Frontier” 2025-2027, (€1,500)

“Women and Science Chair, Université Paris Dauphine - PSL, THE FOUNDATION L'OREAL, GENERALI FRANCE, LA POSTE, SAFRAN, TALAN, AMUNDI, “Intersectional Inequalities in Online Science Disseminations” 2023-2024. (€10,000)

Corvinus Research Excellence (CKK), 2024

Corvinus Research Excellence (CKK), 2023

Corvinus Research Excellence (CKK), 2022

Corvinus Research Excellence (CKK), 2021

WomEncourage ACM Grant, Rome, Italy, 2019.

Facebook WiDS MicroFellowship, Stanford, CA, USA, 2019.

DRSG Northwestern University, Chicago, IL, USA, 2019.

Data Science for Social Good Fellowship, Lisbon, Portugal 2018.

WomEncourage ACM Grant, Barcelona, Spain 2017.

Grace Hopper Scholar, GHC, Orlando, FL, US, 2017.

PyCon, Diversity Grant, Portland, OR, USA, 2016.

NetSciX Young Researcher Conference Grant, Tel-Aviv, Israel, 2016.

Bridge Budapest Fellowship, UAE, South Korea, India, Japan, 2015.

Erasmus Scholarship. Brussels, Belgium, 2010

PUBLISHED PAPERS

Vásárhelyi, O., & Brooke, S. (2025). Computing Gender. In: T. Yasseri (Ed.), Handbook of Computational Social Science. Edward Elgar Publishing Ltd. (forthcoming) [link](#)

Hermán, J., Kovács, K.D., Wang, Y., **Vásárhelyi, O.** (2025) Does ChatGPT have a gender bias? - Analyzing the Citation Patterns of Large Language Models in *European Workshop on Algorithmic Fairness* (pp. 417-422). PMLR.

Abreu Novais, M., Del Papa, B., Han, Q., Mohan, K., **Vásárhelyi, O.**, Wang, Y., & Zejnilovic, L. (2025). Investigating patterns of tourist movement using multiple data sources. JOURNAL OF VACATION MARKETING: AN INTERNATIONAL JOURNAL FOR THE TOURISM AND HOSPITALITY INDUSTRIES.

<http://doi.org/10.1177/13567667241297706>

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Vásárhelyi, O., & Vedres, B. (2025). Quantifying behavior-based gender discrimination on collaborative platforms. PNAS NEXUS, 4(2). <http://doi.org/10.1093/pnasnexus/pgaf026>

Li, L., **Vásárhelyi, O.,** & Vedres, B. (2024). Social bots spoil activist sentiment without eroding engagement. SCIENTIFIC REPORTS, 14(1). <http://doi.org/10.1038/s41598-024-74032-0>

Vásárhelyi, O., & Horváth, E. Á. (2024). Who benefits from altmetrics? In 19th international conference on scientometrics & informetrics (Vol. 1, pp. 627–646).

Vedres, B., & **Vásárhelyi, O.** (2023). Inclusion unlocks the creative potential of gender diversity in teams. SCIENTIFIC REPORTS, 13(1). <http://doi.org/10.1038/s41598-023-39922-9>

Koltai, J., **Vásárhelyi, O.,** Röst, G., & Karsai, M. (2022). Reconstructing social mixing patterns via weighted contact matrices from online and representative surveys. SCIENTIFIC REPORTS, 12(1). <http://doi.org/10.1038/s41598-022-07488-7>

Vásárhelyi, O., Zakhlebin, I., Milojević, S., & Horvát, E.-Á. (2021). Gender inequities in the online dissemination of scholars' work. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 118(39). <http://doi.org/10.1073/pnas.2102945118>

Karsai, M., Koltai, J., **Vásárhelyi, O.,** & Röst, G. (2020). Hungary in Mask/MASZK in Hungary. CORVINUS JOURNAL OF SOCIOLOGY AND SOCIAL POLICY, 11(2), 139–146. <http://doi.org/10.14267/CJSSP.2020.2.9>

Natera Orozco, L. G., Deritei, D., Vancsó, A., & **Vásárhelyi, O.** (2020). Quantifying Life Quality as Walkability on Urban Networks. In Complex Networks and Their Applications VIII, Vol. 2: Proceedings of the Eighth International Conference on Complex Networks and Their Applications, COMPLEX NETWORKS 2019 (pp. 905–918). http://doi.org/10.1007/978-3-030-36683-4_72

Vásárhelyi, O. (2020). Computational and relational understanding of gender inequalities in science and technology.

Vedres, B., & **Vásárhelyi, O.** (2019). Gendered behavior as a disadvantage in open source software development. EPJ DATA SCIENCE, 8. <http://doi.org/10.1140/epjds/s13688-019-0202-z>

Félix, A., & **Vásárhelyi, O.** (2018). „A cigány kártya”. METSZETEK - TÁRSADALOMTUDOMÁNYI FOLYÓIRAT, 7(2), 131–155.

WORKING PAPERS

Hajnal, Zs., Zhu, M., **Vásárhelyi, O.** (2025). Detection Over Deception - An Inverted Turing Test with LLMs (under review)

Vásárhelyi, O., Barnett, J., Milojević, S., & Horvát, E.-Á. (2025). A double-edged sword in science dissemination: Uneven links between online visibility and citations (under review)

Wang, Y., Barnett, J., Horvát, E.-Á., **Vásárhelyi, O.,** (2025). Limitations of Using LLMs for Name-Based Gender Inference

Gallo L, Akhmediyeva, A., Borza, E., **Vásárhelyi, O.,** (2025). Article classification in OpenAlex can bias bibliometric analyses

Li, L., **Vásárhelyi, O.,** & Vedres, B. (2025). Social bots decrease cohesion in human communities

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INVITED TALKS

Meet the Computational Inequalities Research Group, Budapest Winter Workshop, Budapest, Hungary, 2025

What AI Can Teach Us In Terms Of Human Development, Roundtable Discussion, Corvinus Research Week, Budapest, Hungary, 2024

Bots reshape human collaborations in the wild, Budapest Winter Workshop, Budapest, Hungary, 2024

Can online visibility mitigate gender bias in academia?, Launch Gala of the Center for Collective Learning, Budapest Hungary, 2023

Társadalmi hálózati és viselkedési minták dinamikus követése a pandémia alatt Magyarországon online és offline adatokkal, Epidemiológia és modellezés szakmai workshop, Kecskemét, Hungary, 2021

CONTRIBUTED TALKS

Evaluating Gender Bias in Large Language Models in Academic Knowledge Production, EAAF, Eindhoven, The Netherlands, 2025

Women-majority teams benefit less from online visibility, ICSSI, Denmark, Copenhagen, 2025,

Intersectional Inequalities in the Impact of Online Visibility on Citations, Networks, NetSci2023, Vienna, Austria, 2023

The role of gender diversity and inclusion in success and creativity in the video game industry, Networks2021, Boston, MA, USA (online), 2021

Why diversity is not enough? Grace Hopper Celebration of Women in Computing, (vGHC) 2020.

Gender diversity in collaboration networks and the online popularity of scientists, IC2S2, Cambridge, MA, USA, (online) 2020.

Gender diversity in collaboration networks and the online popularity of scientists, NetSci, Rome, Italy, (online) 2020.

Gender diversity in collaboration networks and the online popularity of scientists, NetSciX, Tokyo, Japan, 2020.

Gender diversity in collaboration networks and online popularity of scientists, Complex Networks, Lisbon, Portugal, 2019.

Does social media democratize science? The role of gender homophily in scientific success, WomEncourage ACM, Rome, Italy, 2019.

Introducing WiDS Budapest, WiDS annual ambassador meeting @Stanford University, Stanford, CA, USA, 2019.

Why Gender Diversity is not enough? NICO Lightning Talks Session, Northwestern University, Chicago, IL, USA, 2019.

Gendered creative careers in software development, Gendered Creative Teams Workshop CEU Budapest, Hungary, 2017.

Why women leave IT? WiDS Budapest, Budapest Hungary, 2017.

POSTER SESSIONS

Limitations of Using LLMs for Name-Based Gender Inference, EAAF, Eindhoven, The Netherlands, 2025

Evaluating Gender Bias in Large Language Models in Academic Knowledge Production, ICSSI, Denmark, Copenhagen, 2025

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Gendered behavior as a disadvantage in open source software development, NetSciX, Tokyo, Japan, 2020.

Does Open Source Open Doors? ACM Student Research Competition, GHC18, Houston, TX, USA, 2018.

Gendered creative careers in software development, WomEncourage ACM 2017, Barcelona, Spain

Gender homophily and success on GitHub, NetSciX, Tel-Aviv, Israel, 2017.

The effect of team gender homophily on female developers' career, CSS Winter Symposium, Cologne, Germany, 2016.

SCIENCE DISSEMINATION

INTERNATIONAL MEDIA COVERING OF PUBLISHED WORK

[Online space fails to deliver as equalizer for female scientists](#), EurekAlert!, 2021.09.21.

[Study: Female Scientists Don't Get the Mentions They Deserve](#), Inside Higher Ed, 2021.09.21.

[Science's gender gap persists online as male researchers dominate mentions](#), The Science Advisory, 2021.09.21.

[Research by women shared less than work by male colleagues, study finds](#), Physics World, 2021.09.21.

[Le travail académique des femmes est sous-représenté sur internet](#), heidi.news, 2021.09.21.

[Women's disadvantage: because of who they are, or what they do?](#), Springer Blog, 2019.08.01.

SCIENCE DISSEMINATION IN HUNGARIAN

VIDEO

[Hiba==üzenet | Orsolya Vásárhelyi | TEDxLibertyBridgeWomen](#), 2019.12.14.

PODCASTS/RADIO INTERVIEWS

[Trend Idők](#), Kossuth Rádió, 2025.05.14

[Nők a tudományban és az IT-ban - beszélgetés Vásárhelyi Orsolyával](#), Kovács Ádám Hangpostája, Tilos Rádió, 2024.03.07.

[pontjókori! Életünk dolgai – Vásárhelyi Orsolya](#) 2024. 06. 18

[Vásárhelyi Orsolya, adattudós - Családi Manna Ferencz Gabival](#) 2024. 06. 16

[DIVERZITÁS vs AI | Torzít a Midjourney?](#) | Biznisz Boyz, 2023.11.20.

[Nem csak adat, akarat is kéne a nemi sztereotípiák megdöntéséhez](#) | HWSW, 2023.09.15.

[Vásárhelyi Orsolya: Az adattudomány mutatja meg a rejtett diszkrimináció működését](#) | Qubit Podcast, 2021.08.01,

[Láthatatlan nők Vásárhelyi Orsolya adattudóssal](#), „Drágám hol a vacsorám?”, Tilos Rádió, 2020.10.21.

[Társadalmi nemek, digitális igének?](#), Magenta Podcast, 2020.03.27

[Férfi és női szerepek, diverzitás és esélyegyenlőség](#), Magenta Podcast, 2020.03.18.

INTERVIEWS, ARTICLES

Corvinus Research: Men and Women not Equal in Online Professional Space, Budapest Business Journal, 2025.03.20.

[Hogyan befolyásolják a botok az éghajlatváltozással kapcsolatos online aktivizmust?](#), NGR REPORT, 2025.03.17.

[Így fest a nők helyzete a munka világában 2025-ben](#), HRPortál, 2025.03.08

[Kiderült: a szakmailag nőies viselkedés még férfiakat is diszkriminálhat](#), HRPortál, 2025.03.07

[Az online szakmai térben sincs egyenlőség a nemek között](#), Helló sajtó! 2025.03.07

[Valóban jobbakk lennének a videojátékok, ha több nő venne részt a fejlesztésben?](#), Qubit, 2023.09.25.

[Hogy Karikó Katalin ilyen magasra jutott, csak egy hiba a mátrixban](#), Telex, 2022.07.01.

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10 NŐ, AKI LENDÜLETET AD 2022-NEK, ELLE Magyarország, 2022.01.15.,
[Egy adattudós kiszámolta, mennyit kell gyalogolni Budapesten a legközelebbi hulladékiszigethez, és lehangoló az eredmény](#), QUBIT, 2021.12.02.
[„HA MA ÁLLNÁNK SZEMBEN EGY MAMUTTAL, ELHINNÉNK, HOGY MEG IS ÖLHET, VAGY EZT IS CSAK FAKE NEWSNAK TALÁLNÁNK?” – INTERJÚ VÁSÁRHELYI ORSOLYA ADATTUDÓSSAL](#), WMN, 2021.12.02.
[VANNAK POLITIKUSOK, AKIK MÉG MINDIG AZT GONDOLJÁK, MINDENHEZ ÉRTENEK](#), DÍVÁNY, 2021.04.28.,
[VIRÁG HELYETT – ELŐSZÓ A KÖZÉP-KELET EURÓPAI ADATTUDÓS NŐK ELSŐ KONFERENCIÁJÁHOZ](#), DAJER.HU, 2021.03.03.
[A magyarok többsége nem akarja beoltatni magát Covid ellen](#), Telex, 2020.10.05.
[A munkám a szenvedélyem: Vásárhelyi Orsolya adattudós](#), Marie Claire, 2020.02.10.
[Nem kell megvédeni, megvédjük mi magunkat: női big data szakértők adtak elő a CEU-n](#), Forbes Hungary, 2019.03.08.
[Women in data science, Vásárhelyi Orsolyával, a Female Success through Collaborative Networks c. disszertáció szerzőjével beszélgettünk](#), Corvinus Kiosk, 2018.03.08.

REFERENCES

Ágnes-Emőke Horvát, a-horvat@northwestern.edu,
Associate Professor of Communication and Computer Science
Northwestern University

Staša Milojević, smilojev@indiana.edu
Associate Professor, Luddy School of Informatics, Computing, and Engineering
Indiana University

Balázs Vedres, vedresb@ceu.edu
Professor of Network and Data Science, Head of Department of Sociology and Social Anthropology
Central European University