

## **CURRICULUM VITAE**

### **Attila Varga**

Senior Research Fellow  
Corvinus University of Budapest  
Institute of Social and Political Sciences & ANETI Lab  
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## **ACADEMIC APPOINTMENTS**

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2024 - present, Senior Research Fellow  
Corvinus University of Budapest  
Institute of Social and Political Sciences & ANETI Lab  
2020 - 2024 Postdoctoral Fellow  
Indiana University  
Center for Complex Networks and Systems Research  
Luddy School of Informatics, Computing, and Engineering

## **EDUCATION**

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2020 PhD in Sociology  
University of Arizona, Tucson, AZ  
Thesis: "Temporal Evolution of Scholarly Communication"  
Committee: Ronald Breiger (co-chair), Erin Leahey (co-chair), Yotam Shmargad  
2006 MA in Sociology  
University of Szeged, Hungary  
2004 BA in Sociology  
University of Szeged, Hungary

## **RESEARCH AND TEACHING INTERESTS**

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Sociology of Science and Knowledge, Economic Sociology, Complex Networks, Organization Theory, Data Science, Innovation Policy

## **IN PROGRESS**

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**Varga A** "Autocatalysis of Social Capital in Scholarly Networks."

**Varga A**, Kojaku S, Silva F “Measuring Research Interest Similarity with Transition Probabilities.”

**Varga A** “Origin of technological capabilities and the first mover advantage.”

Kojaku S, Boothby C, Silva F, **Varga A**, Yan X, Milojevic S, Flammini A, Menczer F, Ahn Y "Mapping the Space of Research Interests with Embedding Methods."

Stahlman G, **Varga A** “Classifying the Search Strategies and Relevance Assessments of Scientists’ Identifying Data for Reuse while Reading Journal Articles.”

## **PUBLICATIONS**

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2022. **Varga A** “The Narrowing of Literature Use and the Restricted Mobility of Papers in the Sciences” *PNAS* 119(17): e2117488119

2019. **Varga A** “Shorter Distances between Papers over Time are Due to More Cross-Field References and Increased Citation Rate to Higher Impact Papers.” *PNAS* (116)44: 22094-22099p.

2018. **Varga A** “Novelty and Foreseeing Research Trends; The Case of Astrophysics and Astronomy.” *The Astrophysical Journal Supplement Series* (236)21: 15p.

2015. Lengyel B, **Varga A**, Ságvári B, Jakobi Á, Kertész J “Geographies of an Online Social Network.” *PLoS ONE* 10(9): e0137248: 13p.

2015. **Varga A** “Changes of Personal Network Composition and Inter-Group Ties from 1987 to 2005 in Hungary.” *Belvedere* 24(4): 131-134.

2012. **Varga A** and Nemeslaki A “Do organizational network studies constitute a cohesive communicative field? Mapping the citation context of organizational network research.” *The Journal of Sociology and Social Anthropology* 15(5): 348-363.

2011. **Varga A** “Measuring the Semantic Integrity of Scientific Fields: a Method and a Case Study of Sociology.” *Scientometrics* 88(1): 163-177.

## CONFERENCE PRESENTATIONS

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2024. **Varga A** "First-mover Patents." *The International Conference for Computational Social Science*, Philadelphia, PA. Contributed talk.

2024. **Varga A** "Measuring Research Interest Similarity with Transition Probabilities." *International Conference on the Science of Science and Innovation*, Washington, DC. Contributed talk.

2024. **Varga A**, Kojaku S, Silva F "Measuring Research Interest Similarity with Transition Probabilities." *International School and Conference on Network Science*, Washington, DC. Contributed talk.

2023. **Varga A** "Measuring Research Interest Similarity with Transition Probabilities." *International Society for Scientometrics and Informetrics*, Bloomington, IN. Team Science and Innovation Workshop.

2023. **Varga A** "Autocatalysis of Social Capital in Scholarly Networks." *International Conference on the Science of Science and Innovation*, Chicago, IL. Poster presentation.

2023. Kojaku S, Boothby C, Silva F, **Varga A**, Yan X, Milojevic S, Flammini A, Menczer F, Ahn Y "Mapping the Space of Research Interests with Embedding Methods." *NetSci*. Vienna

2023. Kojaku S, Boothby C, Silva F, **Varga A**, Yan X, Milojevic S, Flammini A, Menczer F, Ahn Y "Mapping Scientific Foraging." *International Conference on Computational Social Science (IC<sup>2</sup>S<sup>2</sup>)*. Copenhagen

2022. **Varga A** "The Narrowing of Literature Use and the Restricted Mobility of Papers in the Sciences." *International Conference on the Science of Science and Innovation*, Washington, DC. Poster presentation.

2022. Kojaku S, Boothby C, Silva F, **Varga A**, Yan X, Milojevic S, Flammini A, Menczer F, Ahn Y "Mapping Scientific Foraging." *International Conference on the Science of Science and Innovation*, Chicago, IL

2018. **Varga A** "Transitivity and Synchronicity in Scientific Discovery: Simultaneous Exploration of Embedded Knowledge." *Mathematical Sociology Regular Session, American Sociological Association, 2018 Annual Meeting*, Philadelphia, PA

2013. **Varga A**, Eliason S "Changes in the Relationships of Macro-Groups in Multiple Dimensions: An Analysis of the 1985 and 2004 General Social Survey Datasets." *International Network for Social Network Analysis, XXXIII Sunbelt*, Hamburg

2012. **Varga A** "Do organizational network studies constitute a cohesive communicative field? Mapping the citation context of organizational network research." *Networks in the Global World*, St. Petersburg

2011. **Varga A** "Uncertainty in Social Networks." *NetSci*. Budapest

2011. **Szanyi A, Varga A** "Aesthetic and Social Structure of the Hungarian Contemporary Art Field." Arts, Humanities, and Complex Networks, *NetSci*. Budapest

2010. **Varga A** "The Fragmentation of Sociological Discourse." *International Network for Social Network Analysis, XIX Sunbelt*, Riva Del Garda

2009. **Varga A** "Structural features of fields of sociological discourse in the light of citations networks." *5th UK Social Networks Conference*. London

### **INVITED TALKS**

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2020 January 10th, *Long Term Trends of Boundary Spanning Research and the Allocation of Research Attention in the Sciences*, Centre for Economic and Regional Studies, Hungarian Academy of Sciences

2019 June 27th, *Structural Conditions of Novelty Seeking in the Sciences; Knowledge Growth and the Channels of Knowledge Integration*, Kellogg School of Management, Northwestern University

2011 October 13th *Social Media Platforms as Potential Sources for Stratification Research*, Centre for Social Sciences, Hungarian Academy of Sciences

### **GUEST LECTURES**

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2019 February 17<sup>th</sup> ITI 200: Social Informatics, Rutgers University

2018 January 30<sup>th</sup> ESOC 211: Collaborating in Online Communities, University of Arizona

## **TEACHING EXPERIENCE**

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### **Data Science**

2018 Fall (online), 2018 Summer (online), University of Arizona,  
School of Information

### **Introduction to Statistics**

2017 Fall, 2018 Spring, Instructor for lab Sessions, University of  
Arizona, Social and Behavioral Sciences

### **Introduction to Sociology**

2017 Spring (online), 2016 Spring (in person), University of Arizona,  
School of Sociology

### **Social Network Analysis**

2019 Spring (online), 2013 Summer (online) University of Arizona,  
School of Sociology  
2011 Spring, 2011 Fall, 2012 Spring (in person) Corvinus University  
of Budapest

## **AWARDS**

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School of Sociology, University of Arizona, Travel Award 2018  
Graduate and Professional Student Council, University of Arizona, Travel  
Award 2018  
School of Sociology, University of Arizona, Travel Award 2013  
Graduate and Professional Student Council, University of Arizona, Travel  
Award 2013  
Hungarian State Scholarship 2005-2006

## **SKILLS**

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Proficient in data processing and analysis (Python)  
Proficient in statistical analysis (R and Stata)  
Managing high performance computing jobs (PBS, SLURM)  
Languages: Hungarian (native), English (fluent), German (beginner)

## **SERVICE**

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Reviewer: *Intersections*, *PLOS ONE*, *PNAS*, *Scientometrics*, *Szociológiai  
Szemle*  
2016-2018. Recruitment Committee, University of Arizona, School of  
Sociology  
2006-2012: Secretary of Hungarian Network for Social Network Analysis,  
HUNNET

## REFERENCES

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***Yong-Yeol Ahn***

*Professor*

Indiana University  
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Computing, and Engineering  
1015 E. 11th St.  
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***Staša Milojević***

*Professor*

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***Ronald Breiger***

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