

V I N C E N T T R A A G

PERSONAL DATA

NAME	Vincent Antonio Traag	XXXXXXXXXXXXXXXXXX
DATE OF BIRTH	XX XX XXXX	XXXX XX XXXXXX
NATIONALITY	Dutch	the Netherlands
GENDER	Male	✉ vincent@traag.net
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EDUCATION

2013	PhD in Applied Mathematics, Université catholique de Louvain Thesis: “Algorithms and Dynamical Models for Communities and Reputation in Social Networks” (advisers: prof. dr. Van Dooren & prof. dr. Nesterov)
2008	MSc in Sociology, <i>Cum Laude</i> , University of Amsterdam Thesis: “Popularity distributions with social influence: comparing YouTube with Hollywood.” (advisers: dr. Bruggeman & dr. Gijswijt). Extracurricular large minor in Mathematics, <i>Dynamical Systems</i> (60 ECTS).
2006	BSc in Sociology, University of Amsterdam Minor in Political and Social Philosophy (30 ECTS). Editor-in-chief of <i>Sociologisch Mokum</i> , student magazine for sociology.
2002	Artificial Intelligence, Utrecht University No degree
2001	Computer Science, Hogeschool Utrecht Propedeuse ¹

RESEARCH INTERESTS

computational social science • complex networks • social dynamics • social influence • modelling science • group structure • conflict

PUBLICATIONS

- [1] **V. A. Traag**. Inferring the causal effect of journals on citations. *Quantitative Science Studies*, pages 1–9 (2021). doi:10.1162/qss_a.00128.
- [2] A. Akbaritabar, **V. A. Traag**, A. Caimo, and F. Squazzoni. Italian sociologists: a community of disconnected groups. *Scientometrics*, 124:2361–2382 (2020). doi:10.1007/s11192-020-03555-w.
- [3] G. Colavizza, R. Costas, **V. A. Traag**, N. J. van Eck, T. van Leeuwen, and L. Waltman. A scientometric overview of covid-19. *PLoS ONE*, 16(1):e0244839 (2020). doi:10.1371/journal.pone.0244839.
- [4] **V. A. Traag**. Metrics and peer review agreement at the institutional level (2020).
- [5] L. Waltman and **V. A. Traag**. Use of the journal impact factor for assessing individual articles need not be wrong. *F1000Research*, 9(366) (2020). doi:10.12688/f1000research.23418.1.

¹In the Netherlands, upon completing the first year of education a diploma called the *propedeuse* is awarded.

- [6] L. Šubelj, L. Waltman, **V. A. Traag**, and N. J. van Eck. Intermediacy of publications. *Royal Society open science*, 7(1):190207 (2020). doi:10.1098/rsos.190207.
- [7] A. Berbers, J. Uitermark, **V. A. Traag**, and L. D’Haenens. From the margin to the centre? A relational analysis of discursive contention in the minority integration debate in the Low Countries. *International Communication Gazette* (2019). doi:10.1177/1748048519842476.
- [8] **V. A. Traag** and L. Waltman. Systematic analysis of agreement between metrics and peer review in the UK REF. *Palgrave Communications*, 5(1):29 (2019). doi:10.1057/s41599-019-0233-x.
- [9] **V. A. Traag**, L. Waltman, and N. J. van Eck. From Louvain to Leiden: guaranteeing well-connected communities. *Scientific Reports*, 9(1):5233 (2019). doi:10.1038/s41598-019-41695-z.
- [10] **V. A. Traag**, P. Doreian, and A. Mrvar. Partitioning signed networks. In P. Doreian, V. Batagelj, and A. Ferligoj, editors, *Advances in network clustering and blockmodeling*, chapter 8. Wiley-Interscience (2018). doi:10.1002/9781119483298.ch8.
- [11] **V. A. Traag**, M. Malgarini, T. Cicero, S. Sarlo, and L. Waltman. Peer review uncertainty at the institutional level. In *STI 2018 Conference Proceedings*, pages 990–998 (2018).
- [12] **V. A. Traag**, R. Quax, and P. M. A. Sloot. Modelling the distance impedance of protest attendance. *Physica A*, 468:171–182 (2017). doi:10.1016/j.physa.2016.10.054.
- [13] L. Waltman and **V. A. Traag**. Impact factors: Is the Nature Index at odds with DORA? *Nature*, 545(7655):412–412 (2017). doi:10.1038/545412a.
- [14] A. Decuyper, A. Browet, **V. A. Traag**, V. D. Blondel, and J.-C. Delvenne. Clean up or mess up: the effect of sampling biases on measurements of degree distributions in mobile phone datasets (2016).
- [15] **V. A. Traag**. Complex Contagion of Campaign Donations. *PLoS ONE*, 11(4):e0153539 (2016). doi:10.1371/journal.pone.0153539.
- [16] **V. A. Traag**, R. Reinanda, and G. van Klinken. Structure of a Media Co-occurrence Network. In S. Battiston, F. D. Pellegrini, G. Caldarelli, and E. Merelli, editors, *Proceedings of ECCS 2014*, pages 81–91. Springer International Publishing (2016). doi:10.1007/978-3-319-29228-1_8.
- [17] J. Uitermark, **V. A. Traag**, and J. Bruggeman. Dissecting discursive contention: A relational analysis of the Dutch debate on minority integration, 1990–2006. *Social Networks*, 47:107–115 (2016). doi:10.1016/j.socnet.2016.05.006.
- [18] J. Hicks, **V. A. Traag**, and R. Reinanda. Old Questions, New Techniques: A Research Note on the Computational Identification of Political Elites. *Comparative Sociology*, 14(3):386–401 (2015). doi:10.1163/15691330-12341347.
- [19] J. Hicks, **V. A. Traag**, and R. Reinanda. Turning Digitised Newspapers into Networks of Political Elites. *Asian Journal of Social Science*, 43(5):567–587 (2015). doi:10.1163/15685314-04305004.
- [20] **V. A. Traag**. Faster unfolding of communities: Speeding up the Louvain algorithm. *Physical Review E*, 92(3):+032801 (2015). doi:10.1103/PhysRevE.92.032801.
- [21] **V. A. Traag**, R. Aldecoa, and J.-C. Delvenne. Detecting communities using asymptotical surprise. *Physical Review E*, 92(2):+022816 (2015). doi:10.1103/PhysRevE.92.022816.
- [22] **V. A. Traag**, R. Reinanda, and G. van Klinken. Elite Co-Occurrence in the Media. *Asian Journal of Social Science*, 43(5):588–612 (2015). doi:10.1163/15685314-04305005.

- [23] C. J. Thomas, J. Lambrechts, E. Wolanski, **V. A. Traag**, V. D. Blondel, E. Deleersnijder, and E. Hanert. Numerical modelling and graph theory tools to study ecological connectivity in the Great Barrier Reef. *Ecological Modelling*, 272:160–174 (2014). doi:10.1016/j.ecolmodel.2013.10.002.
- [24] **V. A. Traag**. *Algorithms and Dynamical Models for Communities and Reputation in Social Networks*. Springer Theses. Springer, Heidelberg (2014). doi:10.1007/978-3-319-06391-1.
- [25] **V. A. Traag**, R. Reinanda, J. Hicks, and G. van Klinken. Dynamics of media attention. In *Proceedings of ICCSA 2014*, pages 301–304. Le Havre, France (2014).
- [26] B. C. Csáji, A. Browet, **V. A. Traag**, J.-C. Delvenne, E. Huens, P. Van Dooren, Z. Smoreda, and V. D. Blondel. Exploring the mobility of mobile phone users. *Physica A: Statistical Mechanics and its Applications*, 392(6):1459–1473 (2013). doi:10.1016/j.physa.2012.11.040.
- [27] Y. Lupu and **V. A. Traag**. Trading Communities, the Networked Structure of International Relations, and the Kantian Peace. *Journal of Conflict Resolution*, 57(6):1011–1042 (2013). doi:10.1177/0022002712453708.
- [28] **V. A. Traag**. *Algorithms and dynamical models for communities and reputation in social networks*. Ph.D. thesis, Université catholique de Louvain, Louvain-la-Neuve (2013).
- [29] **V. A. Traag**, G. Krings, and P. Van Dooren. Significant scales in community structure. *Scientific Reports*, 3:2930 (2013). doi:10.1038/srep02930.
- [30] **V. A. Traag**, P. Van Dooren, and P. De Leenheer. Dynamical Models Explaining Social Balance and Evolution of Cooperation. *PLoS ONE*, 8(4):e60063 (2013). doi:10.1371/journal.pone.0060063.
- [31] J. Bruggeman, **V. A. Traag**, and J. Uitermark. Detecting Communities through Network Data. *American Sociological Review*, 77(6):1050–1063 (2012). doi:10.1177/0003122412463574.
- [32] J. Uitermark, **V. A. Traag**, and J. Bruggeman. De strijd om discursieve macht: een relationele discoursanalyse van het Nederlandse integratiedebat, 1990-2005. *Sociologie*, 8(2):219–247 (2012). doi:10.5117/SOC2012.2.UITE.
- [33] **V. A. Traag**, A. Browet, F. Calabrese, and F. Morlot. Social Event Detection in Massive Mobile Phone Data Using Probabilistic Location Inference. In *Proceedings IEEE SocialCom'2011*, pages 625–628. IEEE, Boston (2011). doi:10.1109/PASSAT/SocialCom.2011.133.
- [34] **V. A. Traag**, P. Van Dooren, and Y. Nesterov. Indirect reciprocity through gossiping can lead to cooperative clusters. In *IEEE Symposium on Artificial Life 2011*, pages 154–161. IEEE, Piscataway (2011). doi:10.1109/ALIFE.2011.5954642.
- [35] **V. A. Traag**, P. Van Dooren, and Y. Nesterov. Narrow scope for resolution-limit-free community detection. *Physical Review E*, 84(1):+016114 (2011). doi:10.1103/PhysRevE.84.016114.
- [36] **V. A. Traag**, Y. E. Nesterov, and P. V. Dooren. Exponential Ranking: taking into account negative links. *Lecture Notes in Computer Science*, 6430:192–202 (2010). doi:10.1007/978-3-642-16567-2.
- [37] **V. A. Traag** and J. Bruggeman. Community detection in networks with positive and negative links. *Physical Review E*, 80(3):+036115 (2009). doi:10.1103/PhysRevE.80.036115.
- [38] **V. A. Traag**. *Popularity Distributions with Social Influence*. Master’s thesis, University of Amsterdam, Amsterdam (2008).

TEACHING EXPERIENCE

JULY 2020	CWTS Scientometrics Summer School Online (organisation & teaching)
MAY 2019	CWTS Scientometrics Summer School Haining, China (organisation & teaching)
SEPTEMBER 2018	Introduction to Bibliometric Network analysis CWTS Course, Leiden, the Netherlands
JULY 2018	CWTS Scientometrics Summer School Leiden, the Netherlands (organisation & teaching)
SEPTEMBER 2017	Introduction to Bibliometric Network analysis CWTS Course, Leiden, the Netherlands
SEPTEMBER 2016	Introduction to Bibliometric Network analysis CWTS Course, Leiden, the Netherlands
2011–2012	Linear and Non-linear Optimisation Bachelor Applied Mathematics, Université catholique de Louvain
2011–2012	Graph Theory Bachelor Applied Mathematics, Université catholique de Louvain
2010–2012	Combinatorial Optimisation Master Applied Mathematics, Université catholique de Louvain
2007–2008	Quantitative Data Analysis 2 Bachelor Sociology, University of Amsterdam
2007	Quantitative Data Analysis 1 Bachelor Sociology, University of Amsterdam

WORK EXPERIENCE

2015–PRESENT	Senior researcher CWTS Senior researcher at the Quantitative Science Studies (QSS) research group.	Leiden, the Netherlands
2013–2015	Post-doc KITLV Post-doc at the Elite Network Shifts (ENS) project, responsible for the network analysis.	Leiden, the Netherlands
2009–2013	Ph.D. student Université catholique de Louvain Ph.D. student at the research group of Large Graphs and Networks.	Louvain-la-Neuve, Belgium
2008–2009	Consultant Deloitte Responsible for various projects involving data quality and integrity. These projects ranged from checking data conversions to running financial analyses.	Amstelveen, Netherlands
2006–2008	Programmer GMWeb Designing and programming functional aspects of a variety of web applications such as webshops and GPS applications.	Amsterdam, Netherlands
2003–2005	Database Assistent International Institute for Asian Studies Responsible for maintaining the contact database and mailing lists for various events such as conferences and seminars. Redesigned the database, and made it more accessible to the staff.	Leiden, Netherlands
2000–2003	Programmer ProcIT Designing and programming of various projects, most of them web applications, varying from a color space analyser to a catalogue maintenance programme.	Cappelle aan den IJssel, Netherlands
2002	Manager ProcIT Managing Nepalese programmers who were implementing various Dutch IT projects.	Kathmandu, Nepal

CONFERENCE ORGANISATION

2021/06/19	Annual Modeling and Simulation Conference Program Committee, <i>George Mason University</i>
2021/06/14	International Conference on Scientometrics & Informetrics Program Committee, <i>Leuven</i>
2019/12/10	Complex Networks 2019 Program Committee, <i>Lisbon</i>
2019/09/02	International Conference on Scientometrics & Informetrics Program Committee, <i>Rome</i>
2019/07/17	International Conference on Computational Social Science Program chair, <i>Amsterdam</i>
2018/12/11	Complex Networks 2018 Program Committee, <i>Cambridge</i>
2018/09/12	International Conference on Science and Technology Indicators Program Committee, <i>Leiden</i>
2013/11/07	Complexity in the Digital Humanities Organiser, <i>Amsterdam</i>
2013/05/03	NetMob 2013 Organising Committee, <i>Boston</i>
2012/09/03	SocialCom 2012 Program Committee, <i>Amsterdam</i>

PRESENTATIONS

Invited speaker & workshops

2021/08/19	Perspectives on Scientific Error: Parsing History and Comparing View-points Lorentz Workshop, <i>Leiden</i>
2020/02/05	Inferring the causal effect of journals on citations Invited speaker, <i>Complexity Science Hub</i> , Vienna
2018/03/06	Intermediacy of publications Invited speaker, probability seminar, <i>Leiden</i>
2018/01/23	Peer review and metrics in research evaluation Invited speaker, ANVUR, <i>Rome</i>
2017/06/06	Why does the quantitative-qualitative divide in sociology persist? Invited speaker, UvA sociology seminar, <i>Amsterdam</i>
2017/09/19	Methods & algorithms for detecting communities in large networks Invited speaker, EURandom Workshop, <i>Eindhoven</i>
2017/05/16	Dynamical models of social balance and the evolution of cooperation Invited speaker, ARS'17, <i>Naples</i>
2017/03/28	Networks of Science Invited speaker, LCN2 brainstorm day, <i>Leiden</i>
2016/11/21	Big data and Urban Geography Invited Speaker, <i>Louvain-la-Neuve</i>
2016/03/18	Graphs and social systems Invited Speaker, <i>Avignon</i>
2015/06/22	Clusters, Games and Axioms Lorentz Workshop, <i>Leiden</i>
2015/06/02	Higher order structure in networks Invited speaker NetSci 2015 Sattelite, <i>Zaragoza</i>
2014/09/30	Discovering communities in networks Keynote KNOWeSCAPE 2014, <i>Thessaloniki</i>
2013/08/26	Gossip and the Management of Reputation Lorentz Workshop, <i>Leiden</i>

Regular presentations

2021/06/12	The causal intricacies of studying gender in science ISSI 2021, <i>Online</i>
2020/09/29	Metrics and peer review agreement at the institutional level PEERE 2020, <i>Online</i>
2019/09/04	Quantifying the long-term influence of scientific publications ISSI 2019, <i>Rome</i>
2019/09/04	Intermediacy of publications ISSI 2019, <i>Rome</i>
2019/09/03	Persistence of the journal hierarchy in Open Access ISSI 2019, <i>Rome</i>
2019/07/20	Persistence of the journal hierarchy in Open Access IC2S2, <i>Amsterdam</i>
2019/07/20	Modelling the causal effect of journal impact on citation dynamics IC2S2, <i>Amsterdam</i>
2019/07/20	Modelling the causal effect of journal impact on citation dynamics IC2S2, <i>Amsterdam</i>
2019/07/20	Uncovering important intermediate publications IC2S2, <i>Amsterdam</i>

2019/07/19	From Louvain to Leiden: guaranteeing well-connected communities IC2S2, <i>Amsterdam</i>
2018/09/12	Peer review uncertainty at the institutional level STI 2018, <i>Leiden</i>
2017/09/06	Replacing peer review by metrics in the UK REF? STI 2017, <i>Paris</i>
2017/09/06	Are citations driven by journal impact? STI 2017, <i>Paris</i>
2017/09/06	Use of the journal impact factor for assessing individual articles need not be wrong STI 2017, <i>Paris</i>
2016/09/21	Complex Contagion of Campaign Donations Computational Social Science Satellite CCS 2016, <i>Amsterdam</i>
2016/09/20	Problems of the Louvain algorithm CCS 2016 Plenary lightning talk, <i>Amsterdam</i>
2016/06/24	Complex Contagion of Campaign Donations IC2S2 2016, <i>Evanston</i>
2016/04/29	Methods & algorithms for detecting communities in large networks Seminar LCN2, <i>Leiden</i>
2016/02/19	Notes on clustering publications based on citations networks Seminar CWTS, <i>Leiden</i>
2015/06/08	Geography of protest participation International Conference on Computational Social Science, <i>Helsinki</i>
2015/06/04	Detecting communities using asymptotical Surprise NetSci 2015, <i>Zaragoza</i>
2015/06/03	Faster unfolding of communities: speeding up the Louvain algorithm NetSci 2015, <i>Zaragoza</i>
2015/06/02	Geography of protest participation NetSci 2015, <i>Zaragoza</i>
2014/09/30	The structure of media attention ECCS 2014, <i>Lucca</i>
2014/06/24	Dynamics of Media Attention ICCSA 2014, <i>Le Havre</i>
2014/04/09	Introduction to Complex Networks Semantic Web Research Retreat, <i>Egmond aan zee</i>
2014/03/30	Structure of a media co-occurrence network Association of Asian Studies Annual Conference, <i>Philadelphia</i>
2014/03/14	Structure of a media co-occurrence network South-east Asia Seminar, <i>KITLV</i>
2014/02/21	Structure of a media co-occurrence network Seminar, <i>Erasmus University Rotterdam</i>
2013/06/27	Community structure in complex networks Seminar, <i>Radboud University</i>
2013/11/07	Finding Elites in Media Co-occurrence Networks Complexity in Digital Humanities, <i>Amsterdam</i>
2013/10/31	Community Structure in Complex Networks Meertens Institute, <i>Amsterdam</i>
2013/09/17	Significant Scales in Community Structure ECCS 2013, <i>Barcelona</i>
2013/08/26	Negative Links, Reputation and Cooperation

	Workshop Lorentz Institute, <i>Leiden</i>
2013/07/09	Problem of Social Balance Open Problem Session, <i>Université catholique de Louvain</i>
2013/05/25	Reconstructing Third World Elite Rotation Event from Newspapers Sunbelt 2013, <i>Hamburg</i>
2012/04/19	Reputation Dynamics Through Gossiping NetSci 2012, <i>Evanston</i>
2012/04/19	Reputation Dynamics Through Gossiping Negative Ties and Social Networks Workshop, <i>Budapest</i>
2012/02/24	Resolution-limit-free Community Detection Seminar, <i>Université catholique de Louvain</i>
2011/09/10	Social Event Detection SocialCom 2011, <i>Boston</i>
2011/06/15	Cooperation, Reputation & Gossiping Seminar, <i>Université Libre de Bruxelles</i>
2011/06/05	Resolution-limit-free Community Detection NetSci 2011, <i>Budapest</i>
2011/04/15	Cooperation, Reputation & Gossiping Alife 2011, <i>Paris</i>
2011/03/15	Exponential Ranking Benelux Meeting, <i>Lommel, Belgium</i>
2011/02/24	Social Event Detection Seminar, <i>Université catholique de Louvain</i>
2010/10/29	Cooperation, Reputation & Gossiping Seminar, <i>Medizinische Universität Wien</i>
2010/10/27	Exponential Ranking SocInfo 2010, <i>IIASA, Laxenburg</i>
2010/02/12	Slice Modularity Seminar, <i>Université catholique de Louvain</i>
2009/06/11	Community Detection with Negative Links Dag van de Sociologie, <i>University of Amsterdam</i>
2009/06/09	Community Detection with Negative Links Coping with Crises, <i>ETH, Zürich</i>
2009/03/25	Popularity and Social Influence Seminar, <i>University of Amsterdam</i>
2009/02/10	Community Detection with Negative Links and Social Influence Seminar, <i>Université catholique de Louvain</i>

REVIEW EXPERIENCE

Advances in Complex Systems • Chaos • European Physical Journal B • IEEE Systems Journal • IEEE Transactions on Automatic Control • Information Processing & Management • International Journal of Computer Mathematics • Journal of the Association for Information Science and Technology • Journal of Conflict Resolution • Journal of Statistical Mechanics • Journal of Informetrics • Numerical Linear Algebra with Applications • Nature Communications • Physica A • Physical Review E • Physical Review Letters • PLoS ONE • Quantitative Science Studies • Research Evaluation • Scientific Reports • Social Networks • Transactions on Information Systems

HONOURS AND AWARDS

- Nominee for ICTEAM Ph.D. Award, Université catholique de Louvain, 2014.
- Ph.D. Thesis selected for Springer Theses, 2014.
- Bruce Russett Award, Best article in JCR, 2013.
- Nominee for thesis award, University of Amsterdam, 2009.
- Best thesis award in Sociology, University of Amsterdam, 2009.

COMPUTER SKILLS

EXCELLENT	Python, C(++), SQL, L ^A T _E X, MatLab, various tools (e.g. <code>gawk</code> , <code>sed</code>)
ADVANCED	Java, R, SPSS, HTML, XML
INTERMEDIATE	Mathematica

Experienced on Linux, Mac and Windows.

LANGUAGES

	SPEAKING	READING/WRITING
Dutch	Native speaker	Native speaker
English	Fluent	Fluent
French	Proficient	Proficient
German	Basic	Basic

PERSONAL INTERESTS

Sports climbing	Cycling	Tennis
Travelling	Reading	