

Deryc T. Painter, Ph.D.

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Current position

Assistant Research Professor, School of Complex Adaptive Systems, Arizona State University

Areas of specialization

Social Network Analysis • History of Science • Computational Linguistics • Data Science

Education

2011 AS in Science, Yavapai College, Prescott, AZ
2013 BS in Biology, Arizona State University, Tempe, AZ
2019 PhD in Biology (Biology and Society), Arizona State University, Tempe, AZ

Grants, honors & awards

2011 All Arizona Academic Team, Arizona Board of Regents
2013 Barrett Honor's College Graduate
2014 Travel Award, HSS-PSA 2014 Annual Meeting
2015 Travel Award, ACMES Annual Meeting
2015 Honorable Mention, Poster Session, CCS 2015
2016 Travel Award, SIAM Annual Meeting

Publications & Presentations

INVITED TALKS

2014 "Detecting Scientific Innovation" presented at *HSS-PSA 2014 Annual Meeting*, Chicago, IL *with Manfred Laubichler*
2015 "Agent-based Models and Co-authorship: Applications in the History of Science" presented at *ACMES Annual Meeting*, London, ON, CA
2016 "Evolution of Co-authorship Networks as a Measure of Interdisciplinarity" presented at *SIAM Annual meeting*, Chicago, IL
2016 "How Does Something Genuinely New Emerge in Evolution and History?" presented at *2016-2017 Center for Biology and Society Conversation Series*, Arizona State University
<https://cbs.asu.edu/center-biology-and-society-conversation-series>
2019 "Agnostically Identifying Scientific Innovations in a Knowledge Landscape" presented at the North-western Institute on Complex Systems (NICO), Northwestern University, Evanston, IL

2020 "Finding Innovations" presented at *Collective Intelligence 2020*, digital conference

PUBLICATIONS

- 2013 Painter, Deryc T. (2013), "The Effects of the Eurasian Collared Dove on Native Dove Populations in Arizona", *Honors Thesis*.
- 2014 Bliss, Nadya T., Peirson, B. R. Erick, Painter, Deryc T., Laubichler, Manfred D. (2014), "Anomalous subgraph detection in publication networks: Leveraging truth", *48th Asilomar Conference on Signals, Systems, and Computers* pp.2005–2009.
- 2019 Painter, Deryc T. (2019), "Computational Interdisciplinarity: a study in the History of Science", *PhD Thesis*.
- 2019 Painter, Deryc T., Daniels, Bryan C., Jost, Jürgen (2019), "Network Analysis for the Digital Humanities: principles, problems, extensions", *ISIS* 110 (3) pp.538-554.
- 2020 Painter, Deryc T., van der Wouden, Frank, Laubichler, Manfred D., Youn, Hyejin (2020), "Quantifying simultaneous innovations in evolutionary medicine", *Theory in Biosciences* 139(4) pp.319-335
- 2021 Painter, Deryc T., Daniels, Bryan C., Laubichler, Manfred D. (2021), "Innovations are Disproportionately Likely in the Periphery of a Scientific Network", *Theory in Biosciences* 140(4) pp.391-399
- 2021 Painter, Deryc T., Shutters, Shade T., Wentz, Elizabeth (2021) "Innovations and Economic Output Scale with Social Interactions in the Workforcet" *Urban Science* 5(1) pp. 21
- 2022 Painter, Deryc T., Kempes, Chris, West, Geoffrey, Laubichler, Manfred D. (2021) "The Four Regimes of the Great Acceleration" *The Anthropocene Review* (in review)
- 2022 Painter, Deryc T., Damerow, Julia, Laubichler, Manfred D. (2021) "Evolution of Evolutionary Medicine", *The Dynamics of Science: Computational Frontiers in History and Philosophy of Science*, Pittsburg University Press, (ed. Ramsey, Grant and De Block, Andreas) (in press)

Teaching

- 2013-2018 Teaching assistant, BIO 340: General Genetics, Arizona State University
- 2015 Team Member, BIO 340: General Genetics Curriculum Reform, Arizona State University
- 2019 Adjunct Professor, BIO 100: Biology Concepts, Mesa Community College
- 2019 Adjunct Professor, CDH 580: Computational and Digital Humanities Lab, Arizona State University
- 2020 Adjunct Professor, BIO 100: Biology Concepts, Chandler-Gilbert Community College
- 2021-2022 Assistant Research Professor, CAS 521: Network Analytics for Complex Adaptive Systems, Arizona State University

Outreach

- 2010-2011 Volunteer Student Teacher, Mile High Middle School, Prescott, AZ
- 2011 Reviewer, Math and Science Bowl, Yavapai College, Prescott, AZ
- 2013-2014 Volunteer, Graduate Partners in Science Education, Eagle College Prep Academy, Phoenix, AZ
- 2014 Volunteer Web Developer, Journal of Evolution, Medicine, and Public Health
- 2014 Volunteer Web Developer, Center for Biology and Society, Arizona State University, Phoenix, AZ
- 2014-2017 Content Creator, Ask A Biologist, Arizona State University, Phoenix, AZ
- 2018-2021 Board Member and Chief Grant Writer, Educational Outreach, Unity Through Community

Previous Work Experience

2005-2011

Lead Mechanic, Sears Auto Center, Prescott, AZ (928) 777-7795