CURRICULUM VITAE

David A. Broniatowski

Department of Engineering Management and Systems Engineering
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Degrees Held

2010	Ph.D., Engineering Systems: Technology, Management, and Policy	Massachusetts Institute of Technology (MIT)
2006	S.M., Aeronautical and Astronautical Engineering	MIT
2006	S.M., Technology and Policy	MIT
2004	S.B., Aeronautical and Astronautical Engineering	MIT

Positions Held

2024–Present	Professor, Department of Engineering Management and Systems Engineering	The George Washington University, Washington, DC
2024–Present	Professor, Department of Computer Science (by courtesy)	The George Washington University, Washington, DC
2024–Present	Deputy Director, NIST-NSF Institute for Trustworthy AI in Law and Society (TRAILS)	The George Washington University, Washington, DC
2023–Present	co-PI, and GW Lead, NIST-NSF Institute for Trustworthy AI in Law and Society (TRAILS)	The George Washington University, Washington, DC
2023–Present	GWU-PREP Program Coordinator	The George Washington University, Washington, DC
2020–2024	Associate Director, Institute for Data, Democracy, and Politics	The George Washington University, Washington, DC
2019–2024	Associate Professor, EMSE	The George Washington University, Washington, DC
2013–2019	Assistant Professor, EMSE	The George Washington University, Washington, DC
2012–2013	Postdoctoral Fellow, Department of Emergency Medicine, Center for Advanced Modeling in the Social, Behavioral, and Health Sciences	Johns Hopkins University, Baltimore, MD
2011–2012	Faculty Member, Foundation for Advanced Education in the Sciences, Department of Public Health	National Institutes of Health, Bethesda, MD
2010–2012	Senior Research Scientist	Synexxus, Inc., Arlington, VA

Publications

10 Selected Publications

10. Broniatowski, D. A., and V. F. Reyna. "How Should We Design Trustworthy Artificial Intelligence?" In *Neuroeconomics, Judgment, and Decision Making*, 2nd ed. Routledge/Taylor and Francis, accepted.

9. Broniatowski, D. A., et al. "The Epistemologies of Trust: Conflicting Worldviews in the "Trustworthy AI" Discourse." *AI and Ethics* 6, no. 3 (June 2026): 260. ISSN: 2730-5953, 2730-5961, visited on 04/22/2026. https://doi.org/10.1007/s43681-026-01087-2. https://link.springer.com/10.1007/s43681-026-01087-2.

8. Saeed, M. H., et al. "Simulating Trustworthy Content Delivery on Social Media by Manipulating Algorithms and Architecture." In *18th International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation*. 18th International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation. Pittsburgh, PA, Oct. 2025.

7. Broniatowski, D. A., et al. "The Role of Mental Representation in Sharing Misinformation Online." *Journal of Experimental Psychology: Applied* (July 25, 2024). ISSN: 1939-2192, 1076-898X, visited on 07/29/2024. https://doi.org/10.1037/xap0000517. https://doi.apa.org/doi/10.1037/xap0000517.

6. Gleaves, L. P., and D. A. Broniatowski. "Impact of Gist Intervention on Automated System Interpretability and User Decision Making." *Cognitive Research: Principles and Implications* 9, no. 1 (Oct. 9, 2024): 70. ISSN: 2365-7464, visited on 10/09/2024. https://doi.org/10.1186/s41235-024-00594-2. https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-024-00594-2.

5. Broniatowski, D. A. *Psychological Foundations of Explainability and Interpretability in Artificial Intelligence*. NIST Internal Report. National Institute of Standards and Technology, Apr. 12, 2021. Visited on 04/21/2021. https://doi.org/10.6028/NIST.IR.8367. https://nvlpubs.nist.gov/nistpubs/ir/2021/NIST.IR.8367.pdf.

4. Reyna, V. F., D. A. Broniatowski, and S. M. Edelson. "Viruses, Vaccines, and COVID-19: Explaining and Improving Risky Decision-making." *Journal of Applied Research in Memory and Cognition* 10, no. 4 (Dec. 2021): 491–509. ISSN: 22113681, visited on 12/13/2021. https://doi.org/10.1016/j.jarmac.2021.08.004. https://linkinghub.elsevier.com/retrieve/pii/S2211368121000772.

3. Phillips, P. J., et al. *Four Principles of Explainable Artificial Intelligence*. NIST Internal Report. Aug. 17, 2020. Visited on 07/19/2021. https://doi.org/10.6028/NIST.IR.8312-draft. https://nvlpubs.nist.gov/nistpubs/ir/2020/NIST.IR.8312-draft.pdf.

2. Broniatowski, D. A., and V. F. Reyna. "A Formal Model of Fuzzy-Trace Theory: Variations on Framing Effects and the Allais Paradox." *Decision* 5, no. 4 (Oct. 2018): 205–252. ISSN: 2325-9973, 2325-9965, visited on 10/16/2018. https://doi.org/10.1037/dec0000083. http://doi.apa.org/getdoi.cfm?doi=10.1037/dec0000083.

1. Broniatowski, D. A., and C. Tucker. "Assessing Causal Claims about Complex Engineered Systems with Quantitative Data: Internal, External, and Construct Validity." *Systems Engineering* 20, no. 6 (Nov. 2017): 483–496. ISSN: 10981241, visited on 01/22/2018. https://doi.org/10.1002/sys.21414. http://doi.wiley.com/10.1002/sys.21414.

Peer-Reviewed Journal Publications

81. Broniatowski, D. A., et al. "The Epistemologies of Trust: Conflicting Worldviews in the "Trustworthy AI" Discourse." *AI and Ethics* 6, no. 3 (June 2026): 260. ISSN: 2730-5953, 2730-5961, visited on 04/22/2026. https://doi.org/10.1007/s43681-026-01087-2. https://link.springer.com/10.1007/s43681-026-01087-2.

80. Abroms, L. C., et al. "Assessing the Adherence of ChatGPT Chatbots to Public Health Guidelines for Smoking Cessation: Content Analysis." *Journal of Medical Internet Research* 27 (Jan. 30, 2025): e66896. ISSN: 1438-8871, visited on 01/31/2025. https://doi.org/10.2196/66896. https://www.jmir.org/2025/1/e66896.

79. Abroms, L. C., et al. "ChatGPT-Based Chatbot for Help Quitting Smoking via Text Messaging: An Interventional Study." *JMIR Formative Research* 9 (Oct. 10, 2025): e79402. ISSN: 2561-326X, visited on 10/10/2025. https://doi.org/10.2196/79402. https://formative.jmir.org/2025/1/e79402.

78. Broniatowski, D. A., et al. "Explaining Twitter's Inability to Effectively Moderate Content during the COVID-19 Pandemic." *Scientific Reports* 15, no. 1 (Oct. 15, 2025): 36096. ISSN: 2045-2322, visited on 10/16/2025. https://doi.org/10.1038/s41598-025-20033-6. https://www.nature.com/articles/s41598-025-20033-6.

77. Wu, T.-C., et al. "Participant Engagement in a Moderated Facebook Group to Promote COVID-19 Vaccination." *Health Education Research* 40, no. 2 (Apr. 9, 2025): cyaf008. ISSN: 0268-1153, 1465-3648, visited on 10/16/2025. https://doi.org/10.1093/her/cyaf008. https://academic.oup.com/her/article/doi/10.1093/her/cyaf008/8109179.

76. Wysota, C. N., et al. "User Experiences With a Moderated Facebook Group to Promote Vaccination." *American Journal of Health Promotion* 39, no. 1 (Jan. 1, 2025): 89–102. ISSN: 0890-1171, visited on 07/22/2025. https://doi.org/10.1177/08901171241272061. https://doi.org/10.1177/08901171241272061.

75. Yang, Y., et al. "Coordinated Link Sharing on Facebook." *Scientific Reports* 15, no. 1 (May 5, 2025): 15684. ISSN: 2045-2322, visited on 05/07/2025. https://doi.org/10.1038/s41598-025-00233-w. https://www.nature.com/articles/s41598-025-00233-w.

74. Abroms, L. C., et al. "Empathic Engagement With the COVID-19 Vaccine Hesitant in Private Facebook Groups: A Randomized Trial." *Health Education & Behavior* 51, no. 1 (Feb. 2024): 10–20. ISSN: 1090-1981, 1552-6127, visited on 02/01/2024. https://doi.org/10.1177/10901981231188313. http://journals.sagepub.com/doi/10.1177/10901981231188313.

73. Bailard, C. S., et al. ""Keep Your Heads Held High Boys!": Examining the Relationship between the Proud Boys' Online Discourse and Offline Activities." *American Political Science Review* 118, no. 4 (Nov. 2024): 2054–2071. ISSN: 0003-0554, 1537-5943, visited on 11/18/2024. https://doi.org/10.1017/S0003055423001478. https://www.cambridge.org/core/product/identifier/S0003055423001478/type/journal_article.

72. Broniatowski, D. A., et al. "The Role of Mental Representation in Sharing Misinformation Online." *Journal of Experimental Psychology: Applied* (July 25, 2024). ISSN: 1939-2192, 1076-898X, visited on 07/29/2024. https://doi.org/10.1037/xap0000517. https://doi.apa.org/doi/10.1037/xap0000517.

71. Gleaves, L. P., and D. A. Broniatowski. "Impact of Gist Intervention on Automated System Interpretability and User Decision Making." *Cognitive Research: Principles and Implications* 9, no. 1 (Oct. 9, 2024): 70. ISSN: 2365-7464, visited on 10/09/2024. https://doi.org/10.1186/s41235-024-00594-2. https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-024-00594-2.

70. Porter, E., et al. "Shoves, Nudges and Combating Misinformation: Evidence on a New Approach." *Behavioural Public Policy* (Oct. 31, 2024): 1–17. ISSN: 2398-063X, 2398-0648, visited on 11/01/2024. https://doi.org/10.1017/bpp.2024.42. https://www.cambridge.org/core/product/identifier/S2398063X24000423/type/journal_article.

69. Xu, P., D. A. Broniatowski, and M. Dredze. "Twitter Social Mobility Data Reveal Demographic Variations in Social Distancing Practices during the COVID-19 Pandemic." *Scientific Reports* 14, no. 1 (1 Jan. 12, 2024): 1165. ISSN: 2045-2322, visited on 01/12/2024. https://doi.org/10.1038/s41598-024-51555-0. https://www.nature.com/articles/s41598-024-51555-0.

68. Zhong, W., et al. "Proud Boys on Telegram." *Journal of Quantitative Description: Digital Media* 4 (Jan. 8, 2024): 1–47. ISSN: 2673-8813, visited on 01/12/2024. https://doi.org/10.51685/jqd.2024.003. https://journalqd.org/article/view/4187.

67. Broniatowski, D. A., et al. "Measuring the Monetization Strategies of Websites with Application to Pro- and Anti-Vaccine Communities." *Scientific Reports* 13, no. 1 (Sept. 25, 2023): 15964. ISSN: 2045-2322, visited on 09/26/2023. https://doi.org/10.1038/s41598-023-43061-6. https://www.nature.com/articles/s41598-023-43061-6.

66. Broniatowski, D. A., et al. "The Efficacy of Facebook's Vaccine Misinformation Policies and Architecture during the COVID-19 Pandemic." *Science Advances* 9, no. 37 (Sept. 15, 2023): eadh2132. ISSN: 2375-2548, visited on 09/18/2023. https://doi.org/10.1126/sciadv.adh2132. https://www.science.org/doi/10.1126/sciadv.adh2132.

65. Gabriel, N. A., D. A. Broniatowski, and N. F. Johnson. "Inductive Detection of Influence Operations via Graph Learning." *Scientific Reports* 13, no. 1 (Dec. 19, 2023): 22571. ISSN: 2045-2322, visited on 12/25/2023. https://doi.org/10.1038/s41598-023-49676-z. https://www.nature.com/articles/s41598-023-49676-z.

64. Koban, D., et al. "Trust in Public Health Institutions Moderates the Effectiveness of COVID-19 Vaccine Discussion Groups on Facebook." *Journal of Communication in Healthcare* (Nov. 20, 2023): 1–10. ISSN: 1753-8068, 1753-8076, visited on 12/05/2023. https://doi.org/10.1080/17538068.2023.2283308. https://www.tandfonline.com/doi/full/10.1080/17538068.2023.2283308.

63. Zhao, L., et al. "Using Conjoint Analysis to Incorporate Heterogeneous Preferences into Multimodal Transit Trip Simulations." *Systems Engineering* 26, no. 4 (July 2023): 438–448. ISSN: 1520-6858, visited on 07/02/2023. https://doi.org/10.1002/sys.21670. https://onlinelibrary.wiley.com/doi/abs/10.1002/sys.21670.

62. Zhong, W., and D. A. Broniatowski. "Economic Risk Framing Increases Intention to Vaccinate among Republican COVID-19 Vaccine Refusers." *Social Science & Medicine* 317 (Jan. 1, 2023): 115594. ISSN: 0277-9536, visited on 12/11/2022. https://doi.org/10.1016/j.socscimed.2022.115594. https://www.sciencedirect.com/science/article/pii/S0277953622009005.

61. Abroms, L., et al. "Anticipating IQOS Market Expansion in the United States." *Tobacco Prevention & Cessation* 8 (January Jan. 28, 2022): 1–4. ISSN: 2459-3087, visited on 02/01/2022. https://doi.org/10.18332/tpc/144650. http://www.tobaccopreventioncessation.com/Anticipating-IQOS-market-expansion-in-the-United-States,144650,0,2.html.

60. Broniatowski, D. A., et al. "Twitter and Facebook Posts about COVID-19 Are Less Likely to Spread Misinformation Compared to Other Health Topics." Ed. by B. Guidi. *PLOS ONE* 17, no. 1 (Jan. 12, 2022): e0261768. ISSN: 1932-6203, visited on 01/12/2022. https://doi.org/10.1371/journal.pone.0261768. https://dx.plos.org/10.1371/journal.pone.0261768.

59. Evans, W. D., et al. "Digital Media for Behavior Change: Review of an Emerging Field of Study." *International Journal of Environmental Research and Public Health* 19, no. 15 (15 Jan. 2022): 9129. ISSN: 1660-4601, visited on 07/26/2022. https://doi.org/10.3390/ijerph19159129. https://www.mdpi.com/1660-4601/19/15/9129.

58. Gu, J., et al. "An Investigation of Influential Users in the Promotion and Marketing of Heated Tobacco Products on Instagram: A Social Network Analysis." *International Journal of Environmental Research and Public Health* 19, no. 3 (3 Jan. 2022): 1686. ISSN: 1660-4601, visited on 02/01/2022. https://doi.org/10.3390/ijerph19031686. https://www.mdpi.com/1660-4601/19/3/1686.

57. Gu, J., et al. "The Impact of Facebook's Vaccine Misinformation Policy on User Endorsements of Vaccine Content: An Interrupted Time Series Analysis." *Vaccine* 40, no. 14 (Mar. 25, 2022): 2209–2214. ISSN: 0264-410X, visited on 03/23/2022. https://doi.org/10.1016/j.vaccine.2022.02.062. https://www.sciencedirect.com/science/article/pii/S0264410X22002092.

56. Marti, D., R. F. Hamdy, and D. A. Broniatowski. "Gist Representations and Decision-Making Processes Affecting Antibiotic Prescribing for Children with Acute Otitis Media." *MDM Policy & Practice* 7, no. 2 (July 2022): 238146832211154. ISSN: 2381-4683, 2381-4683, visited on 02/08/2023. https://doi.org/10.1177/23814683221115416. http://journals.sagepub.com/doi/10.1177/23814683221115416.

55. Szajnfarber, Z., et al. "Evolvability Analysis Framework: Adding Transition Path and Stakeholder Diversity to Infrastructure Planning." *Systems Engineering* 25, no. 1 (Jan. 2022): 35–50. ISSN: 1520-6858, visited on 02/03/2022. https://doi.org/10.1002/sys.21600. https://onlinelibrary.wiley.com/doi/abs/10.1002/sys.21600.

54. Ayers, J. W., et al. "Spread of Misinformation About Face Masks and COVID-19 by Automated Software on Facebook." *JAMA Internal Medicine* (June 7, 2021). ISSN: 2168-6106, visited on 06/07/2021. https://doi.org/10.1001/jamainternmed.2021.2498. https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2780748.

53. Berg, C. J., et al. "IQOS Marketing Strategies in the USA before and after US FDA Modified Risk Tobacco Product Authorisation." *Tobacco Control* (Oct. 19, 2021). ISSN: 0964-4563, 1468-3318, visited on 12/05/2021. https://doi.org/10.1136/tobaccocontrol-2021-056819. PMID: 34667105. https://tobaccocontrol.bmj.com/content/early/2021/10/19/tobaccocontrol-2021-056819.

52. Broniatowski, D. A., M. Dredze, and J. W. Ayers. ""First Do No Harm": Effective Communication About COVID-19 Vaccines." *American Journal of Public Health* 111, no. 6 (June 2021): 1055–1057. ISSN: 1541-0048. https://doi.org/10.2105/AJPH.2021.306288. PMID: 33950727.

51. Fraenkel, L., et al. "OPEX: Development of a Novel Overall Patient Experience Measure to Facilitate Interpretation of Comparison Effectiveness Studies." Ed. by B. Mortazavi. *PLOS ONE* 16, no. 1 (Jan. 29, 2021): e0245598. ISSN: 1932-6203, visited on 01/29/2021. https://doi.org/10.1371/journal.pone.0245598. https://dx.plos.org/10.1371/journal.pone.0245598.

50. Hu, D., et al. "Questioning the Yelp Effect: Mixed Methods Analysis of Web-Based Reviews of Urgent Cares." *Journal of Medical Internet Research* 23, no. 10 (Oct. 8, 2021): e29406. ISSN: 1438-8871, visited on 10/10/2021. https://doi.org/10.2196/29406. https://www.jmir.org/2021/10/e29406.

49. Larson, H. J., and D. A. Broniatowski. "Volatility of Vaccine Confidence." *Science* 371, no. 6536 (Mar. 26, 2021): 1289–1289. ISSN: 0036-8075, 1095-9203, visited on 03/25/2021. https://doi.org/10.1126/science.abi6488. https://www.sciencemag.org/lookup/doi/10.1126/science.abi6488.

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47. Reyna, V. F., D. A. Broniatowski, and S. M. Edelson. "Viruses, Vaccines, and COVID-19: Explaining and Improving Risky Decision-making." *Journal of Applied Research in Memory and Cognition* 10, no. 4 (Dec. 2021): 491–509. ISSN: 22113681, visited on 12/13/2021. https://doi.org/10.1016/j.jarmac.2021.08.004. https://linkinghub.elsevier.com/retrieve/pii/S2211368121000772.

46. Reyna, V. F., S. M. Edelson, and D. A. Broniatowski. "Misconceptions, Misinformation, and Moving Forward in Theories of COVID-19 Risky Behaviors." *Journal of Applied Research in Memory and Cognition* 10, no. 4 (Dec. 2021): 537–541. ISSN: 22113681, visited on 12/13/2021. https://doi.org/10.1016/j.jarmac.2021.11.003. https://linkinghub.elsevier.com/retrieve/pii/S2211368121001091.

45. Wang, X. R., et al. "Emotion and Virality of Food Safety Risk Communication Messages on Social Media." *Journal of Applied Communications* 105, no. 3 (Sept. 9, 2021). ISSN: 1051-0834, visited on 09/13/2021. https://doi.org/10.4148/1051-0834.2391. https://newprairiepress.org/jac/vol105/iss3/5.

44. Broniatowski, D. A., and V. F. Reyna. "To Illuminate and Motivate: A Fuzzy-Trace Model of the Spread of Information Online." *Computational and Mathematical Organization Theory* 26, no. 4 (Dec. 2020): 431–464. ISSN: 1381-298X, 1572-9346, visited on 11/23/2020. https://doi.org/10.1007/s10588-019-09297-2. http://link.springer.com/10.1007/s10588-019-09297-2.

43. Broniatowski, D. A., et al. "Facebook Pages, the "Disneyland" Measles Outbreak, and Promotion of Vaccine Refusal as a Civil Right, 2009–2019." *American Journal of Public Health* 110, no. S3 (Oct. 1, 2020): S312–S318. ISSN: 0090-0036, visited on 10/01/2020. https://doi.org/10.2105/AJPH.2020.305869. https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2020.305869.

42. Broniatowski, D. A., et al. "Vaccine Communication as Weaponized Identity Politics." *American Journal of Public Health* 110, no. 5 (Apr. 8, 2020): 617–618. ISSN: 0090-0036, visited on 04/14/2020. https://doi.org/10.2105/AJPH.2020.305616. https://ajph.aphapublications.org/doi/10.2105/AJPH.2020.305616.

41. Broniatowski, M., et al. "Selective Stimulation of Human Intrinsic Laryngeal Muscles: Analysis in a Mathematical Three-dimensional Space." *The Laryngoscope* 130, no. 4 (Apr. 2020): 967–973. ISSN: 0023-852X, 1531-4995, visited on 03/19/2020. https://doi.org/10.1002/lary.28184. https://onlinelibrary.wiley.com/doi/abs/10.1002/lary.28184.

40. Hu, D., et al. "Chinese Social Media Suggest Decreased Vaccine Acceptance in China: An Observational Study on Weibo Following the 2018 Changchun Changsheng Vaccine Incident." *Vaccine* 38, no. 13 (Mar. 17, 2020): 2764–2770. ISSN: 0264-410X, visited on 03/04/2020. https://doi.org/10.1016/j.vaccine.2020.02.027. http://www.sciencedirect.com/science/article/pii/S0264410X20302243.

39. Jamison, A., et al. "Adapting and Extending a Typology to Identify Vaccine Misinformation on Twitter." *American Journal of Public Health* 110, no. S3 (Oct. 1, 2020): S331–S339. ISSN: 0090-0036, visited on 10/01/2020. https://doi.org/10.2105/AJPH.2020.305940. https://ajph.aphapublications.org/doi/10.2105/AJPH.2020.305940.

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36. Marti, D., and D. A. Broniatowski. "Does Gist Drive NASA Experts' Design Decisions?" *Systems Engineering* (June 4, 2020). ISSN: 10981241, visited on 06/05/2020. https://doi.org/10.1002/sys.21538. http://doi.wiley.com/10.1002/sys.21538.

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34. Xu, P., M. Dredze, and D. A. Broniatowski. "The Twitter Social Mobility Index: Measuring Social Distancing Practices With Geolocated Tweets." *Journal of Medical Internet Research* 22, no. 12 (Dec. 3, 2020): e21499. ISSN: 1438-8871, visited on 12/03/2020. https://doi.org/10.2196/21499. https://www.jmir.org/2020/12/e21499.

33. Broniatowski, D. A. "Communicating Meaning in the Intelligence Enterprise." *Policy Insights from the Behavioral and Brain Sciences* (Mar. 8, 2019). Visited on 03/08/2019. https://doi.org/10.1177/2372732218792061. http://journals.sagepub.com/doi/10.1177/2372732218792061.

32. Huang, X., et al. "Can Online Self-Reports Assist in Real-Time Identification of Influenza Vaccination Uptake? A Cross-Sectional Study of Influenza Vaccine-Related Tweets in the USA, 2013–2017." *BMJ Open* 9, no. 1 (Jan. 2019): e024018. ISSN: 2044-6055, 2044-6055, visited on 01/16/2019. https://doi.org/10.1136/bmjopen-2018-024018. http://bmjopen.bmj.com/lookup/doi/10.1136/bmjopen-2018-024018.

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30. Lama, Y., et al. "Characterizing Trends in Human Papillomavirus Vaccine Discourse on Reddit (2007-2015): An Observational Study." *JMIR Public Health and Surveillance* 5, no. 1 (Mar. 18, 2019): e12480. Visited on 05/01/2019. https://doi.org/10.2196/12480. https://publichealth.jmir.org/2019/1/e12480/.

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13. Broniatowski, D. A., and C. L. Magee. "Analysis of Social Dynamics on FDA Panels Using Social Networks Extracted from Meeting Transcripts." In *Social Computing (SocialCom), 2010 IEEE Second International Conference On*, 329–334. IEEE, 2010. Visited on 01/18/2015. http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5591237.

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Peer-Reviewed Posters and Talks

60. Vaynman, A., V. F. Reyna, and D. A. Broniatowski. "Examining Plea Bargaining Through Fuzzy Trace Theory: Effects of Framing and Trust." American Psychology Law Society Conference 2026, Reno, Nevada, Mar. 12–14, 2026.

59. Broniatowski, D. A. "Explaining and Evaluating Human and Al Choices, with Clinical Illustrations." 53rd Annual Applied Imagery Pattern Recognition (AIPR) Workshop, Washington, D. C. Oct. 13, 2025.

58. Broniatowski, D. A., and V. F. Reyna. "Evidence for Fuzzy-Trace Theory Over Prospect Theory in Decisions Under Risk." 2025 Annual Summer Interdisciplinary Conference, Saint-Gervais, France, June 24, 2025.

57. Reyna, V. F., et al. "More Gisty than Humans: Comparing Physicians and AI on Decisions to Prescribe Antibiotics." Psychonomic Society 66th Annual Meeting, Denver, CO, United States, Nov. 20–23, 2025.

56. Vaynman, A., V. F. Reyna, and D. Broniatowski. "Plea Bargaining as Risky Decision-Making: Framing Effects and Fuzzy Trace Theory." American Psychological Association (APA) Convention 2025, Division 41 – American Psychology-Law Society, Denver, CO, United States, Aug. 7–9, 2025.

55. Yousefi, A., V. F. Reyna, and D. Broniatowski. "AI Maturation Mirrors Human Developmental Risk-Taking: Framing and Truncation Biases in GPT Models." Psychonomic Society 66th Annual Meeting, Denver, CO, United States, Nov. 20–23, 2025.

54. Shearn, A., et al. "ChatGPT as a Subject for Clinical Scenarios." GW Global Business and Policy Forum, Washington, DC, US, Apr. 2, 2024.

53. Shearn, A., et al. "Evaluating the Explainability and Interpretability of AI Systems." AI4SE/SE4AI, Washington, DC, Feb. 4, 2024.

52. Vaynman, A., D. A. Broniatowski, and V. F. Reyna. "AI Tools in the Criminal Justice System: A Systematic Review." GW Global Business and Policy Forum, Washington, DC, US, Apr. 2, 2024.

51. Broniatowski, D. A. "Using Gist and Epistemic Valence Judgments To Reduce Misinformation Sharing Online." 2023 Annual Meeting of the Psychonomic Society, San Francisco, CA, Nov. 2023.

50. Shearn, A., et al. "Evaluating the Explainability and Interpretability of AI Systems." SE4AI/AI4SE, Washington, DC, Sept. 27, 2023.

49. Abroms, L., et al. "Empathic Engagement with the COVID-19 Vaccine Hesitant in Private Facebook Groups: A Randomized Trial." In *2022 North American Meeting for the Society of Medical Decision Making*. Oct. 2022.

48. Broniatowski, D. A. "Computational Measures of Gist: What Can We Infer from Automated Tools?" SCIP Symposium. Boston, MA, Nov. 17, 2022.

47. Broniatowski, D. A., et al. "Can Machines Summarize the Gist of Social Media Messages about COVID-19?: Automated versus Human Diagnostics of Topic Models." 63rd Annual Meeting of the Psychonomic Society. Boston, MA, Nov. 17, 2022.

46. Broniatowski, D. A., and V. F. Reyna. "Do Automated Coherence Measures Index Gist Extraction?" 62nd Annual Meeting of the Psychonomics Society, Virtual, May 11, 2021.

45. Marti, D., R. Hamdy, and D. Broniatowski. "Experts' Gists Drive Antibiotic Prescription Decisions." In *42nd Annual Meeting of the Society for Medical Decision Making*. SMDM, 2021.

44. — . "Exploring Medical Experts' Numerical Judgment Processes in the Context of Structured Expert Judgment Protocol." In *42nd Annual Meeting of the Society for Medical Decision Making*. SMDM, 2021.

43. Marti, D., D. Broniatowski, and V. Reyna. "A Critical Test of Fuzzy-Trace Theory and Cumulative Prospect Theory: The Fourfold Pattern of Risk Preference." 61st Annual Meeting of the Psychonomics Society, Held virtually, Nov. 20, 2020.

42. Gleaves, L., and D. Broniatowski. "Identifying Burns in Medical Device Reports." SBP-BRIMS 2019, Washington, D.C, July 2019.

41. Gleaves, L., and D. A. Broniatowski. "Examining Expert Uncertainty by Topic Cluster in Medical Device Report Assessment." Scientista, Boston, MA, Spr. 2019.

40. Marti, H. D., and D. A. Broniatowski. "Expertise Transfer at NASA: Technology Policy Implications of Fuzzy Trace Theory." TMP Consortium, Washington, D. C. June 18, 2019.

39. Quinn, S., D. Broniatowski, and M. Krakow. "Thinking Outside the Box: Role of Digital Technology in Addressing Public Health Issues." Arlington, VA, Mar. 21, 2019.

38. Smith, M. C., and S. C. Quinn. "Translating Trust in Vaccines from Surveys to Twitter." APHA's 2019 Annual Meeting and Expo, Philadelphia, PA, May 11, 2019.

37. Wiedemeyer, C., et al. "Applying the Global Patient-Reported Outcome Measure to the Results of a Clinical Trial." 41st Annual Meeting of the Society for Medical Decision Making, Portland, OR, Oct. 20, 2019.

36. Wood-Doughty, Z., D. Broniatowski, and M. Dredze. "Machine Learning Classifiers for Socio-Demographics of Social Media Users: Limitations and Possibilities." APHA's 2019 Annual Meeting and Expo, Philadelphia, PA, May 11, 2019.

35. Broniatowski, D. A., and V. F. Reyna. "Causal Gist Predicts Spread of Tweets about Vaccination." 40th Annual Meeting of the Society for Medical Decision Making, Montréal, Québec, Canada, Oct. 16, 2018.

34. Fraenkel, L., et al. "Development of a Rheumatoid Arthritis Global Outcome Measure to Enable Comparisons of Patient Experiences across Treatment Arms in Randomized Clinical Trials." 2018 ACR/ARHP Annual Meeting, Chicago, IL, Oct. 24, 2018.

33. Hosseini, P., and D. Broniatowski. "Spread of Coherent Stories on Social Media." 2nd North American Social Networks (NASN) Conference, Washington, D.C, Nov. 2018.

32. Marti, H. D., and D. A. Broniatowski. "Exploring the Fourfold Pattern Through the Lens of Fuzzy Trace Theory." Society for Judgment and Decision Making, New Orleans, LA, Nov. 2018.

31. — . "Risk Perception of NASA Engineers: A Fuzzy Trace Theory Approach." Society for Risk Analysis, New Orleans, LA, Mar. 12, 2018.

30. Hu, D., and D. A. Broniatowski. "Exploring the Content of Misinformation from Multiple Perspectives." SBP-BRIMS 2017, Washington, DC, US, July 7, 2017.

29. Kerchner, D., et al. "Collecting and Mining Online Text Data." SBP-BRIMS 2017, Washington, DC, US, May 7, 2017.

28. Marti, H. D., and D. A. Broniatowski. "Risky Micrometeoroid and Orbital Debris(MMOD) Decision-Making at NASA: A Fuzzy-Trace Theory Approach." Industry Studies Association, Washington, DC, May 25, 2017.

27. Walker, K., and D. Broniatowski. "Machine Learning for Text Classification and the Need for Interpretation Research: A Case Study at the FDA." Industry Studies Association, Washington, DC, May 25, 2017.

26. Broniatowski, D. A. "Categorical Risk Perception: Combining Expertise and Analysis." Meeting of the Special Interest Group on Design Theory of the International Design Society, Paris, France, Feb. 2016.

25. Broniatowski, D. A., and C. S. Tucker. "The Role of Big Data and Associated Theory in Complex Engineered Systems." 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.

24. Broniatowski, D. A., et al. "Both Mirror and Complement: A Comparison of Social Media Data and Survey Data about Flu Vaccination." APHA 2016 Annual Meeting & Expo, Denver, CO, Nov. 2016.

23. Broniatowski, D. A. "Systems Architecture, Risk Perception, and Design Worldviews." Meeting of the Special Interest Group on Design Theory of the International Design Society, Paris, France, Feb. 2016.

22. Hu, D., and D. A. Broniatowski. "Designing a Crowdsourcing Tool to Understand the Spread of Online Rumors Using Causal Narrative Networks." 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.

21. Klein, E. Y., et al. "Categorical Risk Perception Drives Variability in Clinician Antibiotic Prescribing in the Acute-Care Setting." IDWeek 2016, New Orleans, LA, Oct. 29, 2016.

20. Marti, H. D., and D. A. Broniatowski. "Improving Expert Decision Making Processes on High Impact Low Probability Events." IIE Annual Conference and Expo, Industrial and Systems Engineering Research Sessions (ISERC), Anaheim, CA, May 2016.

19. — . "Measuring Emotional Dimensions on Twitter: A Case Study in Tracking Fear of the Flu." 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.

18. Park, J. H., and D. A. Broniatowski. "Cultural Worldviews of Technical Expert Committee for the Aerospace Industry." 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.

17. Paul, M. J., et al. "Analyzing Demographic Patterns of Vaccine Beliefs and Behaviors in Social Media." Text as Data, Northeastern University, Boston, MA, 2016.

16. Smith, M. C., and D. A. Broniatowski. "Using Twitter to Examine Social Rationales for Vaccine Refusal." 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.

15. Walker, K., and D. A. Broniatowski. "Worldviews of the Medical Device Community." 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.

14. Broniatowski, D. A., K. M. Hilyard, and M. Dredze. "News Articles Are More Likely to Be Shared If They Combine Statistics with Explanation." 37th Annual Meeting of the Society for Medical Decision Making, St. Louis, MO, Oct. 21, 2015.

13. Broniatowski, D. A., et al. ""Why Not Take a Risk?" Explains Subjects'expectations for Antibiotics and Prior Prescribing in a Large Online Sample." 37th Annual Meeting of the Society for Medical Decision Making, St. Louis, MO, Oct. 20, 2015.

12. Broniatowski, D. A. "In Systems Risk Assessment, The Better Is the Enemy of the Good." IIE Annual Conference, Nashville, TN, July 2015.

11. — . "Systems Risk Assessment: The Better Is the Enemy of the Good." IIE Annual Conference and Expo, Industrial and Systems Engineering Research Sessions (ISERC), Nashville, TN, May 2015.

10. Broniatowski, D. A., and V. F. Reyna. "Accounting for Age and Cultural Differences Using a Fuzzy-Trace Theory Model of Representation, Need for Cognition, and Risk Propensity." Judgment and Decision Making Conference, Palo Alto, CA, 2015.

9. Smith, M. C., et al. "Tracking Public Awareness of Influenza through Twitter." 3rd International Conference on Digital Disease Detection (DDD), Florence, Italy, May 2015.
8. Broniatowski, D. A., E. Y. Klein, and V. F. Reyna. "Germs Are Germs and Why Not Take a Risk?: Patients' Expectations for Prescribing Antibiotics in an Inner City Emergency Department." 36th Annual Meeting of the Society for Medical Decision Making Conference, Miami, FL, 2014.
7. Broniatowski, D. A., and V. F. Reyna. "A Mathematical Theory of Qualitative Decision-Making." Advances in Decision Analysis Conference, Washington, DC, 2014.
6. Paul, M. J., M. Dredze, and D. A. Broniatowski. "Challenges in Influenza Forecasting and Opportunities for Social Media." AAAI Workshop on the World Wide Web and Public Health Intelligence, 2014.
5. Broniatowski, D. A., and V. F. Reyna. "A Mathematical Theory of Qualitative Decision-Making." Judgment and Decision Making Conference, Toronto, ON, 2013.
4. Broniatowski, D. A., et al. "A Tutorial on Bot-Like Behavior on Twitter." SBP-BRIMS 2018, Washington, DC, July 10, 18.
3. Fraenkel, L., et al. "Classifying Adverse Events from the Patient's Point of View: A Trajectory Mapping Study." 40th Annual Meeting of the Society for Medical Decision Making, Montréal, Québec, Canada, Oct. 16, 18.
2. Zhou, Y., et al. "Gab.Ai: The Alt-Right and Social Media." Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL), Linthicum Heights, MD, May 12, 18.
1. Broniatowski, David A. and Reyna, V. F. "Qualitative Decision-making Under Uncertainty: A Formal Model of Fuzzy-trace Theory." Annual Meeting of the Psychonomic Society, Boston, MA, Nov. 18, 16.

Invited Talks

3.6.1 Academia

9. Broniatowski, D. "Explaining and Evaluating Human and Al Choices, with Clinical Illustrations." 53rd Annual Applied Imagery Pattern Recognition (AIPR) Workshop, Washington, D. C. Oct. 13, 2025.
8. Broniatowski, D. A. "Interpretation, Abstraction, and Intersubjectivity in Big Data." GW Data-Driven Discovery Symposium, Washington, D.C, Mar. 2018.
7. Broniatowski, D. A. "Communication Strategies for Behavior Change on Social Media." Faculty Salon on Social Media Research, Washington, DC, Mar. 28, 2017.
6. — . "Communication Strategies for Behavior Change on Social Media." George Washington University Science and Engineering Hall WoWTalks Series, Washington, DC, US, Feb. 21, 2017.
5. — . "Detecting Rationales for Vaccine Refusal." SEAS-1001 Class at The George Washington University, Washington, DC, US, Jan. 12, 2017.
4. — . "Communication Strategies for Behavior Change on Social Media." OVPR Training & Development Session, Washington, DC, US, Mar. 29, 2017.
3. — . "Detecting Rationales for Vaccine Refusal." Innovative Health "Get Together", Washington, D.C, Nov. 2016.
2. — . "Two Synergistic Strategies for Coping with Complexity in Engineered Systems." Complex Adaptive Systems, Redondo Beach, CA, Feb. 11, 2016.

1. Broniatowski, D. A. "Why You Can't Predict Influenza from Twitter and Here's How." Modeling Infectious Diseases Agent Study (MIDAS) Conference, Austin, TX, June 2013.

3.6.2 Government

6. Broniatowski, D. A. "So You Want to Be a Scholar." SEANET Doctoral Consortium Associated with the Conference on Systems Engineering Research, Arlington, VA, Apr. 2, 2019.
5. — . "Social Media & Vaccines: From Disease to Disinformation." National Foundation for Infectious Diseases Annual Conference on Vaccinology Research, Baltimore, MD, Apr. 2019.
4. Broniatowski, D. A. "Navigating Social Media: Trolls, Bots & Misinformation." 2019 Annual Meeting of the Association of Schools and Programs of Public Health, Arlington, VA, Mar. 21, 2019.
3. Broniatowski, D. A. "Surveys, Laboratory Experiments, and Social Media: Better Together." National Academies of Science Board on Social and Behavioral Sciences for National Security: A Decadal Survey Workshop on Culture, Language, and Behavior, Washington, DC, Nov. 10, 2017.
2. Broniatowski, D. A. "Communication Strategies for Behavior Change on Social Media." Council on Engineering Systems Universities Annual Meeting, Dartmouth, NH, Mar. 21, 2017.
1. — . "Communication Strategies for Behavior Change on Social Media." National Academies of Science Summit on Social and Behavioral Sciences for National Security, Washington, DC, US, May 10, 2016.

3.6.3 Industry

5. Broniatowski, D. "Hidden Agendas for Online Vaccination: Trolls, Bots & Misinformation." Digital Health Promotion Executive Leadership Summit, Washington, D.C, Apr. 6, 2019.
4. Broniatowski, D. A. "Weaponized Health Communication: Twitter Bots and Russian Trolls Amplify the Vaccine Debate." eMerge Americas 2019, Miami, FL, Apr. 29, 2019.
3. Broniatowski, D. "From Disease to Disinformation." Digital Health Promotion Summit, Washington, D.C, June 6, 2018.
2. Broniatowski, D. A. "MITRE SE Platform – Academic / Research Community Workshop." MITRE SE Platform – Academic / Research Community Workshop, McLean, VA, Jan. 16, 2018.
1. — . "Effective Vaccine Communication during the Disneyland Measles Outbreak." Engaging Narratives, Washington, DC, US, May 24, 2017.

3.6.4 Professional Societies

6. Broniatowski, D. A. "So You Want to Be a Scholar." SEANET Doctoral Consortium Associated with the Conference on Systems Engineering Research, Arlington, VA, Apr. 2, 2019.
5. — . "Social Media & Vaccines: From Disease to Disinformation." National Foundation for Infectious Diseases Annual Conference on Vaccinology Research, Baltimore, MD, Apr. 2019.
4. Broniatowski, D. A. "Navigating Social Media: Trolls, Bots & Misinformation." 2019 Annual Meeting of the Association of Schools and Programs of Public Health, Arlington, VA, Mar. 21, 2019.

3. Broniatowski, D. A. "Surveys, Laboratory Experiments, and Social Media: Better Together." National Academies of Science Board on Social and Behavioral Sciences for National Security: A Decadal Survey Workshop on Culture, Language, and Behavior, Washington, DC, Nov. 10, 2017.

2. Broniatowski, D. A. "Communication Strategies for Behavior Change on Social Media." Council on Engineering Systems Universities Annual Meeting, Dartmouth, NH, Mar. 21, 2017.

1. — . "Communication Strategies for Behavior Change on Social Media." National Academies of Science Summit on Social and Behavioral Sciences for National Security, Washington, DC, US, May 10, 2016.

Citations in Policy Documents

24. Bliss, K. E., J. S. Morrison, and H. J. Larson. "Why Vaccine Confidence Matters to National Security" (Fri, 05/07/2021 - 12:00). Visited on 06/12/2023. https://www.csis.org/analysis/why-vaccine-confidence-matters-national-security.

23. Zembilci, E., et al. "New Perspectives in Foreign Policy Issue 18" (Tue, 10/01/2019 - 12:00). Visited on 06/12/2023. https://www.csis.org/analysis/new-perspectives-foreign-policy-issue-18.

22. "AI and the Future of Disinformation Campaigns." Center for Security and Emerging Technology. Visited on 06/12/2023. https://cset.georgetown.edu/publication/ai-and-the-future-of-disinformation-campaigns/.

21. "CDEI Review of Online Targeting." GOV.UK. Visited on 06/12/2023. https://www.gov.uk/government/publications/cdei-review-of-online-targeting.

20. "Health Communication Science Digest Searchable Archive." Visited on 06/12/2023. https://stacks.cdc.gov/view/cdc/60890.

19. "Health Communication Science Digest Searchable Archive." Visited on 06/12/2023. https://stacks.cdc.gov/view/cdc/81586.

18. "Mapping Online Advertising Issues, and the Industry and Regulatory Initiatives Aimed at Addressing Them." GOV.UK. Visited on 06/12/2023. https://www.gov.uk/government/publications/mapping-online-advertising-issues-and-the-industry-and-regulatory-initiatives-aimed-at-addressing-them.

17. "Science and Health Misinformation in the Digital Age." Public Policy Forum. Visited on 06/12/2023. https://ppforum.ca/publications/science-and-health-misinformation-in-the-digital-age/.

16. "The State's Weakened Immunity. The Causes of the Measles Outbreak in Ukraine." OSW Centre for Eastern Studies. Visited on 06/12/2023. https://www.osw.waw.pl/en/publikacje/osw-commentary/2020-01-30/states-weakened-immunity-causes-measles-outbreak-ukraine.

15. Lai, S., et al. *Measuring Changes Caused by Generative Artificial Intelligence: Setting the Foundations*. Research Report. Contributor: David A. Broniatowski. Carnegie Endowment for International Peace, Jan. 9, 2025. https://carnegieendowment.org/research/2025/01/measuring-changes-caused-by-generative-artificial-intelligence-setting-the-foundations?lang=en.

14. National Academies of Sciences, Engineering, and Medicine. *Understanding and Addressing Misinformation About Science*. Ed. by K. Viswanath, T. E. Taylor, and H. G. Rhodes. Committee Member: David A. Broniatowski. Washington, DC: The National Academies Press, 2025. https://doi.org/10.17226/27894.

13. Internal Policies of the Union (European Parliament), D.-G. for, B. Botero Arcila, and R. Griffin. *Social Media Platforms and Challenges for Democracy, Rule of Law and Fundamental Rights*. LU: Publications Office of the European Union, 2023. ISBN: 978-92-848-0386-6, visited on 06/12/2023. https://data.europa.eu/doi/10.2861/672578.

12. Commission), J. R. C. (, et al. *Covid-19 Misinformation: Preparing for Future Crises : An Overview of the Early Behavioural Sciences Literature*. LU: Publications Office of the European Union, 2022. ISBN: 978-92-76-54519-4, visited on 06/12/2023. https://data.europa.eu/doi/10.2760/41905.

11. Commission), J. R. C. (, et al. *Data Innovation in Demography, Migration and Human Mobility*. LU: Publications Office of the European Union, 2022. ISBN: 978-92-76-44518-0, visited on 06/12/2023. https://data.europa.eu/doi/10.2760/027157.

10. Van Der Weide, R. "Inferring COVID-19 Vaccine Attitudes from Twitter Data" (Sept. 2022). Visited on 06/12/2023. https://doi.org/10.1596/1813-9450-10165. HDL: 10986/37970. http://hdl.handle.net/10986/37970.

9. Disease Prevention and Control (EU body or agency), E. C. for, et al. *Countering Online Vaccine Misinformation in the EU/EEA*. LU: Publications Office of the European Union, 2021. ISBN: 978-92-9498-542-2, visited on 06/12/2023. https://data.europa.eu/doi/10.2900/329304.

8. Marcellino, W., et al. *Detecting Conspiracy Theories on Social Media: Improving Machine Learning to Detect and Understand Online Conspiracy Theories*. RAND Corporation, Apr. 29, 2021. Visited on 06/12/2023. https://www.rand.org/pubs/research_reports/RRA676-1.html.

7. World Health Organization. *Young People and COVID-19: Behavioural Considerations for Promoting Safe Behaviours: Policy Brief*. World Health Organization, 2021. ISBN: 978-92-4-002831-9, visited on 06/12/2023. https://apps.who.int/iris/handle/10665/341695.

6. Allen, S., et al. "Design Choices for Central Bank Digital Currency: Policy and Technical Considerations." Pre-published, Aug. 2020. Working Paper. Visited on 06/12/2023. https://doi.org/10.3386/w27634. National Bureau of Economic Research: 27634. https://www.nber.org/papers/w27634.

5. European Observatory on Health Systems and Policies. "Eurohealth: a healthy dose of disruption? Transformative change for health and societal well-being." *Eurohealth* 25, no. 3 (2019). ISSN: 1356-1030, visited on 06/12/2023. https://apps.who.int/iris/handle/10665/327753.

4. European Observatory on Health Systems and Policies et al. "Facts. Figures! Fiction?" *Eurohealth* 25, no. 3 (2019): 19–22. ISSN: 1356-1030, visited on 06/12/2023. https://apps.who.int/iris/handle/10665/332510.

3. Noveck, B. S. "Smarter Crowdsourcing for Zika and Other Mosquito-Borne Diseases: A Handbook of Innovative Legal, Technical, and Policy Proposals and a Guide to Their Implementation" (Sept. 15, 2017). Visited on 06/12/2023. https://doi.org/10.18235/0000820. https://publications.iadb.org/en/smarter-crowdsourcing-zika-and-other-mosquito-borne-diseases-handbook-innovative-legal-technical.

2. Forum on Microbial Threats et al., collab. *Building Communication Capacity to Counter Infectious Disease Threats: Proceedings of a Workshop*. Ed. by V. A. Ogawa, C. Mundaca-Shah, and J. Alper. Washington, D.C.: National Academies Press, June 14, 2017. ISBN: 978-0-309-45768-2, visited on 06/12/2023. https://doi.org/10.17226/24738. https://www.nap.edu/catalog/24738.

1. Canada, P. H. A. of. “Canada Communicable Disease Report (CCDR), CCDR 49,” Jan. 1, 1997. Navigation page;research. Visited on 06/12/2023. https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr.html.

Proposals Awarded — External Funding

Title	Source	Role	Amount administered	Time Period
NSF Institute for Trustworthy AI in Law and Society (TRAILS)	National Science Foundation	GW Site PI (PI: Hal Daumé III – UMD)	$8,149,999	06/01/2023–05/31/2028
PREP Gaithersburg: GW–PREP	National Institute of Standards and Technology	PI	$29,943,029	04/01/2023–03/30/2028
NSF Convergence Accelerator Track F: Expert Voices Together: Building Trust in Communication Systems by Addressing Online Abuse and Harassment	National Science Foundation	Co–Investigator	$2,691,396	09/15/2022–08/31/2024
Evaluating the Explainability and Interpretability of AI Systems	National Institute of Standards and Technology	PI	$994,325	09/01/2022–08/30/2024
NRT–AI–FTW: Co–Design of Trustworthy AI and Work Systems	National Science Foundation	Co–Investigator	$3,000,000	01/01/2022–12/31/2028
NSF Convergence Accelerator Track F: Building Trust in Communication Systems by Addressing Misinformation–Driven Online Abuse and Harassment	National Science Foundation	Co–PI	$749,222	10/01/2021–09/30/2023
Testing Different Messages for COVID–19 Vaccine Intentions	US COVID Response	GW Site PI (PI: Susannah Paletz, UMD ARLIS)	$88,000	06/09/2021–06/08/2022
Total War: Multi–Agent Network Theory of Connective Action in a Cross–Domain Coupled World	Air Force Office of Scientific Research	Co–PI (PI: N. F. Johnson)	$1,860,543 ($111,192 at SEAS)	09/01/2020–08/31/2023
RAPID: Automated Extraction and Validation of the Gist of Social Media Messages about COVID–19	National Science Foundation	GW Site PI (PI: Valerie F. Reyna)	$99,985	07/01/2020–06/30/2023

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Title	Source	Role	Amount administered	Time Period
Collaborative Research: RAPID: Behavioral Epidemic Modeling for COVID–19 Containment	National Science Foundation	GW Site PI (PI: J. M. Epstein)	$34,001	06/01/2020–05/31/2022
Identifying Best Practices to Correct Misinformation on Facebook	Social Science Research Council	Co–PI (PI: Ethan Porter)	$25,000	01/01/2020–12/31/2020
Evolvability for Mobility Systems	Toyota Mobility Foundation	Co–PI (PI: Z. Szajnfarber)	$430,000	07/01/2019–06/30/2021
Institute for Data, Democracy, and Politics	John S. and James L. Knight Foundation	Co–I (PI: R. Tromble)	$5,000,000 ($214,134 at SEAS)	06/01/2019–05/31/2024
DARPA D3M Program, DARPA–BAA–16–43	DARPA via Parenthetic, LLC	GW Site PI (PI: Reva Schwartz, Parenthetic, LLC)	$137,205	06/01/2018–12/31/2020
Development of a Global Outcome Measure for Rheumatoid Arthritis Clinical Trials, FY2018 Innovative Research Award	Rheumatology Research Foundation	GW Site PI (PI: Liana Frankel, Yale University; total grant amount: $387,615)	$137,550	07/01/2017–06/30/2019
Supplementing Survey–Based Analyses of Group Vaccination Narratives and Behaviors Using Social Media, PAR–13–374, 5R01GM11477	National Institutes of Health, National Institute of General Medical Sciences	PI (with Sandra C. Quinn, University of Maryland; GW is primary granting institution)	$1,554,832	02/01/2015–01/31/2020
		Total External Funding:	**$54,895,087**	
		Total Funding as PI, Site PI, or SEAS Lead:	**$41,489,432**	

Internal Funding

Title	Source	Role	Amount to SEAS	Time Period
Improving Antibiotic Stewardship: The Role of Communication in Patient Expectations and Attitudes	GW Cross–Disciplinary Research Fund	Co–PI (PI: Monique Turner, MSPH)	$23,500	07/01/2018–06/30/2019
		Total Internal Funding:	**$23,500**	

Honors and Distinctions

- Appointment to the National Academies Study Committee on Science Misinformation, 2023–2024.

- 2019 APHA Best Paper award for "Weaponized health communication: Twitter bots and Russian trolls amplify the vaccine debate."
- Featured in Altmetric Top 100 for "Weaponized health communication: Twitter bots and Russian trolls amplify the vaccine debate."
- "Building the Tower Without Climbing It: Progress in Engineering Systems" selected by INCOSE among the best papers published in *Systems Engineering* (2018).
- Outstanding Junior Researcher Award, 2019, GW SEAS.
- Nominated Fellow, Psychonomic Society, Fall 2018.
- 2019 Foundation for the Advancement of Health Education (FAHE) Ann E. Nolte Writing Award for "Weaponized health communication: Twitter bots and Russian trolls amplify the vaccine debate."
- Top Reviewer (Multidisciplinary), Publons.com, September 2017.
- Session Chair, 38th Annual Conference of the Cognitive Science Society (CogSci 2016), Philadelphia, PA, August 2016.
- Plenary Panel Moderator, "Systems Architecture and Complexity," 5th International Engineering Systems Symposium (CESUN 2016), Washington, DC, June 2016.
- Session Chair, "Systems Architecture and Complexity," CESUN 2016, Washington, DC, June 2016.
- Session Chair, "Design for Flexibility," IIE Annual Conference and Expo (ISERC), Anaheim, CA, May 21–24, 2016.
- Invited Participant, National Science Foundation Circle of Design Conference, Clemson, SC, Nov 14–16, 2015.
- Invited Participant, Computing Community Consortium (CCC) Catalyst Workshop "Uncertainty in Computation," Washington, DC, Oct 15–16, 2014.
- Session Chair, "Decision Making I," 36th Annual Conference of the Cognitive Science Society (CogSci 2014), Quebec City, QC, July 23, 2014.
- Session Chair, "Foundations of Complex Engineering Systems," 4th International Engineering Systems Symposium (CESUN 2014), Hoboken, NJ, June 9, 2014.
- Arthur and Linda Gelb Graduate Fellowship, 2004.
- Barry Shapiro Travel Scholarship, 2004.

Professional Affiliations

- Member, Bright Institute, SPH.
- Associate Director, Institute for Data, Democracy, and Politics (IDDP), GW, 2019–Present.
- Charter Member, Data Science Institute, 2017–Present.
- Member, Cross-cutting Institute on Photonics & AI (SEAS, CCAS, GWSB).
- Member, Center for Intelligent Systems Research, GW SEAS, 2016–Present.
- Member, XD@GW, Cross-Disciplinary Collaboration Initiative, 2015–Present.
- Member, Center for Risk Science and Public Health, GW SPH, 2015–Present.
- Member, mHealth Collaborative, GW Mobile Health Working Group, 2014–Present.

Ph.D. Theses Directed and Completed

Title	Student Name	Year	Department
Empathic Engagement with the Vaccine Hesitant in Online Spaces	D. Koban	S2023	EMSE
Advancing Identification of Causal Relations in Natural Language	P. Hosseini	Summer 2022	CS
Rapidly Testing Policymakers' Assumptions Using Social Media: A Systematic Approach Applied to Public Health	D. Hu	S2022	EMSE
Investigating Expertise Transfer and Experts' Cognitive Decision-making Processes in Socio-technical Systems	H. Deniz Marti	S2020	EMSE
Validating Public Perception Surveys of Engineering Systems with Social Media	Michael C. Smith	F2019	EMSE

M.S. Theses Directed and Completed

Title	Student Name	Year	Department
Feature Based Approach: A Multiclass Classifier for Twitter Bots	Lulwah Al–Kulaib	2018	Computer Science

Postdoctoral Associates Advised

Postdoc Name	Year	Department
Mohammad Hammas Saeed	2024–2026	ECE
Anna Vaynman	2023–2025	EMSE
Wei Zhong	2021–2023	EMSE
Armin Vosoughi	2023–2024	EMSE

Personnel Advised — Doctoral

Student	Department	Graduation Date	Thesis?	PT/FT
Michael C. Smith	EMSE	Dec 2019	Yes	FT
Hazan Deniz Marti	EMSE	Aug 2020	Yes	FT
Dian Hu	EMSE	May 2022	Yes	FT
Pedram Hosseini	CS	Aug 2022	Yes	FT
Donald Koban	EMSE	May 2023	Yes	FT
Artin Yousefi	EMSE	May 2028 (expected)	Yes	FT
Alaysha Shearn	EMSE	May 2028 (expected)	Yes	PT
Joseph Simons	EMSE	May 2028 (expected)	Yes	FT

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Student	Department	Graduation Date	Thesis?	PT/FT
Brian Reed	EMSE	May 2028 (expected)	Yes	PT

Personnel Advised — Masters

Student	Department	Graduation Date	Thesis?	PT/FT
Lulwah AlKulaib	CS	May 2018	Yes, and published conference papers	FT
SiHua Qi	CS	May 2018	No, but published conference papers	FT
Douglas Feitosa Tome	ISTM, School of Business	Dec 2015	No, but published conference papers	FT
Marcia Oen	Prevention & Community Health; MSPH	May 2016	No, but advised final project	FT
Jinhee Kim	Health Policy; MSPH	May 2016	No, but advised final project	FT

Personnel Advised — Undergraduate

Student	Department	Graduation Date	Notes	PT/FT
Samsara Counts	EMSE & CS	May 2018	Paper abstract published	FT
Madison Claire Hailey	EMSE & CEE	May 2017	SEAS SUPER; co-supervised with Samer Hamdar	FT
Edna Aguilar	CEE	May 2016	SEAS SUPER; co-supervised with Samer Hamdar	FT
Connor Forsythe	EMSE	May 2018	Just graduated from CMU PhD	FT
Noor Sulaiman Said Busaidi	EMSE	May 2021	Plans to write paper	FT

Professional and Other Service Activities

Professional Society Representative

- GW Delegate, International Engineering Systems Symposium (CESUN) business meeting, Dartmouth, Spring 2017

Conference Organizer

- Local Area Chair & Program Committee Member, 2020 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS), Virtual

- Local Area Chair & Program Committee Member, 2019 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS), Washington, DC
- Local Area Chair, 2018 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS), Washington, DC
- Local Area Chair, 2017 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS), Washington, DC
- Member, Organizing Committee, 2016 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS)
- Track Chair, "Architecture & Complexity," Conference on Systems Engineering Research (CSER), 2017
- Track Chair, "Architecture & Complexity," International Engineering Systems Symposium (CESUN), 2016

Session/Track Organizer

- Psychonomic Society Annual Meeting: 2020, 2021, 2022

Grant Reviewer

- National Science Foundation — EDSE program (x2)
- Wellcome Trust
- National Science Foundation — DRMS program (x2)

Journal Editor

- *PLOS Computational Biology*

Journal Reviewer

- Performed 167 peer reviews for 130 different scholarly manuscripts

Conference/Program Reviewer

- International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (2016–2019)
- Conference on Systems Engineering Research (CSER 2017)
- International Engineering Systems Symposium (CESUN; 2014 & 2016)
- International Conference on Information Systems (ICIS)
- Pacific Symposium on Biocomputing (PSB) special session on Crowdsourcing and Mining the Crowd Data

Other Expert Roles

- Member, Committee on Understanding and Addressing Misinformation About Science, National Academies of Sciences, Engineering, and Medicine. Understanding and Addressing Misinformation About Science. Washington, DC: The National Academies Press, 2025. doi:10.17226/27894.
- Member, Center for Strategic and International Studies—London School of Hygiene & Tropical Medicine High-Level Panel on Vaccine Confidence and Misinformation
- Bridging the Measurements Divide Workshop, Carnegie Endowment for International Peace (March 2022)
- National Academies Workshop: Trust in Public Health Emergency Preparedness and Response

(PHEPR) Science (March 2022)
- Knight Research Network Convening (June 9–10, 2022), Invited Event
- Partnership on Countering Information Operations Workshop on Counter Disinformation Interventions (November 2022), Invited Participant
- Knight Foundation Conference (November 28–30, 2022)
- Closed session panel participant, First World Health Organization Infodemiology Conference

Memberships in Learned Societies

- American Association for the Advancement of Science (AAAS)
- Cognitive Science Society
- Institute of Electrical and Electronics Engineers (IEEE)
- Institute for Operations Research and the Management Sciences (INFORMS)
- Judgment and Decision Making Society
- Omega Rho
- Psychonomic Society
- Society for Medical Decision Making
- Sigma Gamma Tau
- Sigma Xi

Service

Departmental Committees

- Chair, Faculty Search Committee, Department of Engineering Management and Systems Engineering (EMSE), The George Washington University, 2019–2020
- Chair, Data Analytics Curriculum Committee, EMSE, The George Washington University, 2016–Present
- Member, Doctoral Qualifying Exam Grading Committee, EMSE, The George Washington University, 2016–Present
- Member, Masters Student Recruitment Committee, EMSE, The George Washington University, 2014–Present

School-Wide Committees

- Director, Data Analytics Program, The George Washington University, 2017–2023
- Chair, Data Analytics Admissions Committee, The George Washington University, 2017–Present
- Member, Faculty Search Committee, Department of Computer Science, Spring 2018
- Member, SEAS Finance Committee, The George Washington University, 2021–2023
- Member, SEAS Promotion & Tenure Committee, The George Washington University, 2024–2026

University-Wide Committees

- Member, Committee on Academic Integrity, The George Washington University, 2014–Present
- Member, Faculty Search Committee, Milken Institute School of Public Health, Department of Community Health and Prevention, Fall 2018
- Member, Interdisciplinary Research Ecosystem Working Group, Fall 2025–Present

Teaching

Courses Taught

EMSE 6801: Systems Engineering I (Graduate) • Spring 2014
EMSE 6740: Systems Thinking and Policy Modeling I (Graduate) • Fall 2014, Fall

2015, Fall 2016, Fall 2017, Fall 2022

EMSE 6805: Systems Engineering II (Graduate) • Spring 2015

EMSE 4197: Data Mining and Processing (Undergraduate) • Fall 2016

EMSE 6575: Applied Machine Learning for Analytics (Graduate) • Fall 2016 *(taught as EMSE 6579: Data Mining and Processing)*

- Spring 2018 *(taught as EMSE 6992.11: Machine Learning for Analytics)*
- Spring 2019, Spring 2020

EMSE 6992: Data Analytics Foundations and Practicum (Graduate) • Fall 2017, Fall 2018

EMSE 6577: Data Driven Policy for Analytics (Graduate) • Fall 2018, Fall 2019, Fall 2021, Fall 2022, Fall 2023, Fall 2024, Fall 2025

EMSE 8000: Research Formulation in EMSE (Graduate) • Spring 2024, Spring 2025, Spring 2026

SEAS 6402: Data Analytics Capstone • Spring 2019 *(taught as SEAS 6401: Data Analytics Capstone)*

- Fall 2019, Spring 2020

CSCI 6900: Trustworthy AI Seminar • Fall 2022, Spring 2023, Fall 2023

Last updated: May 5, 2026