# DAMIAN J. RUCK

## CONTACT INFORMATION

Advai Ltd
20-22 Wenlock Road
London, N1 7GU
United Kingdom

✉ damian.ruck@advai.co.uk
📞 +44 0793 176 1959
🖥 damianruck.com
 github.com/damianruck
🐦 @damianjruck

## RESEARCH INTERESTS

**Computational Social Science and Adversarial Machine Learning**; including R, Python, Tensorflow, Pytorch, Bash, high performance computing, web scraping, statistics, machine learning, natural language processing, social media, democracy, polarization, public opinion, cultural values.

## EXPERIENCE

**Chief Researcher**, Advai, London, UK *January 2021 - Present*
Adversarial AI research lead

**Contract Researcher**, University of Tennessee, Knoxville, TN *August 2020 - Present*
Department of Journalism and Information Sciences

**Research Fellow**, Northeastern University, Boston, MA *September 2020 - January 2021*
Lazer Lab, Network Science Institute

**Research Fellow**, University of Tennessee, Knoxville, TN *September 2018 - September 2020*
Department of Anthropology and School of Information Sciences

**Research Fellow**, University of Bristol UK *February 2018 - September 2018*
Institute of Population Health Sciences

**Research Fellow**, University of Houston TX *January 2017 - May 2017*
Hobby School of Public Policy

## EDUCATION

**PhD, Computational Social Science** *September 2014 - July 2019*
Bristol Centre for Complexity Science
University of Bristol, Bristol UK
Dissertation title: *Measuring the dynamics of cultural values and their role in human development*

**MRes, Complexity Science** *September 2013 - September 2014*
Bristol Centre for Complexity Science
University of Bristol, Bristol UK

**BEng, (inc. foundation year), Acoustic Engineering** *September 2008 - September 2012*
University of Southampton, Southampton UK

## GRANTS AND AWARDS

**Minerva Grant ($1.6 million)**                                             *March 2019*
Principal Investigator - Maureen Taylor
*United States Department of Defense*
Collaborator

**Mission Agency Research Seed Grant ($45,000)**                          *January 2019*
Principal Investigators - Catherine Luther, R. Alexander Bentley and Natalie M. Rice
*Office of Research and Engagement, University of Tennessee*
Named post-doctoral researcher

**Highest Grade Point Average Award ($1,000)**                               *May 2012*
Institute of Sound and Vibration Research, University of Southampton

**Summer Research Grant ($8,000)**                                           *May 2011*
Nuffield Foundation, UK

**Highest Grade Point Average Award ($1,000)**                               *May 2010*
Institute of Sound and Vibration Research, University of Southampton

## PEER-REVIEWED PUBLICATIONS

RA Bentley, R.A., Carrignon, S., **Ruck D.J.**, Valverde S., OBrien, M.J. (2021). Neutral models are a tool, not a syndrome *Nature Human Behaviour 5 (7), 807-808*

**Ruck, D.J.**, Borycz, J. and Bentley, R.A. (2021). Cultural values predict national COVID-19 death rates *Springer Nature Social Science.*

**Ruck, D.J.**, Bentley, R.A. and Borycz, J. (2021). Early warning of vulnerable counties in a pandemic using socio-economic variables *Economics and Human Biology.*

Stockly, K.J., Arel, S., DeFranza M.K., **Ruck, D.J.** and Matthews, L.J. (2020) Women-Centered Rituals and Levels of Domestic Violence: A Cross-Cultural Examination of Ritual as a Signaling and Solidarity-Building Strategy. *Journal for the Study of Religion, Nature and Culture 14 (1), 95-123*

**Ruck, D.J.**, Bentley, R.A. and Lawson, D.J. (2020). Cultural prerequisites of socioeconomic development. *Royal Society Open Science. 7(2).*

Bentley, R.A., **Ruck, D.J.** and Fouts, H.N. (2020). U.S. obesity as delayed effect of excess sugar. *Economics and Human Biology. 36.*

**Ruck, D.J.**, Matthews, L.J., Kyritsis, T., Atkinson, Q.D. and Bentley, R.A. (2019). The cultural foundations of modern democracies. *Nature Human Behavior.*

Carrignon, S., Bentley, R.A. and **Ruck, D.J.** (2019). Modelling rapid online cultural transmission: evaluating neutral models on Twitter data with approximate Bayesian computation. *Palgrave Communications, 5(83).*

**Ruck, D.J.**, Rice, N.M., Borycz, J. and Bentley, R.A. (2019). Internet Research Agency Twitter activity predicted 2016 U.S. election polls. *First Monday, 24(7).*

Bentley, R.A., Ormerod, P., and **Ruck, D.J.** (2018). Recent origin and evolution of obesity-income correlation across the United States. *Palgrave Communications, 4(146).*

**Ruck, D.J.**, Bentley, R.A. and Lawson, D.J. (2018). Religious change preceded economic change in the 20th century. *Science Advances, 4(7).*

**Ruck, D.J.**, Bentley, R.A., Acerbi, A., Garnett, P. and Hruschka, D.J. (2017). Role of neutral evolution in word turnover during centuries of English Word popularity. *Advances in Complex Systems, 20(6).*

## GENERAL AUDIENCE PUBLICATIONS

Lazer, D., **Ruck, D.J.**, Quintana, A., Shugars, S., Joseph, K., Grinberg, N., Gallagher, R.J, Horgan, L., Gitomer, A., Bajak, A., Baum, M., Ognyanova, K., Qu, H., Hobbs, W., McCabe, S. and Green, J. (2020) Report 18: COVID-19 Fake news on Twitter, *The COVID States Project* October 2020

**Ruck, D.J.** (2019) Behind the paper: Cultural Foundations of Modern Democracy, *Nature Behavioural and Social Sciences.* 02 December 2019

**Ruck, D.J.** (2019) Russian Twitter propaganda predicted 2016 US election polls, *The Conversation.* 01 July 2019

**Ruck, D.J.** (2018) This is the link between religion and economic development, *World Economic Forum.* 03 August 2018

## CONFERENCE AND SEMINAR PRESENTATIONS

**Ruck, D.J.**, Rice, N.M., Borycz, J. and Bentley, R.A. (2019) Social Media Data as a Window on Disinformation Campaign Strategies. *International Communication Association conference*, Washington DC.

**Ruck, D.J.**, Bentley, R.A. and Lawson, D.J. (2019) Religious Change Preceded Economic Change in the 20th Century. *Association for the Study of Economics, Religion and Culture*, Boston MA.

**Ruck, D.J.** (2018) Cultural prerequisites for democracy and economic development. *Center for the Dynamics of Social Complexity*, Knoxville TN.

**Ruck, D.J.** (2017) Heritability of religious belief explains non-linear relationship between secularism and religious subscription. *Conference on Complex Systems*, Cancn Mexico.

**Ruck, D.J.**, Bentley, R.A. and Lawson, D.J. (2017) Describing global change in beliefs and attitudes using the World Values Survey. *Hobby School for Public Affairs*, Houston TX.

## INVITED PRESENTATIONS

**Ruck, D.J.**(2021). Shared Attitudes, COVID-19 and Truth Decay *RAND Center for Applied Network Analysis*, Santa Monica CA.

**Ruck, D.J.**, Maddox, J., Harmon, M. and Hollingsworth, R.A. (2020). Panel: Social Media as Channels of Misinformation and Disinformation *Social Media Week*, Knoxville TN.

**Ruck, D.J.** (2019) Science and political disinformation. *Public Relations Society of America*, Knoxville

TN.

**Ruck, D.J.**, Bentley, R.A. and Lawson, D.J. (2019) Measuring 100 years of cultural value change in 109 nations. *University of Louisville Economics Seminar Series*, Louisville KY.

## TEACHING

**Big Data for Social Science - ANTH 469/51**, University of Tennessee, TN        *Spring 2020*
Co-instructor (forthcoming)

**Big Data for Anthropology - ANTH 469/51**, University of Tennessee, TN        *Spring 2019*
Co-instructor

**Big Data for Public Policy - short course**, University of Houston, TX        *Spring 2017*
Co-instructor

## SEMINARS, JOURNAL CLUBS AND WORKSHOPS ORGANIZED

**Dynamics of Social Complexity (DySoC) journal club**        *January-April 2020*
Center for the Dynamics of Social Complexity, University of Tennessee, Knoxville
Co-organizer (with Simon Carrignon and Denis Tverskoi)

**Workshop on "Science Disinformation"**        *12-13 November 2019*
DataOne, University of Tennessee, Knoxville
Co-organizer (with Suzie Allard and Natalie M. Rice)

**Visit and seminar from Luke Matthews (RAND Corporation)**        *15-16 October 2019*
Center for Dynamics of Social Complexity, University of Tennessee, Knoxville
Co-organizer (with R. Alexander Bentley and Sergey Gavrilets)

## REVIEWER

*First Monday, International Communication Association, RAND Corporation*

## PRESS COVERAGE

*Guardian, Times, Daily Mail, Independent, Telegraph of India, NBC, MSNBC, Wall Street Journal, Washington Post, Newsweek, Knoxville News Sentinel, Salon, Science Magazine, CBC*