

# Alexandros Efstratiou

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## Profile

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I am a PhD Candidate in Computational Social Science in University College London's Computer Science Department with a background in social psychology and behavioral science. My research focuses on the interplay between polarization and misinformation on social media, and has been published in top-tier conferences like ACM CSCW and AAAI ICWSM.

## Education

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**University College London (UCL), Department of Computer Science** **London, UK**

*PhD Computational Social Science (Center for Doctoral Training in Cybersecurity)* *Sept 2020 – Present*

Topic: Propagation of misinformation through polarization on social media. I use methods such as:

- ▷ Machine learning classification (node classification using Graph Convolutional Networks, etc.)
- ▷ Community detection in online networks (Louvain algorithm, cluster analysis, etc.)
- ▷ User/community matching based on similarity metrics (cosine, Mahalanobis distance, etc.)
- ▷ Natural language processing (text classification, sentiment analysis, topic extraction, named entity recognition, etc.)
- ▷ Advanced statistical analysis (mixed-effects regression, structural equation modeling, etc.)
- ▷ Probability estimation and simulation (Markov Chains, binomial regression, etc.)
- ▷ Surveys, behavioral Randomized Controlled Trials (RCTs), and intervention testing

The project is supervised by Professor Emiliano De Cristofaro and Dr Tristan Caulfield and is funded by the UKRI's EPSRC.

**Durham University, Department of Psychology**

**Durham, UK**

*MSc Behavioural Science, Distinction (79.20)/GPA 4.27*

*Sept 2019 – Sept 2020*

Cohort top performer

**University of East Anglia (UEA), School of Psychology**

**Norwich, UK**

*BSc Psychology, First Class Honours (78.85)/GPA 4.25*

*Sept 2016 – July 2019*

Cohort top performer

## Publications

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- ▷ **Efstratiou, A.**, Blackburn, J., Caulfield, T., Stringhini, G., Zannettou, S., & De Cristofaro, E. (2023). Non-polar Opposites: Analyzing the Relationship between Echo Chambers and Hostile Intergroup Interactions on Reddit. *In the 17th International AAAI Conference on Web and Social Media (ICWSM '23)*.
- ▷ **Efstratiou, A.**, & De Cristofaro, E. (2022). Adherence to Misinformation on Social Media Through Socio-Cognitive and Group-Based Processes. *Proceedings of the ACM on Human-Computer Interaction (CSCW '22)*.
- ▷ \*Hughes, J. P., **Efstratiou, A.**, Komer, S., Baxter, L., Vasiljevic, M., & Leite, A. C. (2022). The Impact of Risk Perceptions and Belief in Conspiracy Theories on COVID-19 Pandemic-Related Behaviours. *PLoS One*, 17(2), e0263716.

\*Joint first author.

## Pre-prints

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- ▷ **Efstratiou, A.**, Efstratiou, M., Yudhoatmojo, S., Blackburn, J., & De Cristofaro, E., (2023). Following the Science, But Only Just: False Consensus in Public Twitter Discussions of COVID-19 Science. *Under submission*.
- ▷ **Efstratiou, A.** (2023). Deliberate Exposure to Opposing Views and its Association with Behavior and Rewards on Political Communities. *Under submission*.

## Invited Research Talks and Conference Talks

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- ▷ **UCL Information Security Research Group 2024 (planned):** What I see is all that's real: The dynamics of polarization and misinformation on social media platforms (invited research talk).
- ▷ **ICWSM 2023:** Non-polar opposites: Analyzing the relationship between echo chambers and hostile intergroup interactions on Reddit (conference talk).
- ▷ **GESIS 2023:** Non-polar opposites: An examination of the interplay between echo chambers and hostile intergroup interactions online (invited research talk).
- ▷ **CSCW 2022:** Adherence to misinformation on social media through socio-cognitive and group-based processes (conference talk).
- ▷ **Academy of Management Annual Meeting 2021:** The leadership oversight bias in justice and hypocrisy evaluations of organisational diversity practices (conference talk).

## Teaching

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- ▷ Teaching assistant: Cybersafety and Online Harms (MSc Course), UCL, Spring 2023-24
- ▷ Teaching assistant: People and Security (MSc Course), UCL, Fall 2023-24
- ▷ Teaching assistant: Probability, Statistics, & Modeling (BSc Course), UCL, Fall 2023-24
- ▷ Teaching assistant: Evidence for Decision-Making (MPA Course), UCL, Fall 2022-23
- ▷ Guest lecturer: Evidence for Decision-Making (MPA Course), UCL, Fall 2022-23
- ▷ Guest lecturer: Social Cognition (BSc Course), Durham University, Spring 2019-20

## Service

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- ▷ Program Committee: ICWSM 2023-2024
- ▷ Reviewer: CHI 2024, CogSci 2023, CSCW 2023-2024, EPJ Data Science, S&P 2023, WWW 2023, NDSS 2023, IMC 2022, ICWSM 2022-2024

## Labs & Groups

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<b>Security and Privacy Advanced Lab, UCR/UCL</b> <i>Doctoral Student</i>	<b>Riverside, CA/London, UK</b> <i>2023 – Present</i>
<b>Digital Speech Lab, UCL</b> <i>Research Associate</i>	<b>London, UK</b> <i>2023 – Present</i>
<b>National Research Centre on Privacy, Harm Reduction and Adversarial Influence Online</b> <i>Doctoral Researcher</i>	<b>UK</b> <i>2020 – Present</i>
<b>International Data-driven Research for Advanced Modeling and Analysis (iDRAMA)</b> <i>Doctoral Researcher</i>	<b>Intl.</b> <i>2020 – Present</i>
<b>Information Security Research Group (ISec), UCL</b> <i>Doctoral Student</i>	<b>London, UK</b> <i>2020 – Present</i>

## Other experience

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<b>Fact-Check Cyprus (Part of CUT Social Computing Research Center)</b> <i>Fact-checker; FCC is an official EDMO member.</i>	<b>Limassol, Cyprus (remote)</b> <i>2023 – Present</i>
<b>Ogilvy UK</b> <i>Behavioural Science Practice Intern</i>	<b>London, UK</b> <i>July 2019</i>
<b>UEA Students' Union</b> <i>Student Advocacy Assistant</i>	<b>Norwich, UK</b> <i>2017 – 2019</i>
<b>UEA School of Psychology</b> <i>Research Intern</i>	<b>Norwich, UK</b> <i>June 2018 – July 2018</i>

## Awards & Honors

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- ▷ UCL EPSRC Doctoral Training Program Research Studentship
- ▷ Kurt Lewin prize as top performer in the 2019-2020 MSc Behavioural Science cohort, Durham University.
- ▷ British Psychological Society Prize for Outstanding Undergraduate Degree Performance as top performer of the BSc Psychology cohort at UEA in all three years of study.
- ▷ UEA School of Psychology prize for best undergraduate dissertation (overall) and best undergraduate dissertation (quantitative).

## References

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**Emiliano De Cristofaro** Professor, University of California, Riverside  
Computer Science & Engineering Department  
*emilianodc@cs.ucr.edu*

**Gianluca Stringhini** Associate Professor, Boston University  
Department of Electrical and Computer Engineering  
*gian@bu.edu*

**Jeremy Blackburn** Associate Professor, Binghamton University  
Department of Computer Science  
*jblackbu@binghamton.edu*