

Stefano Cresci, PhD

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I am a computer engineer and ERC grantee with over ten years of experience at the intersection of the Web, society, and artificial intelligence. My research lies in social computing and computational social science, where I study how online platforms shape information flows and collective behavior. I focus in particular on content moderation, coordinated online activity, and the ways people use generative AI technologies. My work explores how algorithmic systems and emerging AI tools interact with online social environments, and what their adoption means for the future of the Web and its societal impact.

Content Moderation • Coordinated Online Behavior • Information Disorder • Human-Centered AI

Highlights

- Co-authored 130+ peer-reviewed publications, accrued 9,700+ citations, and my h-index is 49, according to Google Scholar.
- Principal Investigator of an ERC Starting Grant on data-driven, user-centered, and personalized online content moderation.
- Published in leading venues across general science, computational social science, data science and analytics, including PNAS, CACM, WWW, ICWSM, CSCW, KDD, ICML, IJCAI.
- Recognized with multiple awards for scientific excellence, including the ERCIM Cor Baayen Young Researcher Award and the IEEE Next Generation Data Scientist Award.
- Multiple award-winning publications, with papers receiving the ACM CSCW Impact Recognition Award and the ACM WebSci Best Paper Award.
- Regular reviewer for high-impact general science journals including Nature, Nature Human Behavior, Nature Communications, Science, Science Advances.

Featured Publications

- 2024 S. Tardelli, L. Nizzoli, M. Tesconi, M. Conti, P. Nakov, G. Da San Martino, **S. Cresci**. *Temporal dynamics of coordinated online behavior: Stability, archetypes, and influence*. *Proceedings of the National Academy of Sciences* 121(20). [doi](#) • First evidence of temporal instability in coordinated online behavior
- 2020 **S. Cresci**. *A decade of social bot detection*. *Communications of the ACM* 63(10). [doi](#) • Longitudinal synthesis of advances, key results, and open challenges in bot detection
- 2025 L. Cima, A. Miaschi, A. Trujillo, M. Avvenuti, F. Dell'Orletta, **S. Cresci**. *Contextualized counterspeech: Strategies for adaptation, personalization, and evaluation*. *ACM WWW'25*. [doi](#) • First evidence of effective personalized moderation interventions
- 2025 T. Giorgi, L. Cima, T. Fagni, M. Avvenuti, **S. Cresci**. *Human and LLM biases in hate speech annotations: A socio-demographic analysis of annotators and targets*. *AAAI ICWSM'25*. [doi](#) • Charted bias and misalignment of human and LLM hate speech annotations
- 2025 A. Trujillo, T. Fagni, **S. Cresci**. *The DSA Transparency Database: Auditing self-reported moderation actions by social media*. *ACM CSCW'25*. [doi](#) • Early evidence of opaque and inconsistent platform reporting under the EU Digital Services Act
- 2025 **S. Cresci**, K. Yang, A. Spognardi, R. Di Pietro, F. Menczer, M. Petrocchi. *Demystifying misconceptions in social bots research*. *Social Science Computer Review* 44(5). [doi](#) • Foundational discussion of conceptual and methodological pitfalls in social bot research
- 2017 **S. Cresci**, R. Di Pietro, M. Petrocchi, A. Spognardi, M. Tesconi. *The paradigm-shift of social spambots: Evidence, theories, and tools for the arms race*. *ACM WWW'17 Companion*. [doi](#) • First empirical evidence of the evolution toward human-like coordinated social bots

Grants (selected)

2024	ERC Starting Grant • €1.49M Principal Investigator <i>European Research Council</i>
2023	PRIN 2022 • €228K Principal Investigator <i>Italian Ministry of University and Research</i>
2018	SAGE Ocean Concept Grant • \$35K Principal Investigator <i>SAGE Publishing</i>

(selected) Awards

Impact Recognition Award <i>The 28th ACM CSCW Conference</i>	2025
World's Top 2% Scientists <i>Stanford University & Scopus</i>	2021–2025
Best Research Paper Award <i>The 14th ACM WebSci Conference</i>	2022
Cor Baayen Young Researcher Award <i>European Research Consortium for Informatics and Mathematics</i>	2020
Next-Generation Data Scientist Award <i>IEEE Computer Society & ACM SIGKDD</i>	2019
Best PhD Thesis Award <i>IEEE Computer Society Italy</i>	2019

Professional Service (selected)

EDITORIAL ROLES

2025–present	Associate Editor • EPJ Data Science
2020–2026	Section Editor • Frontiers in Communications and Networks, Frontiers in the Internet of Things • Security, Privacy and Authentication
2021–2025	Section Editor • PLoS ONE • Computer and information sciences – Artificial intelligence, machine learning and data science
2023–2024	Guest Editor • TOMM • Security and Privacy of Avatar in Metaverse
2020	Guest Editor • JCSS • Misinformation, Manipulation and Abuse on social media in the era of COVID-19

EVENT ORGANIZATION

Conference Chair • Global Initiative at ICWSM 2026–2027
Track Chair • Big Data & Analytics at ANT 2021–2023
Workshop Organizer • AIDEM 2025–2026 at ECML-PKDD, COMPASS 2026 at CSCW, COMPASS 2025 at ICWSM, INTEGRITY 2024 at WSDM, DisInfo 2020 at SocInfo, DSSD 2017 at DSAA

PROGRAM COMMITTEES

Senior Program Committee • ICWSM 2026–2027, WebSci 2025, AAAI 2023
Program Committee • TPC member of 47 conference editions since 2015, including: WWW 2022–2026, NeurIPS 2026, MISDOOM 2020–2024, ICWSM 2019–2022, WebSci 2020–2021

REVIEWS

Project Reviewer • ERC Starting Grant 2025 for the European Research Council, FONDECYT Initiation into Research 2019 for the Chilean National Science and Technology Commission, MISE-FCS 2018 for the Italian Ministry of Economic Development
Journal Reviewer • Reviewed for 43 journals, including: Nature, Nature Human Behaviour, Nature Communications, Science, Science Advances, Scientific Reports, EPJ Data Science, JCSS, HKS Misinformation Review, TOIT, TOMM, TWEB, TKDD, TKDE, T-ITS, TMC, TIFS, OSNEM, SNAM

Positions

2023–present	Senior Researcher <i>IIT-CNR, Italy</i>
2018–2023	Tenured Researcher <i>IIT-CNR, Italy</i>
2019	Visiting Researcher <i>Hamad Bin Khalifa University, Qatar</i>
2013–2018	Research Fellow <i>IIT-CNR, Italy</i>
2015	Visiting Researcher <i>Nokia Bell Labs, France</i>

Education

Information Engineering • PhD <i>University of Pisa, Italy</i>	2018 (with honors)
Big Data Analytics & Social Mining • Advanced MSc <i>University of Pisa, Italy</i>	2016 (with honors)
Computer Engineering • MSc <i>University of Pisa, Italy</i>	2013
Computer Engineering • BSc <i>University of Pisa, Italy</i>	2007

Talks (selected)

KEYNOTES

- 2024 *Fostering safe online spaces: Insights from a career in online harms research, from PhD to PI* Doctoral Symposium at QUATIC, Italy
- 2024 *From detection to intervention: Insights into harmful content diffusion and content moderation practices* Workshop DHOW at WebSci, Germany
- 2022 *Automation in social media* Confederation of Laboratories for AI Research in Europe, Online
- 2019 *Detecting malicious social bots: the never-ending clash* MISDOOM, Germany

INVITED TALKS

- 2026 *From AI-powered harms to AI-mediated governance: Rethinking democracy in platform ecosystems* European University Alliance Circle U., Online
- 2024 *Detection and characterization of dynamic, multimodal, and multifaceted coordinated behavior* University of Sheffield, UK
- 2023 *Content moderation: Are we doing it right?* European University Institute, Italy
- 2023 *Detecting and investigating coordinated online behavior* Workshop INTEGRITY at WSDM, Online
- 2021 *Information warfare in the financial domain: Problems and a few solutions* University of Münster, Online
- 2021 *Computational propaganda and social bot detection* University of Passau, Online
- 2020 *Timely and targeted information acquisition from witnesses via hybrid crowdsensing* UN World Data Forum, Online
- 2019 *AI/ML for the collection, analysis, and visualization of emergency posts in social media* Qatar Computing Research Institute, Qatar
- 2019 *Characterization and detection of disinformation-spreading social bots* Hamad Bin Khalifa University, Qatar
- 2018 *Detecting malicious social media accounts: the never-ending clash* MIT Media Lab, USA

PANELS & DISCUSSIONS

- 2020–2021 *Panelist in Innovative use of social media for remote sensing and SDG monitoring* UN World Data Forum, Online
- 2020 *Panelist in Reporting on coronavirus: Inauthentic and coordinated online activity* First Draft News, Online
- 2020 *Podcast participation in Social media bots* Full Fact, Online
- 2020 *Panelist in Tracking trolls, fake influencers and fake personas* Carnegie Endowment, Online

Media & Press (selected)

- 2024 *L'AI che sa far cambiare opinione ai complottisti* Ansa (Italian National Associated Press Agency)
- 2023 *The GitHub black market that helps coders cheat the popularity contest* Wired
- 2022 *Six questions sur la polémique des faux comptes sur Twitter* Les Echos
- 2021 *How to improve our analysis of 'coordinated inauthentic behavior'* First Draft News
- 2021 *Growing use of automated bots to promote stocks on social media contributing to market volatility, experts say* The Globe and Mail
- 2020 *The Premier League's pornbot problem* The Athletic
- 2020 *Data science and biology are being used to map human behavior online* Dell Perspectives
- 2020 *Bot, cyborg o troll: Gli eserciti della propaganda politica online* Valigia Blu
- 2019 *The not-so-simple science of social media 'bots'* First Draft News
- 2018 *Digital DNA: How to map our online behavior* SAGE Research Methods
- 2018 *Così i tweet dei robot insidiano le news dei listini di Borsa* Il Sole 24 Ore
- 2018 *Altro che milioni di follower: Ecco quanti utenti seguono davvero i leader politici su Twitter* La Repubblica

Publications (selected)

Below is a selected list of publications. The full publication list is available in my [extended CV](#).

- 2026 L. Mannocci, M. Mazza, A. Monreale, M. Tesconi, **S. Cresci**. *Detection and characterization of coordinated online behavior: A survey*. *ACM Computing Surveys* 58(16). [doi](#) • 42 cit.
- E. Ricco, E. Onofri, L. Cima, **S. Cresci**, R. Di Pietro. *A geometric analysis of small-sized language model hallucinations*. *ICML'26*. 3 cit.
- 2025 **S. Cresci**, K. Yang, A. Spognardi, R. Di Pietro, F. Menczer, M. Petrocchi. *Demystifying misconceptions in social bots research*. *Social Science Computer Review* 44(5). [doi](#) • 46 cit.
- A. Trujillo, T. Fagni, **S. Cresci**. *The DSA Transparency Database: Auditing self-reported moderation actions by social media*. *ACM CSCW'25*. [doi](#) • 74 cit. • Impact Recognition Award
- B. Tessa, L. Cima, A. Trujillo, M. Avvenuti, **S. Cresci**. *Beyond trial-and-error: Predicting user abandonment after a moderation intervention*. *Engineering Applications of Artificial Intelligence* 162. [doi](#) • 19 cit.
- T. Giorgi, L. Cima, T. Fagni, M. Avvenuti, **S. Cresci**. *Human and LLM biases in hate speech annotations: A socio-demographic analysis of annotators and targets*. *AAAI ICWSM'25*. [doi](#) • 64 cit.
- L. Cima, A. Miaschi, A. Trujillo, M. Avvenuti, F. Dell'Orletta, **S. Cresci**. *Contextualized counterspeech: Strategies for adaptation, personalization, and evaluation*. *ACM WWW'25*. [doi](#) • 38 cit.
- 2024 S. Tardelli, L. Nizzoli, M. Tesconi, M. Conti, P. Nakov, G. Da San Martino, **S. Cresci**. *Temporal dynamics of coordinated online behavior: Stability, archetypes, and influence*. *Proceedings of the National Academy of Sciences* 121(20). [doi](#) • 75 cit.
- V. Padinjaredath Suresh, G. Nogara, F. Cardoso, **S. Cresci**, S. Giordano, L. Luceri. *Tracking fringe and coordinated activity on Twitter leading up to the US Capitol attack*. *AAAI ICWSM'24*. [doi](#) • 60 cit.
- 2022 S. Tardelli, M. Avvenuti, M. Tesconi, **S. Cresci**. *Detecting inorganic financial campaigns on Twitter*. *Information Systems* 103. [doi](#) • 45 cit.
- F. Alam, **S. Cresci**, T. Chakraborty, F. Silvestri, D. Dimitrov, G. Da San Martino, S. Shaar, H. Firooz, P. Nakov. *A survey on multimodal disinformation detection*. *ACL COLING'22*. 277 cit.
- K. Hristakieva, **S. Cresci**, G. Da San Martino, M. Conti, P. Nakov. *The spread of propaganda by coordinated communities on social media*. *ACM WebSci'22*. [doi](#) • 99 cit. • Best Paper Award
- A. Trujillo, **S. Cresci**. *Make Reddit Great Again: Assessing community effects of moderation interventions on r/The_Donald*. *ACM CSCW'22*. [doi](#) • 117 cit.
- 2021 L. Nizzoli, S. Tardelli, M. Avvenuti, **S. Cresci**, M. Tesconi. *Coordinated behavior on social media in 2019 UK General Election*. *AAAI ICWSM'21*. [doi](#) • 182 cit.
- R. Di Pietro, **S. Cresci**. *Metaverse: Security and privacy issues*. *IEEE TPS'21*. [doi](#) • 443 cit.
- 2020 V. Voukelatou, L. Gabrielli, I. Miliou, **S. Cresci**, R. Sharma, M. Tesconi, L. Pappalardo. *Measuring objective and subjective well-being: Dimensions and data sources*. *International Journal of Data Science and Analytics*. [doi](#) • 685 cit.
- M. Mendoza, M. Tesconi, **S. Cresci**. *Bots in social and interaction networks: Detection and impact estimation*. *ACM Transactions on Information Systems* 39(1). [doi](#) • 75 cit. • Invited oral presentation at ACM SIGIR'21
- S. Cresci**. *A decade of social bot detection*. *Communications of the ACM* 63(10). [doi](#) • 545 cit.
- G. Da San Martino, **S. Cresci**, A. Barrón-Cedeño, S. Yu, R. Di Pietro, P. Nakov. *A survey on computational propaganda detection*. *IJCAI'20*. [doi](#) • 295 cit.
- 2019 **S. Cresci**, F. Lillo, D. Regoli, S. Tardelli, M. Tesconi. *Cashtag piggybacking: Uncovering spam and bot activity in stock microblogs on Twitter*. *ACM Transactions on the Web* 13(2). [doi](#) • 197 cit.
- 2018 **S. Cresci**, R. Di Pietro, M. Petrocchi, A. Spognardi, M. Tesconi. *Social Fingerprinting: Detection of spambot groups through DNA-inspired behavioral modeling*. *IEEE Transactions on Dependable and Secure Computing* 15(4). [doi](#) • 306 cit.
- 2017 **S. Cresci**, R. Di Pietro, M. Petrocchi, A. Spognardi, M. Tesconi. *The paradigm-shift of social spambots: Evidence, theories, and tools for the arms race*. *ACM WWW'17 Companion*. [doi](#) • 764 cit.
- 2016 **S. Cresci**, R. Di Pietro, M. Petrocchi, A. Spognardi, M. Tesconi. *DNA-inspired online behavioral modeling and its application to spambot detection*. *IEEE Intelligent Systems* 31(5). [doi](#) • 285 cit.
- 2015 **S. Cresci**, R. Di Pietro, M. Petrocchi, A. Spognardi, M. Tesconi. *Fame for sale: Efficient detection of fake Twitter followers*. *Decision Support Systems* 80. [doi](#) • 722 cit.
- 2014 M. Avvenuti, **S. Cresci**, A. Marchetti, C. Meletti, M. Tesconi. *EARS (Earthquake Alert and Report System): A real time decision support system for earthquake crisis management*. *ACM KDD'14*. [doi](#) • 200 cit. • Runner-up for Best Paper Award