



Maurizio Tesconi

✉ Email address: maurizio.tesconi@cnr.it

WORK EXPERIENCE

Senior Researcher

Institute of Informatics and Telematics of National Research Council (CNR) [31/12/2020 – Current]

City: Pisa

Country: Italy

Researcher

Institute of Informatics and Telematics of National Research Council (CNR) [2007 – 2020]

City: Pisa

Country: Italy

RESEARCH INTERESTS

Summary

Maurizio Tesconi (PhD) is a researcher in Computer Science and *leads the Cyber Intelligence Lab* at the Institute of Informatics and Telematics of CNR.

His research interests include *Artificial Intelligence, Big Data, Web Mining, Social Network Analysis and Visual Analytics* within the context of Open Source Intelligence.

Maurizio is an expert in the analysis and detection of fake profiles on social networks, he teaches CyberIntelligence within the Master in Cyber Security and he is a member of the permanent team of the European Laboratory on Big Data Analytics and Social Mining, performing advanced research and analyses on the emerging challenges posed by Artificial Intelligence and Big Data.

He is responsible for projects financed by important public administrations on issues related to AI for secure societies.

Bibliometric Indicators

SCOPUS: h-index 21, citations 1717, documents 86, Link: <https://www.scopus.com/authid/detail.uri?authorId=55884637000>

Google Scholar: h-index 30, citations 3722, i10-index 64, Link: <https://scholar.google.it/citations?user=uTY9nhoAAAAJ&hl=it>

EDUCATION AND TRAINING

Phd in Computer Engineering

University of Pisa [2003 – 2007]

M.Sc. in Computer Engineering

University of Pisa [2003]

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

My Digital Skills

Data Analytics & Data Mining / Web Mining / Social Network Analysis / Big Data / Python / Data Science / Data Gathering, Data Processing, Data Visualization, Data Analysis / Deep Learning / Machine Learning / Pandas / SQL / Git / Matplotlib / Scikit-Learn / Seaborn / Docker / Artificial Intelligence / Jupyter Notebook

PROJECTS

INTERROGATE Project

[2021 – Current]

Coordinator of the Regione Toscana funded project INTERROGATE that aims to define a Big Data architecture, based on open source solutions, to analyze texts with the most advanced artificial intelligence techniques (Deep Learning)

SoBigData++ (Integrated Infrastructure for Social Mining and Big Data Analytics)

[2019 – Current]

Coordinator of the Cyber Intelligence research unit in the SoBigData++ project.

SoBigData++ (Integrated Infrastructure for Social Mining and Big Data Analytics) strives to deliver a distributed, Pan-European, multi-disciplinary research infrastructure for big social data analytics, coupled with the consolidation of a cross-disciplinary European research community, aimed at using social mining and big data to understand the complexity of our contemporary, globally-interconnected society.

SINAPSI 2.0

[2018 – 2021]

Principal Investigator of the SINAPSI (2.0) Project

Design and implementation of tools for information research aimed at collecting, indexing and analyzing information gathered from specific Internet sources.

Digital DNA Toolbox

[2017 – 2019]

Principal Investigator of the Digital DNA Toolbox Funded by SAGE Concept Grant.

This tool used bioinformatics techniques to provide researchers with a set of cutting-edge tools to assess the veracity, trustworthiness, and reliability of content (and content producers) in online social networks and beyond.

Social Sensing for Breaking News (Smart News)

[2015 – 2018]

Principal Investigator of Social Sensing for Breaking News (Smart News) Funded by FAR-FAS 2014, Regione Toscana – This project developed a tool for managing breaking news that helps journalists from breaking news identification to information collection and writing, applying the social sensing paradigm (users acting as sensors) to the journalism.

Sinapsi Project

[2015 – 2018]

Coordinator of the research unit for the Sinapsi Project.

This project aims to study, design and implement components in the context of Social Media Analysis and Cyber Intelligence for technology transfer to Italian law enforcement agencies

Centro di Ricerca per l'Analisi delle Informazioni Multimediali (CRAIM)

[2014 – 2018]

Scientific coordinator of "Centro di Ricerca per l'Analisi delle Informazioni Multimediali (CRAIM)" a multidisciplinary Lab (DIPPS experts and Computer Scientists) working on Open Source Intelligence and exploiting the use of Big Data technologies and Deep Learning techniques for facial recognition on videos and images.

CASSANDRA Project - Computer Assisted Solutions for Studying the Availability aNd DistRibution of novel psychoActive substances.

[2014 – 2017]

Coordinator of IIT research unit in the CASSANDRA Project - Computer Assisted Solutions for Studying the Availability aNd DistRibution of novel psychoActive substances. Funded by EU Project (JUST/2013/ISEC/DRUGS/AG/6414)

CASSANDRA investigates the supply chain and diffusion of Novel Psychoactive Substances (NPS), by incorporating cutting edge technologies and new social trend indicators into the monitoring of NPS.

Social Sensing Project

[2013 – 2016]

Principal Investigator of SoS – Social Sensing Funded by Registro.it

Social Sensing aims to apply the "human as a sensor" paradigm to develop a decision support systems for emergency management in the aftermath of a natural disaster.

HONOURS AND AWARDS

Premio Nazionale di Divulgazione Scientifica Giancarlo Dosi - legal, economic and social sciences category

[2020]

Winner of the national prize for scientific dissemination Giancarlo Dosi with the book "Fake People" in the legal, economic and social sciences category

SAGE Ocean Concept Grant 2018

[2018]

Winner of SAGE Ocean Concept Grant 2018 - Assigned by SAGE's Concept Grant Program.

Best paper award

[2013]

Best paper award at the Fifth International Conferences on Advances in Multimedia (MMEDIA 2013), Venice, Italy, April 21-26, 2013, for the paper: Automatic Aerial Image Alignment for GeoMemories, Giuseppe Amato, Fabrizio Falchi, Fausto Rabitti, Andrea Marchetti, **Maurizio Tesconi**, ISSN: 2308-4448

Judges Award for the Microsoft Accessibility Challenge

[2012]

winner of the Judges Award at the International Cross-Disciplinary Conference on Web Accessibility (W4A '12)

Microsoft Accessibility Challenge for the paper: ABCD SW: autistic behavior & computer-based didactic software, M Claudia Buzzi, Marina Buzzi, Davide Gazzé, Caterina Senette, **Maurizio Tesconi**, ISBN: 978-1-4503-1019-2 doi: 10.1145/2207016.2207037

Premio Leonardo – Ugis

[2011]

Winner of Premio Leonardo – Ugis. Assigned by Fondazione Museo Nazionale della Scienza e della Tecnologia Leonardo da Vinci.

ACADEMIC ACTIVITY

Reviewer of scientific papers and Editorial board

[Current]

Reviewer of scientific papers for numerous conferences and journals such as IEEE Access, ACM Transactions on Information Systems, Applied Computing and Informatics, Applied Soft Computing Journal, Electronics, Journal of Network and Computer Applications, Online Social Networks and Media, Applied Sciences, PlosOne, etc.

Member of Editorial Board for 'Computing and Artificial Intelligence' section of Applied Sciences Journal (ISSN 2076-3417)

Evaluation of research results

[Current]

Reviewer of research projects funded by the Ministry of Economic Development (MISE)

Project reviewer for FONDECYT - Chilean National Science and Technology Commission

Evaluator of the research activity of IIT research fellows

Information Disorder: Disinformation and Coordinated Inauthentic Behavior (DisInfo'20) Workshop @ SocInfo 2020 Conference.

[2020]

Member of the organizing committee and Chair of the "Information Disorder: Disinformation and Coordinated Inauthentic Behavior (DisInfo'20) Workshop @ SocInfo 2020 Conference.

Hate Speech Detection (HaSpeeDe) task @ EVALITA18

[2018]

Member of the organizing committee of the "Hate Speech Detection (HaSpeeDe) task" @ EVALITA18 Conference

Data Science in Societal Debates session @DSAA 2017

[2017]

Member of the organizing committee and Chair of "Data Science in Societal Debates" session @ IEEE International Conference on Data Science and Advanced Analytics (DSAA 2017)

W3C workshop "LOD2014 - Linked Open Data: where are we?"

[2014]

Member of the Steering Committee of the W3C workshop "LOD2014 - Linked Open Data: where are we?"

"Towards A European Laboratory On Big Data Analytics And Social Mining" Bootstrap Workshop.

[2013]

Member of the Steering Committee of the "Towards A European Laboratory On Big Data Analytics And Social Mining" Bootstrap Workshop.

Main Teaching Activities

2021 - Present: PhD Board member of the National PhD in Artificial Intelligence (PhD-AI.it) - AI for Society.

2021 - Present: Progettazione Web Course at the Computer Engineering @ University of Pisa

2017 - Present: Cyber Intelligence Course at the First Level Master in Cyber Security (UniPI)

2015 - 2017 Big Data Sources, crowdsourcing, crowd sensing Course at the II Level Master in Big Data Analytics and Social Mining (UniPI)

2015 - 2016 Data Visualization & Visual Analytics Course at the II Level Master in Big Data Analytics and Social Mining (UniPI)

2015 Big Data for Social Good: Engagement Course at the II Level Master in Big Data Analytics and Social Mining (UniPI)

2007 - Present B.Sc. Master Thesis (n= 12) and Doctoral Thesis Supervisor (n= 6) for 18 Students at the University of Pisa (UniPI)

PUBLICATIONS

TweepFake: About detecting deepfake tweets

[2021]

Fagni T., Falchi F., Gambini M., Martella A., **Tesconi M** (2021). *TweepFake: about detecting deepfake tweets*. PLOS ONE, vol. 16, ISSN: 1932-6203, doi: 10.1371/journal.pone.0251415, Journal category: Multidisciplinary - Q1

The limited reach of fake news on Twitter during 2019 European elections.

[2020]

Cinelli M, Cresci S, Galeazzi A, Quattrociocchi W, **Tesconi M** (2020). *The limited reach of fake news on Twitter during 2019 European elections*. PLOS ONE, vol. 1, ISSN: 1932-6203, doi: 10.1371/journal.pone.0234689, Journal category: Multidisciplinary - Q1

Geo-semantic-parsing: AI-powered geoparsing by traversing semantic knowledge graphs

[2020]

Nizzoli, L., Avvenuti, M., **Tesconi, M.**, and Cresci, S. (2020). *Geo-semantic-parsing: AI-powered geoparsing by traversing semantic knowledge graphs*. Decision Support Systems. (Vol. 136, pp. 113346). Elsevier, Journal category: Information Systems – Q1

Charting the Landscape of Online Cryptocurrency Manipulation

[2020]

Nizzoli, L., Tardelli, S., Avvenuti, M., Cresci, S., **Tesconi, M.**, and Ferrara, E. (2020). *Charting the Landscape of Online Cryptocurrency Manipulation*. IEEE Access. (Vol. 8, pp. 113230). IEEE. Journal category: Computer Science – Q1

Towards better social crisis data with HERMES: Hybrid sensing for EmeRgency ManagEment System

[2020]

Avvenuti, M., Bellomo, S., Cresci, S., Nizzoli, L., and **Tesconi, M.** (2020). *Towards better social crisis data with HERMES: Hybrid sensing for EmeRgency ManagEment System*. Pervasive and Mobile Computing. (Vol. 67, pp. 101225). Elsevier. Journal category: Computer Science, Information Systems – Q1

Bots in Social and Interaction Networks.

[2020]

Mendoza M., **Tesconi M**, Cresci S. (2020). *Bots in Social and Interaction Networks*. ACM TRANSACTIONS ON INFORMATION SYSTEMS, ISSN: 1046-8188, Journal category: Computer Science, Information Systems – Q1

CrisMap: a Big Data Crisis Mapping System Based on Damage Detection and Geoparsing

[2018]

Avvenuti M, Cresci S, Del Vigna F, Fagni T, **Tesconi M** (2018). *CrisMap: a Big Data Crisis Mapping System Based on Damage Detection and Geoparsing*. INFORMATION SYSTEMS FRONTIERS, vol. 21, p. 37-45, ISSN: 1387-3326, doi: 10.1007/s10796-018-9833-z, Journal category: Computer Networks and Communications, Information Systems – Q1

Nowcasting of Earthquake Consequences using Big Social Data

[2017]

Avvenuti M, Cresci S, Meletti C, La Polla M. N, **Tesconi M** (2017). *Nowcasting of Earthquake Consequences using Big Social Data*. IEEE INTERNET COMPUTING, vol. 21, p. 37-45, ISSN: 1089-7801, doi: 10.1109/MIC.2017.4180834, Journal category: Computer Networks and Communications – Q1

Social fingerprinting: detection of spambot groups through DNA-inspired behavioral modeling

[2017]

Cresci S, Di Pietro R, Petrocchi M, Spognardi A, **Tesconi M** (2017). *Social fingerprinting: detection of spambot groups through DNA-inspired behavioral modeling*. IEEE TRANSACTIONS ON DEPENDABLE AND SECURE COMPUTING, ISSN: 1545-5971, doi: 10.1109/TDSC.2017.2681672, Journal category: Computer Science – Q1

Impromptu crisis mapping to prioritize emergency response

[2016]

Avvenuti M, Cresci S, Del Vigna F, **Tesconi M** (2016). *Impromptu crisis mapping to prioritize emergency response*. COMPUTER, vol. 21, p. 37-45, ISSN: 0018-9162, doi: 10.1109/MC.2016.134, Journal category: Computer Science – Q1

DNA-Inspired Online Behavioral Modeling and Its Application to Spambot Detection

[2016]

Cresci S., Di Pietro R., Petrocchi M., Spognardi A, **Tesconi M** (2016). *DNA-Inspired Online Behavioral Modeling and Its Application to Spambot Detection*. IEEE INTELLIGENT SYSTEMS, vol. 2, ISSN: 1541-1672, doi: 10.1109/MIS.2016.29, Journal category: Computer Networks and Communications, Artificial Intelligence – Q1

A framework for detecting unfolding emergencies using humans as sensors

[2016]

Avvenuti M, Cimino MGCA, Cresci S, Marchetti A, **Tesconi M** (2016). *A framework for detecting unfolding emergencies using humans as sensors*. SPRINGERPLUS, vol. 5, ISSN: 2193-1801, doi: 10.1186/s40064-016-1674-y, Journal category: Multidisciplinary - Q1

Fame for sale: Efficient detection of fake Twitter followers

[2015]

Cresci S, Di Pietro R, Petrocchi M, Spognardi A, **Tesconi M** (2015). *Fame for sale: Efficient detection of fake Twitter followers*. DECISION SUPPORT SYSTEMS, vol. 80, p. 56-71, ISSN: 0167-9236, doi: 10.1016/j.dss.2015.09.003, Journal category: Information Systems – Q1

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Pisa, 03/08/2022