



Dr. Nicolas COINTE

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Postdoc scholar in Artificial Intelligence

Overview of skills	
A. I.	Multiagent systems, semantic web, reinforcement learning, knowledge compilation, stochastic processes, Bayesian networks, Markov decision processes, distributed A.I.
Optimization	Graph/hypergraph theory, constraint satisfaction problem, meta-heuristics
Data science	Association rule learning, clustering, sequential pattern mining
Diplomas	
2014 - 2017	Ph.D. in “Ethical judgment for decision and cooperation in Multiagent Systems” , École des Mines de Saint Étienne
2012 - 2014	Master's degree in Computer Science, specialization in Decision and Optimization, research track, University of Normandy
2010 - 2012	Bachelor degree in Information Technologies, University of Normandy
2008 - 2010	2-year technical degree in Electrical Engineering and Applied Computing , University of Technology Cherbourg-Manche
Work experience	
2018 - 2021	Postdoc position funded by the ERC Horizon 2020 research and innovation programme BEHAVE (grant agreement No. 724431). Design of agent-based models for simulations and policy evaluation
2017 - 2018	Postdoc position in École des Mines de Saint Étienne in collaboration with Telecom Sud Paris. Exploring security of AES encryption versus DPA attacks on next-generation GPON networks equipment
2014 - 2017	Ph.D. in École des Mines de Saint Étienne, funded by the ANR project ETHICAA
April - May 2012	Analysis of the American SCADA system “EPICS” for the “SPIRAL2” project (extension of the national large ion collider named “GANIL”) - Atomic Energy and Alternative Energies Commission (CEA) / Division of Sciences of Matter (DSM)
April - June 2010	Design of a high-speed and high-definition acquisition device for the Linear Collider Laboratory of Orsay - National Center for Scientific Research (CNRS) / National Institute of Nuclear and Particle Physics (IN2P3).
Teaching	
École des Mines de Saint-Étienne	Reinforcement learning and supervised learning – lecture (3h), recitation (6h) and practical works (3h) C language and agile methodology – recitation (13.5h), practical works (19.5h) Object Oriented Programming – recitation (9.5h), practical works (22.5h) Databases – practical works (6h)
TU Delft	Supervision of BSc research projects on “Crowd evacuation modeling”(around 25h)

A selection of communications

Journals

- ▶ Nicolas Cointe, Grégory Bonnet, and Olivier Boissier. *Jugement éthique dans le processus de décision d'un agent BDI*. Revue d'Intelligence Artificielle, Lavoisier, 2017, vol. 31 (4), pp.471-499.
- ▶ Nicolas Cointe, Grégory Bonnet, and Olivier Boissier. *Éthique collective dans les systèmes multi-agents*. Revue d'Intelligence Artificielle, 2017, Lavoisier, vol. 31, no 1-2, p. 71-96.

International conferences and workshops

- ▶ Nicolas Cointe, Amineh Ghorbani, Caspar Chorus, *Beyond obscurantism and illegitimate curiosity : how to be transparent only with a restricted set of trusted agents*. 1st EXplainable and TRansparent Agents and MultiAgent Systems (EXTRAAMAS), May 2019.
- ▶ Nicolas Cointe, Grégory Bonnet, Olivier Boissier, *Ethics-based Cooperation in Multi-Agent Systems*. 14th Social Simulation Conference (SSC18), August 2018.
- ▶ Nicolas Cointe, Grégory Bonnet, Olivier Boissier, *Ethical Judgment of Agents' Behaviors in Multi-Agent Systems*. International Conference on Autonomous Agents and Multiagent Systems (AAMAS), May 2016.

National conferences

- ▶ Nicolas Cointe, Grégory Bonnet and Olivier Boissier, *Jugement éthique pour la décision et la coopération dans le cadre de la gestion d'actifs financiers* (démonstration). Journées Francophones sur les Systèmes Multi-Agents (JFSMA), October 2018, pp 225-226.
- ▶ Nicolas Cointe, Grégory Bonnet and Olivier Boissier, *Coopération entre agents autonomes fondées sur l'éthique*. Journées Francophones sur les Systèmes Multi-Agents (JFSMA), July 2017.
- ▶ Nicolas Cointe, Grégory Bonnet and Olivier Boissier, *Jugement éthique dans les systèmes multi-agents*. Journées Francophones sur les Systèmes Multi-Agents (JFSMA), October 2016.
- ▶ Nicolas Cointe, Grégory Bonnet and Olivier Boissier, *De l'intérêt de l'éthique dans les systèmes multi-agents*, Rencontre des Jeunes Chercheurs en Intelligence Artificielle (RJCIA), June 2015.

Other communications

- ▶ Audition by the Parliamentary Office for Scientific and Technological Assessment, for the report number 464 (2016-2017), "Pour une intelligence artificielle maîtrisée, utile et démystifiée".
- ▶ Coorganisation of the workshop "Ethics, social values and artificial intelligence" at the Euroscience Open Forum, Jul 2018, Toulouse, France.

References

Prof. Dr. Chorus	Full Professor, Coordinator of ERC BEHAVE H2020 project, head of Engineering Systems and Services Dept at TPM faculty, TU Delft +31 (0)1 52 78 85 46, c.g.chorus@tudelft.nl
Prof. Dr. Boissier	Thesis advisor, Full Professor, Computer Science dept at Mines Saint-Etienne +33 (0)4 77 42 66 14, olivier.boissier@mines-stetienne.fr Home page : http://www.emse.fr/~boissier/
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Prof. Dr. Zanuttini	Coordinator of the Master in Decision and Optimisation +33 (0)2 31 56 74 84, bruno.zanuttini@unicaen.fr Home page : https://zanuttini.users.greyc.fr/
Dr. Gougeon	IT Teacher at the University of Technology Cherbourg-Manche +33 (0)2 33 01 46 04, gilles.gougeon@unicaen.fr