

Dave de Jonge

Curriculum Vitae

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ORCID: 0000-0003-2364-9497

Personal Information

Date of Birth 10 June 1984
Place of Birth Amsterdam, The Netherlands
Nationality The Netherlands

Academic Career

2025-present **Tecnólogo**, IIA-CSIC, Barcelona, Spain.
2018-2025 **Postdoc**, IIA-CSIC, Barcelona, Spain.
2017-2018 **Associate Lecturer**, WESTERN SYDNEY UNIVERSITY, Australia.
2015-2017 **Postdoc**, WESTERN SYDNEY UNIVERSITY, Australia.

Education

2010–2015 **PhD in Computer Science (Cum Laude)**,
IIA-CSIC/UNIVERSITAT AUTÒNOMA DE BARCELONA,
Supervisor: Carles Sierra.
2005–2008 **Master in Mathematical Physics**, UNIVERSITEIT VAN AMSTERDAM, The
Netherlands.
2002–2005 **Bachelor in Physics**, UNIVERSITEIT VAN AMSTERDAM, The Netherlands.

Grants Received

2024 **Ayuda Ramón y Cajal**
- Value: EUR 244,350.-
- Duration: April 2024 - March 2029 (renounced in February 2025)
- Reference: RYC2022-035229-I
2019 **Juan de la Cierva - Incorporación**
- Value: EUR 101,160.-
- Duration: July 2020 - June 2023 (renounced in March 2023).
- Reference: IJC2018-036443-I
2014 **Endeavour Research Fellowship**
- Awarded by: THE AUSTRALIAN DEPARTMENT OF EDUCATION.
- Value: AUD 23,000.-
- Duration: October 2015 - March 2016.

- Details: For postdoctoral research at Western Sydney University.
- Reference: 4577_2015

PhD Students

- 2024 - ... **Laura Rodriguez Cima**, UNIVERSITAT AUTÒNOMA DE BARCELONA
 Program: PhD in Computer Science
 Thesis: T.B.D.
- 2019 - 2023 **Jianglin Qiao**, UNIVERSITAT AUTÒNOMA DE BARCELONA /
 WESTERN SYDNEY UNIVERSITY
 Program: PhD in Computer Science
 Thesis: *Smart Traffic Control for the Era of Autonomous Driving*

Master Students

- 2024 - 2025 **David Aguilera**
 UNIVERSITAT POLITÈCNICA DE CATALUNYA
 Program: Master in Computer Science
 Thesis: T.B.D
- 2023 - 2024 **Marc Mases**
 UNIVERSITAT AUTÒNOMA DE BARCELONA
 Program: Master in Modelling for Science and Engineering
 Thesis: *Improving State of the art negotiation algorithms*
- 2021 - 2024 **Ana Cocho Bermejo**
 UNIVERSITAT POLITÈCNICA DE CATALUNYA
 Program: Master in Artificial Intelligence
 Thesis: *Space Depth Analysis via Agent Oriented Programming. A Review and Update of Space Syntax Methodology*
- 2022 - 2023 **Laura Rodriguez Cima**
 UNIVERSITAT AUTÒNOMA DE BARCELONA
 Program: Master in Modelling for Science and Engineering
 Thesis: *Advancing Automated Negotiations in Diplomacy: Design and Implementation of an Effective Negotiation Bot*
- 2022 - 2023 **Junjie Jordi Chen**
 UNIVERSITAT AUTÒNOMA DE BARCELONA
 Program: Master in Modelling for Science and Engineering
 Thesis: *Comparative analysis and performance evaluation of TwoOneFive: A realistic negotiating agent in the Supply Chain Management League*

Principal Investigator in International Projects

- 2025-2026 **DEALigently: LLM-based agent negotiation in auctions**
- Funded by: CSIC / TEC. Reference: BITEC24010
 - Budget: EUR 36,000
 - Partners: CSIC (Spain), Tecnológico de Monterrey (Mexico)

Participation in International Projects

- 2018-2021 **Enhanced Data Management Techniques for real time logistics planning and scheduling (LOGISTAR)**
- Funded by: THE EUROPEAN COMMISSION, H2020, grant number 769142.
 - Budget: EUR 4,997,548.75
 - My tasks: To develop a negotiation algorithm that allows logistics companies to negotiate the exchange of delivery orders between them.
- 2012-2015 **Practice and Performance Analysis Inspiring Social Education (PRAISE)**
- Funded by: THE EUROPEAN COMMISSION, FP7, grant number 388770.
 - Budget: EUR 3,365,977
 - My tasks: To study the application of automated negotiation techniques for the establishment of norms in an online community for music education.
- 2011-2013 **Autonomic Software Engineering for Online Cultural Experiences (ACE)**
- Funded by: ERA-NET CHIST-ERA, contract CHRI-001-03
 - Budget: EUR 500,000
 - My tasks: To develop a negotiation algorithm that helps people to jointly engage in online social activities, while physically separated.

Participation in National Projects

- 2023-2025 **Value-Awareness Engineering (VAE)**
- Funded by: Ministerio de Ciencia e Innovación / Agencia Estatal de Investigación, contract TED2021-131295B-C31
 - Budget: EUR 1.967.650,00
 - My tasks: To develop algorithms for value-aware negotiation.
- 2010-2014 **Agreement Technologies (AT)**
- Funded by: CONSOLIDER-INGENIO 2010, contract CSD2007- 0022
 - Budget: EUR 5.300.000
 - My tasks: To develop an algorithm that allows an agent to negotiate with multiple partners simultaneously, while the space of possible agreements is astronomically large, and where the calculation of utility values is computationally hard.

Research Organization Activities

Program Chair:

- 2020 The 7th International Conference on Agreement Technologies (AT 2020), 14 - 15 September 2020, Thessaloniki, Greece

Thematic Track Chair:

- 2019 MULTIAGENT SYSTEMS: THEORY AND APPLICATIONS (MASTA@EPIA), 4 Sep 2019, Vila Real, Portugal

Organizer:

- 2019 AUTOMATED NEGOTIATING AGENTS COMPETITION (ANAC@IJCAI)
Diplomacy League, Macao, China
- 2018 AUTOMATED NEGOTIATING AGENTS COMPETITION (ANAC@IJCAI),
Diplomacy League, Stockholm, Sweden
- 2017 AUTOMATED NEGOTIATING AGENTS COMPETITION (ANAC@IJCAI),
Diplomacy League, Melbourne, Australia

Awards Received

- 2023 **Second Prize**, Automated Negotiating Agents Competition,
AAMAS, 29 May - 2 June, London, UK.
- 2018 **Best Early Researcher Paper**, for my paper
The Challenge of Negotiation in the Game of Diplomacy,
THE 6TH INTERNATIONAL CONFERENCE ON AGREEMENT TECHNOLOGIES,
Bergen, Norway.
- 2018 **Distinguished Dissertation Award** (Premi Extraordinari de Doctorat),
for my PhD Thesis *Negotiations over Large Agreement Spaces*,
awarded by the UNIVERSITAT AUTÒNOMA DE BARCELONA.
- 2016 **Best Paper Award**, for my paper
Lifted Backward Search for General Game Playing,
THE 29TH AUSTRALASIAN JOINT CONFERENCE ON A.I., 5-8 December, Hobart,
Australia.
- 2016 **Most Visionary Paper**, for my paper
Using GDL to Represent Domain Knowledge for Automated Negotiations,
THE 9TH INT. WORKSHOP ON AGENT-BASED COMPLEX AUTOMATED NEGOTIATIONS (ACAN@AAMAS), Singapore.
- 2015 **Best Paper Award**, for my paper
Trust, Negotiations and Virtual Currencies for a Sharing Economy,
THE 3RD INT. CONF. ON AGREEMENT TECHNOLOGIES, Athens, Greece.
- 2015 **First Prize**, Computational Diplomacy Challenge,
THE 18TH ICGA COMPUTER OLYMPIAD, 29 June – 5 July, Leiden, The
Netherlands.
- 2014 **Second Prize**, Automated Negotiating Agents Competition,
AAMAS, Paris, France.

Bibliometrics (Google Scholar)

06/05/2025 Citation count: 477
h-index: 14
i10-index: 18

Publications in Journals

Q1 (Scopus, Computer Science - Artificial Intelligence):

- 1 **Dave de Jonge** and Carles Sierra,
NB3: a Multilateral Negotiation Algorithm for Large, Non-linear Agreement Spaces with Limited Time,
Autonomous Agents and Multi-Agent Systems, 29 (5): 896-942, 2015.
- 2 Roberto Confalonieri, Matthew Yee-King, Katina Hazelden, Mark d'Inverno, **Dave de Jonge**, Carles Sierra, Nardine Osman, Leila Amgoud and Henri Prade,
Engineering Multiuser Museum Interactives for Shared Cultural Experiences,
Engineering Applications of Artificial Intelligence: 46(A) 180-195, 2015.

Q2 (Scopus, Computer Science - Artificial Intelligence):

- 3 **Dave de Jonge**,
Theoretical Properties of the MiCRO Negotiation Strategy,
Autonomous Agents and Multi-Agent Systems, 38, Article number 46, 2024.
- 4 Jianglin Qiao, **Dave de Jonge**, Dongmo Zhang, Simeon Simoff, Carles Sierra, Bo Du,
Price of Anarchy of Traffic Assignment with Exponential Cost Functions,
Autonomous Agents and Multi-Agent Systems, 37, Article number 42, 2023.
- 5 **Dave de Jonge**,
A New Bargaining Solution for Finite Offer Spaces,
Applied Intelligence, 53: 28310–28332, 2023.
- 6 **Dave de Jonge**, Filippo Bistaffa, and Jordi Levy,
Multi-Objective Vehicle Routing with Automated Negotiation,
Applied Intelligence, 52 (14): 16916-16939, 2022.
- 7 **Dave de Jonge** and Dongmo Zhang,
GDL as a Unifying Domain Description Language for Declarative Automated Negotiation,
Autonomous Agents and Multi-Agent Systems, 35, Article number 13, 2021.
- 8 **Dave de Jonge** and Dongmo Zhang,
Strategic Negotiations for Extensive Form Games,
Autonomous Agents and Multi-Agent Systems, 34 (1), 2020.
- 9 **Dave de Jonge** and Carles Sierra,
D-Brane: a Diplomacy Playing Agent for Automated Negotiations Research,
Applied Intelligence, 47 (1): 158-177, 2017.

Q3 (Scopus, Computer Science - Artificial Intelligence):

- 10 Thimjo Koça, **Dave de Jonge**, Tim Baarslag,
Search Algorithms for Automated Negotiation in Large Domains,
Annals of Mathematics and Artificial Intelligence, 92 (4): 903-924, 2024.

Q4 (Scopus, Computer Science - Artificial Intelligence):

- 11 **Dave de Jonge**, T. Trescak, C. Sierra, S. Simoff, and R. Lopez de Mantaras,
Using Game Description Language for Mediated Dispute Resolution,
AI & Society, 34 (4): 767-784, 2019.

Publications in Conference Proceedings

CORE A*:

- 12 **Dave de Jonge** and Laura Rodriguez Cima,
Attila: a Negotiating Agent for the Game of Diplomacy, Based on Purely Symbolic A.I.,
The 23rd International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Auckland, New Zealand, 6-10 May 2024.
- 13 Jianglin Qiao, **Dave de Jonge**, Dongmo Zhang, Simeon Simoff, Carles Sierra, Bo Du,
Extended Abstract: Price of Anarchy of Traffic Assignment with Exponential Cost Functions,
The 23rd International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Auckland, New Zealand, 6-10 May 2024.
- 14 **Dave de Jonge**,
An Analysis of the Linear Bilateral ANAC Domains Using the MiCRO Benchmark Strategy,
The 31st International Joint Conference on Artificial Intelligence (IJCAI), Vienna, Austria, 23-29 July 2022, pages 223–229.
- 15 **Dave de Jonge** and Dongmo Zhang,
GDL as a Unifying Domain Description Language for Declarative Automated Negotiation,
The 21st International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Auckland, New Zealand (virtual), 9-13 May 2022.
- 16 **Dave de Jonge**, Filippo Bistaffa, and Jordi Levy,
A Heuristic Algorithm for Multi-Agent Vehicle Routing with Automated Negotiation,
The 20th International Conference on Autonomous Agents and Multi-Agent Systems, London, UK (virtual), 3-7 May 2021.
- 17 **Dave de Jonge**, and Dongmo Zhang,
Strategic Negotiations for Extensive-Form Games (extended abstract),
The 19th International Conference on Autonomous Agents and Multi-Agent Systems, Auckland, New Zealand (virtual), 9-13 May 2020.
- 18 **Dave de Jonge** and Dongmo Zhang,
Automated Negotiations for General Game Playing,
AAMAS, São Paulo, Brazil, 2017.
- 19 Matthew Yee-King, Roberto Confalonieri, **Dave de Jonge**, Katina Hazelden, Carles Sierra, Mark d’Inverno, Leila Amgoud, and Nardine Osman,
Multiuser Museum Interactives for Shared Cultural Experiences: an Agent Based Approach,
AAMAS, Saint Paul, Minnesota, USA, 2013.

- 20 Andrew Koster, Jordi Madrenas, Nardine Osman, Marco Schorlemmer, Jordi Sabater Mir, Carles Sierra, Angela Fabregues, **Dave de Jonge**, Josep Puyol-Gruart, and Pere García,
U-Help: Supporting Helpful Communities with Information Technology (extended abstract),
AAMAS, Saint Paul, Minnesota, USA, 2013.
- 21 Katina Hazelden, Matthew Yee-King, Roberto Confalonieri, Carles Sierra, Fiammetta Ghedini, **Dave de Jonge**, Nardine Osman and Mark d’Inverno,
WeCurate: Multiuser Museum Interactives for Shared Cultural Experiences,
The ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), Paris, France, 2013.
- 22 **Dave de Jonge** and Carles Sierra,
Branch and bound for Negotiations in Large Agreement Spaces (extended abstract),
AAMAS, Valencia, Spain, 2012.

CORE B:

- 23 **Dave de Jonge** and Laura Rodriguez Cima,
Attila: a Negotiating Diplomacy Player Based on Purely Symbolic A.I.,
The 25th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA), Kyoto, Japan, 18-24 November 2024, pages 3–8.
- 24 Jianling Qiao, Dongmo Zhang, **Dave de Jonge**, Simeon Simoff and Carles Sierra,
Automated Negotiation Mechanisms for Autonomous Vehicles at Intersection,
The 21st Pacific Rim International Conference on Artificial Intelligence (PRICAI), Kyoto, Japan, 18-24 November 2024, pages 271–283.
- 25 Jianling Qiao, **Dave de Jonge**, Dongmo Zhang, Carles Sierra and Simeon Simoff,
A Hybrid Model of Traffic Assignment and Control for Autonomous Vehicles,
The 24th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA), Valencia, Spain, 16-18 November 2022, pages 208–226.
- 26 Jianling Qiao, Dongmo Zhang, and **Dave de Jonge**,
Graph Representation of Road and Traffic for Autonomous Driving,
The 16th Pacific Rim International Conference on Artificial Intelligence, Yanuca Island, Cuvu, Fiji, 26-30 August 2019.
- 27 Leila Amgoud, Roberto Confalonieri, **Dave de Jonge**, Mark d’Inverno, Katina Hazelden, Nardine Osman, Henri Prade, Carles Sierra, and Matthew Yee-King,
Sharing Online Cultural Experiences: An Argument-Based Approach,
International Conference on Modeling Decisions for Artificial Intelligence, Girona, Spain, 2012.

CORE Australasian B:

- 28 Jianling Qiao, Dongmo Zhang, and **Dave de Jonge**,
Priority-based Traffic Management Protocol for Autonomous Vehicles on Road Network,
The 34th Australasian Joint Conference on Artificial Intelligence, Sydney, Australia, 2-4 February 2022, Lecture Notes in Computer Science Vol. 13151, pages 240-253.

- 29 Jianling Qiao, Dongmo Zhang, and **Dave de Jonge**,
Virtual Roundabout Protocol for Autonomous Vehicles,
Australasian Joint Conf. on Artificial Intelligence, Wellington, New Zealand, 2018.
- 30 **Dave de Jonge** and Dongmo Zhang,
Lifted Backward Search for General Game Playing,
Best Paper Award,
Australasian Joint Conference on Artificial Intelligence, Hobart, Australia, 5-8
December 2016.
- Other Conferences:**
- 31 Reyhan Aydoğan, Tim Baarslag, Katsuhide Fujita, Johnathan Mell, Jonathan Gratch,
Dave de Jonge, Yasser Mohammad, Shinji Nakadai, Satoshi Morinaga, Hirotaka
Osawa, Claus Aranha, and Catholijn Jonker,
Research Challenges for the Automated Negotiating Agents Competition (ANAC)
2019,
The 7th International Conference on Agreement Technologies, Thessaloniki, Greece,
14-15 September 2020.
- 32 **Dave de Jonge**, Tim Baarslag, Reyhan Aydoğan, Catholijn Jonker, Katsuhide
Fujita, and Takayuki Ito,
The Challenge of Negotiation in the Game of Diplomacy,
Best Early Researcher Paper,
The 6th International Conference on Agreement Technologies, Bergen, Norway, 6-7
December 2018.
- 33 **Dave de Jonge** and Carles Sierra,
Trust, Negotiations and Virtual Currencies for a Sharing Economy,
Best Paper Award,
Agreement Technologies, Athens, Greece, 2015.
- 34 **Dave de Jonge**, Bruno Rosell, and Carles Sierra,
Human Interactions in Electronic Institutions,
Agreement Technologies, Beijing, China, 2013.
- 35 Nardine Osman, Mark d’Inverno, Carles Sierra, Leila Amgoud, Henri Prade, Matthew
Yee-King, Roberto Confalonieri, **Dave de Jonge**, and Katina Hazelden,
An Experience-Based BDI Logic: Motivating Shared Experiences and Intentionality,
Annual Conference of the IEEE Industrial Electronics Society (IECON), Vienna,
Austria, 2013.
- 36 Katina Hazelden, Matthew Yee-King, Leila Amgoud, Mark d’Inverno, Carles Sierra,
Nardine Osman, Henri Prade, Roberto Confalonieri, and **Dave de Jonge**,
WeCurate: Designing for Synchronised Browsing and Social Negotiation,
Agreement Technologies, Dubrovnik, Croatia, 2012.
- 37 Andrew Koster, Jordi Madrenas, Nardine Osman, Marco Schorlemmer, Jordi Sabater-
Mir, Carles Sierra, **Dave de Jonge**, Angela Fabregues, Josep Puyol-Gruart, and
Pere García,
U-Help: Supporting Helpful Communities with Information Technology,
Agreement Technologies, Dubrovnik, Croatia, 2012.

- 38 Matthew Yee-King, Roberto Confalonieri, **Dave de Jonge**, Nardine Osman, Katina Hazelden, Leila Amgoud, Henri Prade, Carles Sierra, and Mark d’Inverno, *Towards Community Browsing for Shared Experiences: The WeBrowse System*, Agreement Technologies, Dubrovnik, Croatia, 2012.
- 39 **Dave de Jonge** and Carles Sierra, *Negotiation Based Branch and Bound and the Negotiating Salesmen Problem*, International Conference of the Catalan Association for Artificial Intelligence, Lleida, Spain, 2011.

Publications in Workshop Proceedings

- 40 Laura Rodriguez Cima, **Dave de Jonge**, and Nardine Osman, *Towards the Incorporation of Social Values in Automated Negotiation Strategies*, VALE@ECAI, Santiago de Compostela, Spain, 2024.
- 41 **Dave de Jonge** and Dongmo Zhang, *Using GDL to Represent Domain Knowledge for Automated Negotiations*, **Most Visionary Paper**, ACAN@AAMAS, Singapore, 2016.
- 42 **Dave de Jonge** and Carles Sierra, *SIMPLE: A Language for the Specification of Protocols, Similar to Natural Language*, COIN@AAMAS, Istanbul, Turkey, 2015.
- 43 **Dave de Jonge**, Juan A. Rodriguez-Aguilar, Bruno Rosell, and Carles Sierra, *Infrastructures to Engineer Open Agent Environments by Means of Electronic Institutions*, E4MAS@AAMAS, Paris, France, 2014.
- 44 **Dave de Jonge**, *Negotiation Algorithms for Large Agreement Spaces (ext. abstract of PhD thesis)*, Doctoral Consortium@IJCAI, Beijing, China, 2013.
- 45 **Dave de Jonge** and Carles Sierra, *Automated Negotiation for Package Delivery*, TOASTS@SASO, Lyon, France, 2012.

Publications as Book Chapters

- 46 **Dave de Jonge** and Carles Sierra, *GANGSTER: an Automated Negotiator Applying Genetic Algorithms*, Recent Advances in Agent-based Complex Automated Negotiation, Studies in Computational Intelligence, pages 225-234, Springer, 2016.
- 47 Pablo Noriega and **Dave de Jonge**, *Electronic Institutions: the EI/EIDE Framework*, Social Coordination Frameworks for Social Technical Systems, pages 47-76, Springer, 2016.

- 48 Ismel Brito, Patricia Gutierrez, Katina Hazelden, **Dave de Jonge**, Lissette Lemus, Nardine Osman, Bruno Rosell, Carles Sierra, and Carme Roig, *Collaborative Peer Assessment using PeerLearn*, Music Learning with Massive Open Online Courses (MOOCs), chapter 10, pages 145-174. IOS Press, 2015.

❖ GENERAL INFORMATION

Full Name: Nardine Osman Alameh
Date of Birth: 05 October 1980
Gender: Female
Nationality: Spanish
Languages: English & Arabic (fluent), Spanish & Catalan (basic)

❖ AFFILIATION

Institute: Artificial Intelligence Research Institute (IIIA),
Spanish National Research Council (CSIC) **Position:** Tenured Scientist (Assistant Professor)
Start Date: September 2008

Research Interests: artificial intelligence, value aware AI, multiagent systems, normative systems, agreement technologies, formal verification

❖ EDUCATION

The University of Edinburgh, Edinburgh, UK **Sep. 2004 – Mar. 2008**

PhD in Informatics

Research topic: Verifying interaction & deontic models in multi-agent systems

The University of Edinburgh, Edinburgh, UK **Sep. 2002 – Sep. 2003**

MSc in Informatics

Research topic: Addressing constraint failure in agent dialogues

American University of Beirut, Beirut, Lebanon **Sep. 1997 – Jul. 2001**

B.Eng. in Computer & Communications Engineering

Summary

Dr. Nardine Osman is a Tenured Scientist at the Artificial Intelligence Research Institute (IIIA) of the Spanish National Research Council (CSIC), and a Visiting Research Fellow at the Department of Computing at Goldsmiths, University of London. She holds a PhD and MSc in Informatics from the University of Edinburgh and a BEng in Computer and Communications Engineering from the American University of Beirut.

She leads the Ethics and AI research line at IIIA-CSIC and currently directs a €1.9M national project on value engineering in AI (VAE). She co-founded, alongside Luc Steels, the VALE workshop on the topic of value engineering.

Her recent work focuses on developing AI that is aware of and aligned with human values, building on her earlier contributions to multi-agent systems, formal modelling and verification, and agreement technologies, including normative systems, trust and reputation.

Dr. Osman was the PI of one European project (WeNet) and has coordinated multiple national projects (VAE, RHYMAS and CIMBVAL, funded by the Ministry of Science and Innovation, and AppPhil, funded by RecerCaixa).

She has authored over 90 peer-reviewed publications, with more than 850 citations, published in top-tier AI conferences and journals (more than half of her journal articles appear in first-quartile venues). She has supervised five PhD students (two completed, three ongoing), and registered four software copyrights (one of which has been used in industry).

Dr. Osman serves on the editorial boards of JAIR and AI Communications. She was vice president, treasurer, and board member of EURAMAS, and has chaired major events including AAMAS 2026 Demonstration and Competition Track; IJCAI 2023's Special Track on AI for Good; VALE workshop (on value engineering) at ECAI 2023, 2024, and 2025; Agreement Technologies Conference 2016; and AAMAS 2016 Workshops. She is also a frequent reviewer of proposals and member of program committees in numerous top journals and conferences.

❖ SELECTED RESEARCH PROJECTS

VALAWAI: Value Aligned Artificial Intelligence, (# 101070930)

Funding: €3.9 M – European Commission
 Project duration: 01 October 2022 – 30 September 2026
 Role: Lead Researcher

VAE: Value-Awareness Engineering, (# TED2021-131295B-C31)

Funding: €1.9 M – Spanish Ministry of Science & Innovation
 Project duration: 01 December 2022 – 30 November 2024
 Role: Principal Investigator & Coordinator

RHYMAS: Real-time Hybrid Multiscale Agent-based Simulations for Emergency Training, (# PID2020-113594RB-100)

Funding: €76,351.00 – Spanish Ministry of Science & Innovation
 Project duration: 01 September 2021 – 31 August 2024
 Role: Principal Investigator

WeNet: The Internet of Us, (# 823783)

Funding: €6.7 M – European Commission
 Project duration: 01 January 2019 – 30 June 2023
 Role: Principal Investigator

CIMBVAL: Imbuing values in the coordination of hybrid social networks, (# TIN2017-89758-R)

Funding: €89,298 – Spanish Ministry of Economy and Finance
 Project duration: 01 January 2018 – 31 December 2020
 Role: Principal Investigator

AppPhil: Applied philosophy for the value-based design of social network apps, (# AppPhil)

Funding: €86,238 – RecerCaixa 2017
 Project duration: 30 April 2018 – 29 April 2020
 Role: Principal Investigator

PRAISE: Practice and peRformance Analysis Inspiring Social Education, (# FP7-318770)

Funding: €2.3 million – European Commission
 Project duration: 01 October 2012 – 30 September 2015
 Role: Lead Researcher

ACE: Autonomic Software Engineering for online cultural experiences, (# ACE)

Funding: €500 thousand – European Commission (CHIST-ERA Call 2010)
 Project duration: 01 September 2011 – 31 August 2013
 Role: Lead Researcher

❖ SELECTED PUBLICATIONS

This section presents a selection of Nardine Osman's recent publications. A more comprehensive list may be found on her DBLP website.

Selected Books

- [1] Nardine Osman. *Electronic Institutions: Applications to uHelp, WeCurate and PeerLearn*. Artificial Intelligence: Foundations, Theory, and Algorithms (AIFTA). Springer Cham, September 2024.
- [2] Nardine Osman and Luc Steels, editors. *Value Engineering in Artificial Intelligence - Second International Workshop, VALE 2024, Santiago de Compostela, Spain, October 19-24, 2024, Revised Selected Papers*, volume 15356 of *Lecture Notes in Computer Science*. Springer, 2025.
- [3] Nardine Osman and Luc Steels, editors. *Value Engineering in Artificial Intelligence - First International Workshop, VALE 2023, Krakow, Poland, September 30, 2023, Proceedings*, volume 14520 of *Lecture Notes in Computer Science*. Springer, 2024.

Selected Book Chapters

- [1] Nardine Osman et al. Multiagent systems. In Sara Degli Esposti and Carles Sierra, editors, *White Paper on Artificial Intelligence, Robotics and Data Science*. Consejo Superior de Investigaciones Científicas (CSIC), 2020.

Selected Journal Articles

- [1] Thiago Freitas dos Santos, Nardine Osman, and Marco Schorlemmer. Is this a violation? Learning and understanding norm violations in online communities. *Artificial Intelligence*, 327:104058, 2024.
- [2] Ignacio Huitzil, Miguel Molina-Solana, Juan Gómez-Romero, Marco Schorlemmer, Pere Garcia-Calvés, Nardine

- Osman, Josep Coll, and Fernando Bobillo. Semantic building information modeling: An empirical evaluation of existing tools. *Journal of Industrial Information Integration*, 42:100731, 2024.
- [3] Thiago Freitas dos Santos, Nardine Osman, and Marco Schorlemmer. A multi-scenario approach to continuously learn and understand norm violations. *Autonomous Agents And Multi-agent Systems*, 37(2):38, 2023.
 - [4] Nieves Montes, Michael Luck, Nardine Osman, Odinaldo Rodrigues, and Carles Sierra. Combining theory of mind and abductive reasoning in agent-oriented programming. *Autonomous Agents And Multi-agent Systems*, 37(2):36, 2023.
 - [5] Nieves Montes, Nardine Osman, and Carles Sierra. A computational model of ostrom’s institutional analysis and development framework. *Artificial Intelligence*, 311:103756, 2022.
 - [6] Nardine Osman, Ronald Chenu-Abente, Qiang Shen, Carles Sierra, and Fausto Giunchiglia. Empowering users in online open communities. *SN Comput. Sci.*, 2(4):338, 2021.
 - [7] Jones Granatyr, Nardine Osman, João Dias, Maria Augusta Silveira Netto Nunes, Judith Masthoff, Fabrício Enembreck, Otto Robert Lessing, Carles Sierra, Ana Maria Paiva, and Edson Emílio Scalabrin. The need for affective trust applied to trust and reputation models. *ACM Comput. Surv.*, 50(4), aug 2017.
 - [8] Roberto Confalonieri, Matthew Yee-King, Katina Hazelden, Mark d’Inverno, Dave de Jonge, Nardine Osman, Carles Sierra, Leila Agmoud, and Henri Prade. Engineering multiuser museum interactives for shared cultural experiences. *Engineering Applications of Artificial Intelligence*, 46:180–195, 2015.
 - [9] Patricia Gutierrez, Nardine Osman, Carme Roig, and Carles Sierra. Trust-based community assessment. *Pattern Recognition Letters*, 67:49–58, 2015. Cognitive Systems for Knowledge Discovery.
 - [10] Nardine Osman, Patricia Gutierrez, and Carles Sierra. Trustworthy advice. *Knowledge-Based Systems*, 82:41–59, 2015.
 - [11] Holger Billhardt, Alberto Fernández, Lissette Lemus, Marin Lujak, Nardine Osman, Sascha Ossowski, and Carles Sierra. Dynamic coordination in fleet management systems: Toward smart cyber fleets. *IEEE Intelligent Systems*, 29(3):70–76, 2014.
 - [12] Nardine Osman, Carles Sierra, Fiona McNeill, Juan Pane, and John Debenham. Trust and matching algorithms for selecting suitable agents. *ACM Transactions on Intelligent Systems and Technology*, 5(1):Article 16, pp. 16:1–16:39, January 2014.

Selected Conference Papers

- [1] Manel Rodriguez-Soto, Nardine Osman, Carles Sierra, Rocio Cintas-Garcia, Cristina Farriols-Danes, Montserrat Garcia-Retortillo, Silvia Minguez-Maso, and Jordi Martinez-Roldan. Towards automating the design of value-aligned clinical protocols. In *Proceedings of the 24th International Conference on Autonomous Agents and Multiagent Systems*, AAMAS ’25, page 2729–2731, Richland, SC, 2025. International Foundation for Autonomous Agents and Multiagent Systems.
- [2] Alba Aguilera, Nardine Osman, and Georgina Curto. Agent-based modeling meets the capability approach for human development: Simulating homelessness policy-making. In *Proceedings of the Thirty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2025, 16th-22nd August 2023, Montreal, Canada*, page In Press. ijcai.org, 2025.
- [3] Nardine Osman and Mark d’Inverno. A computational framework of human values. In Mehdi Dastani, Jaime Simão Sichman, Natasha Alechina, and Virginia Dignum, editors, *Proceedings of the 23rd International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2024, Auckland, New Zealand, May 6-10, 2024*, pages 1531–1539. International Foundation for Autonomous Agents and Multiagent Systems / ACM, 2024.
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- [2] Manel Rodriguez-Soto, Nardine Osman, Carles Sierra, Nieves Montes, Jordi Martinez Roldan, Rocio Cintas Garcia, Cristina Farriols Danes, Montserrat Garcia Retortillo, and Silvia Minguez Maso. User study design for identifying the semantics of bioethical principles. In Nardine Osman and Luc Steels, editors, *Value Engineering in Artificial Intelligence - Second International Workshop, VALE 2024, Santiago de Compostela, Spain, October 19-24, 2024, Revised Selected Papers*, volume 15356 of *Lecture Notes in Computer Science*, pages 22–39. Springer, 2024.
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- [4] Nieves Montes, Nardine Osman, and Carles Sierra. Perspective-dependent value alignment of norms. In Nardine Osman and Luc Steels, editors, *Value Engineering in Artificial Intelligence - First International Workshop, VALE 2023, Krakow, Poland, September 30, 2023, Proceedings*, volume 14520 of *Lecture Notes in Computer Science*, pages 46–63. Springer, 2023.
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❖ PHD SUPERVISION

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| Alba Aguilera <i>Agent-Based Simulation for Human Development</i> | <i>Expected: Fall 2026</i> |
| Laura Rodriguez <i>Value-Driven Negotiations</i> | <i>Expected: Fall 2026</i> |
| Shuxian Pan <i>Automated Convention Integration in Multiagent Systems via Large Language Models</i> | <i>Expected: Summer 2026</i> |
| Thiago Freitas dos Santos <i>A Multi-scenario Approach to Continuously Learn and Understand the Evolution of Norm Violations</i> | 20 March 2024 |
| Nieves Montes <i>Value Engineering for Autonomous Agents</i> | 01 February 2024 |

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Currently leads the **Ethics and AI research line** at IIIA-CSIC.

Currently chairs the Demonstration and Competition Tracks at AAMAS 2026.

Currently chairs the VALE workshop on value engineering in AI at ECAI 2025 (and previously, at ECAI 2024 and 2023).

Chaired the IJCAI 2023's special track on AI and Social Good.

Chaired the AAMAS 2016 workshops.

Chaired the Agreement Technologies (AT) conference in 2016.

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