

## Example of a course proposal

# Ethical Acceptability of Symbiotic AI

### Teachers

Antonio Carnevale, Antonio Lombardi

### Course Website (optional)

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### Course description (min 150, max 300 words)

The philosophical approach to AI contributes to the debate on the identification and analysis of the ethical implications of algorithms; it provides a critical method to investigate the development of the universality of computation together with the benefit that AI brings to personal and community well-being. The PhD course wants to offer an in-depth introduction to the philosophical methods for evaluating the ethical and social acceptability of symbiotic AI. This course explores the historical-philosophical perspectives on automation models and their impact on our understanding of “life” and “intelligence”. It will focus on some philosophical concepts that have become essential for AI research and its ethical repercussions, such as 'mechanism', 'mind', 'learning', 'teleology', 'autonomy' etc.

Additionally, the course will focus on the crucial human-centered approach to evaluating AI designs, ensuring respect for human rights, and enhancing user trustworthiness. We will investigate the most ethically susceptible issues, from human cognitive biases in algorithms to the kinds of deception an AI agent may learn independently.

Finally, we introduce co-design and co-creation methodologies for AI systems, fostering intersectional inclusivity and addressing potential discrimination.

### Course period

November 2023-April 2024

### SSD

INF/01 M-FIL/03 M-FIL/06

### Credits and Hours

5 credits are allocated to this course, comprising three credits for traditional classroom lectures, totaling 24 hours of instruction, and two credits for hands-on practical experience, amounting to 30 hours of active learning. In sum, this course spans a total of 54 instructional hours, organised across three distinct modules as outlined below:


- **First Module** (12 hours of lectures): Historical-philosophical fundamentals of AI: life, intelligence and machine.
- **Second Module** (12 hours of lectures): AI, Ethics and European Regulation.
- **Third Module** (30 hours of practice): Workshops on case studies (LLM, ChatGPT, robotics and exoskeletons)


## Exam Modality

- 1) Students present and discuss the main topics covered in the course, also referring to case studies.
- 2) Alternatively, Paper presentation. Students present the content of a number of papers suggested by the teacher. No groups are allowed.

## Teachers CV

### Personal Info **Antonio Carnevale**

 DIRIUM Department, Palazzo Ateneo, Piazza Umberto I – 70121, Bari  
University of Bari

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 [antonio.carnevale@uniba.it](mailto:antonio.carnevale@uniba.it) / [antonio.carnevale@dexai.eu](mailto:antonio.carnevale@dexai.eu)

 [LINKEDIN](#)

 [ORCID](#)

Gender M | Date and place of birth 04/01/1975, Flörsheim am Main (D) | Citizenship Italy

**Languages:** Italian (native), English (good), German (intermediate), Spanish and Portuguese (basic)

### Areas of specialization:

- My most recent fields of scientific specialization: Ethics and Philosophy of Technologies; Research ethics; Energy & Sustainability; Ethics & AI; Ethics & robotics; Robotics & healthcare; Critical studies of technology; STS; Technology and gender studies.
- Among my research topics, I would also mention German Idealism, Hegel, critical theory, theory of recognition, emotion theory, shame, and vulnerability.

### Current position:

- Researcher in Moral Philosophy at University of Bari, Italy (FAIR PNRR project – Future Artificial Intelligence Research, an extended partnership promoted by the National Recovery and Resilience Plan)
- Ethicist, Consultant in Philosophy, Ethics and Emerging Technology
- Co-founder of [DEXAI – Etica Artificiale](#) Srls

### Key professional experiences

- HORIZON-MSCA-2023 expert evaluator
- Co-author of a study funded by the Panel for the Future of Science and Technology (STOA) of the EU Parliament
- Ethics advisor of AIMPC (Eurostars), BEEYONDERS (Horizon Europe)
- Member of the EABs of PALANTIR; TANGO, TRUMPET, RELEVIMUM
- Ethics partner in several EU projects

## ACADEMIC EXPERIENCE

April 2022 –  
March 2024

### Postdoc Fellow in Environmental Psychology

Postdoc fellow at the **Norwegian University of Science and Technology** NTNU in Trondheim, Norway, on the H2020 research project ACCTING

June 2016 –  
December 2016

### Research Fellow in Ethics

Research Fellow in Philosophy within the project "Reliable – Regulating Ethical and Legal Issues of Advanced Bionic Limbs and Exoskeletons". Scientific manager: Dr.

Andrea Bertolini, **Sant'Anna School of Advanced Studies**, Pisa (Italy).

March 2012 –  
March 2016

### Research Fellow in Ethics and Philosophy

Position within the European project “RoboLaw: Regulating Emerging Robotic Technologies in Europe: Robotics facing Law and Ethics”, funded by FTP7 (Theme: Regulating emerging scientific and technological developments). Faculty of Social Sciences, University **Sant'Anna School of Advanced Studies**, Pisa (Italy).

October. 2011 –  
March 2012

### Research Fellow in Political Philosophy

Position at Faculty of Social Sciences, University **Sant'Anna School of Advanced Studies**, Pisa (Italy).

September 2009 –  
August 2011

### Postdoctoral Fellow in Political Philosophy

Position at Faculty of Social Sciences, University **Sant'Anna School of Advanced Studies**, Pisa (Italy).

## LAST SCIENTIFIC ACTIVITIES, COMMENTARIES

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- 2021
  - (January – July): Scientific co-director of “Corso di perfezionamento in Etica e Informatica”. University of Tor Vergata, Rome.
  - (September): Co-organizer of Panel 10: “La differenza polarizzata e il rovesciamento del tutto nelle parti: Ripensare l'universale politico nell'era della post-verità?”, Festival *La filosofia, il castello, la torre*, VII edizione, Ischia – Napoli.
- 2020
  - (October): Invited lecturer for "Artificial Intelligence: Law and Ethics of Emerging Technologies" of the European University of Rome.
- 2019
  - (June): speaker at DECON 2019: International Conference on Decision Economics, Avila, Spain, June 26-28. Title of paper (with C. Occhipinti): Ethics and Decisions in Distributed Technologies: A Problem of Trust and Governance Advocating Substantive Democracy.

## SERVICE TO PROFESSIONAL ORGANIZATIONS

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2004 – today

- Ethics advisor of AIMPC (Eurostars)
- Member of the External Advisory Board (EAB) of EU projects [Palantir](#); TANGO, TRUMPET, RELEVUM (Horizon 2020 / HORIZON Europe);
- Ethics advisor for the EU projects: [Persist](#), [Impulse](#), [BEEYONDERS](#)
- Member of Scientific Board of the *European Society of Moral Philosophy* (ESMP)
- Peer Reviewer for *Elsevier journals*
- Peer Reviewer for *Ethical Theory and Moral Practice*
- Founder and member of the Editorial Board for the book series *Politica, Critica, Società* (*Politics, Critique, Society - PCS*) published by Pensa Multimedia, Lecce (Italy)
- Peer Reviewer for *Journal of Classical Sociology*
- Member of the Scientific Board of *Revue de la Société Internationale d'Ethnographie*
- Member of the *International Research Laboratory on Conflict, Development and Global Politics*, at Sant'Anna School of Advanced Studies, Pisa
- Reviewer for *Jura Gentium – Journal of Philosophy of International Law and Global Politics*
- Member of the *Italian Society of Philosophy (SFI)*

## RECENT PUBLICATIONS

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Institutional report

1. Luigi Briguglio, Carmela Occhipinti, Antonio Carnevale, Riccardo Santilli (2022) *Privacy and security aspects of the 5G technology*. Study funded by the Panel for the Future of Science and Technology (STOA) of EU Parliament.

Journal special issues

2. Antonio Carnevale, Piercosma Bisconti, Federica Russo, Carmela Occhipinti (eds.) (2023). *Blockchain for Trustworthy Digital Identity Systems: Socio-Technical Perspectives*. Special issue of *Digital Society* (Springer).
3. Antonio Carnevale and Emanuela Tangari (eds.) (2021). *Ethics, Health Data, and Bio-Citizenship: From the Politics of Body to the Politics of Knowledge*. *Philosophical News*, no. 22.
4. Fiorella Battaglia and Antonio Carnevale (eds.) (2014). *Reframing the Debate on Human Enhancement*. Special issue of *Humana.Mente*, vol 7 no 26.

Articles and book chapters

5. Occhipinti, C., Carnevale, A., Briguglio, L., Iannone, A. and Bisconti, P. (2022),

- SAT: a methodology to assess the social acceptance of innovative AI-based technologies. *Journal of Information, Communication and Ethics in Society*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JICES-09-2021-0095>.
6. Arturo Cuesta; Daniel Alvear; Antonio Carnevale; and Francine Amon (2022). Gender and Public Perception of Disasters: A Multiple Hazards Exploratory Study of EU Citizens. In: *Safety*. 2022; vol 8, no 3, issue 59. DOI: <https://doi.org/10.3390/safety8030059>
  7. Bisconti P. and Carnevale A. (2022). "Alienation and Recognition – The  $\Delta$  Phenomenology of Human-Social Robot Interactions". In: *Techné: Research in Philosophy and Technology*, vol. 29, no.1, pp 147-171. DOI: <https://doi.org/10.5840/techne202259157>
  8. Carnevale A., Tangari E., Iannone A., Sartini E. (2021). "Will Big Data and personalized medicine do the gender dimension justice?". In *AI & Society* (2021). DOI: <https://doi.org/10.1007/s00146-021-01234-9>.
  9. Carnevale A. and Occhipinti C. (2020). "Ethics and Decisions in Distributed Technologies: A Problem of Trust and Governance Advocating Substantive Democracy". In: Bucciarelli E., Chen S.H., Corchado J. (eds) *Decision Economics: Complexity of Decisions and Decisions for Complexity*. DECON 2019. Advances in Intelligent Systems and Computing, vol 1009, pp 300-307 (Cham: Springer). DOI: [https://doi.org/10.1007/978-3-030-38227-8\\_34](https://doi.org/10.1007/978-3-030-38227-8_34)
  10. Carnevale A., Briguglio L., Tangari E., Occhipinti C. (2019). "For a "Genealogy" of the Political Debate on 5G". In: *Philosophical News*, no. 19, pp. 19-28. DOI: [10.7413/2039-7194090](https://doi.org/10.7413/2039-7194090).

## Antonio Lombardi

### PERSONAL INFORMATION

Lombardi Antonio

ORCID: 0000-0003-1803-5423

Date of birth: 16/01/1991

Nationality: Italian

URL for web site: <https://uniba-it.academia.edu/AntonioLombardi>

Mail: antonio.lombardi@uniba.it

### • EDUCATION

2019            PhD (Dissertation Title: *Una selezione spirituale? Hegel Darwin Ritchie*)  
 Philosophy and History of Philosophy/ Department of Human  
 Studies (DISUM), University of Bari/ Italy  
Name of PhD Supervisor: Costantino Esposito

### • CURRENT POSITION

2023 - Today    RtdA (Research Fellow in History of Philosophy, FAIR PNRR project –  
 Future Artificial Intelligence Research, an extended partnership promoted  
 by the National Recovery and Resilience Plan)  
 Department of Research and Innovation in Humanities (DIRIUM),  
 University of Bari/ Italy

### • PREVIOUS POSITIONS

2022            Lecturer on Contract (Methodology of reading the philosophical text)

Department of Research and Innovation in Humanities (DIRIUM),  
University of Bari/ Italy

2020 – 2021 Post-Doctoral Researcher  
Research topic: Idealism and Averroism (PRIN Averroism. History, Developments and Implications of a Cross-cultural Tradition: PRIN (National Research Project) 2017, Turin Unit, 2017H8MWHR\_1)  
Department of Human Studies (StudiUm), University of Turin / Italy

Mar-May 2018 Visiting Postgraduate Research Student  
Research Topic: British Idealism and Darwinism  
Faculty of Business, Law and Politics / School of Politics and International Studies / Centre for Idealism and the New Liberalism (CINL), University of Hull / UK

- FELLOWSHIPS AND AWARDS

2020 Regional Competition “3A3M”, Accademia Pugliese delle Scienze.  
Doctoral dissertation award

- TEACHING ACTIVITIES

Sep. 2023 Teaching Tutor – Philosophy, Doctoral Summer School “Citizenship and Freedom. Individual Decisions and Legal-Social Arrangements” of the Doctorate in Historical and Philosophical Heritage for Sustainable Innovation of the University of Bari “Aldo Moro” at the Academy Vivarium Novum (Villa Falconieri, Frascati) / Italy

2023 National Scientific Qualification (ASN) for the functions of Associate Professor in the Italian University (11/C5 - History of Philosophy)

2016-Today Assistant lecturer (History of Philosophy)  
Department of Humanistic Studies (DISUM), University of Bari / Italy

2022 Lecturer on Contract (Methodology of reading the philosophical text)  
Department of Research and Innovation in Humanities (DIRIUM), University of Bari / Italy

2018 Postgraduate teaching tutor  
Department of Humanistic Studies (DISUM), University of Bari / Italy

- ORGANISATION OF SCIENTIFIC MEETINGS

2020 Conference Series: *Percorsi Tedeschi. Filosofia e Scienza*, organised by the Italian-German Cultural Association ‘Grimm’, under the Patronage of the Embassy of Germany and the Goethe Institute, Museo Civico di Foggia (Organisers: Myrtha de Meo-Ehlert, Antonio Lombardi) / Foggia, Italy

5/12/2019 International Workshop: *Sondaggi nella filosofia della natura moderna e contemporanea* (Organisers: C. Esposito, M. Suzuki, A. Lombardi) University of Bari (Department of Human Studies) – University of São Paulo / Bari, Italy, Complesso di Santa Teresa dei Maschi

- REVIEWING ACTIVITIES

2018 – 2023 Editorial Board Member, “Quaestio. Yearbook of the History of Metaphysics” (ISSN: 1379-2547)

I have served as an external reviewer for the following journals: “Elementa. Intersections between Philosophy, Epistemology and Empirical Perspectives” (Electronic edition ISSN 2785-4426 - Print edition ISSN 2785-4558); “Futuro Classico” (ISSN: 2465-0951).

- MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2023 – Today Member, Research Network “FAIR (*Future Artificial Intelligence Research Foundation*)”

- MAJOR COLLABORATIONS

James Connelly, Colin Tyler, Christopher Fear / Topic: British Idealism / Faculty of Business, Law and Politics / School of Politics and International Studies / Centre for Idealism and the New Liberalism (CINL), University of Hull / UK

My research follows a multidisciplinary approach, which starting from the history of philosophy and metaphysics has come to investigate the relationship between philosophy and science. My research has mainly focused on: 1) Hegel’s Philosophy of nature; 2) the history of Hegelianism in Italy and Britain; 3) evolutionary theories and their philosophical implications; 4) the nature of intelligence, from Aristotelian debates up to the modern theories of consciousness and AI. On these topics, I have written several contributions, including monographs and articles in international journals, and have related at many conferences.

## Teachers Main Publications

### Antonio Lombardi

- A. LOMBARDI, *L’origine dell’io. Il “mistero” dell’intelligenza da Darwin al riduzionismo contemporaneo*, in «Studium. Rivista di vita e cultura», ISSN 0039-4130 (accepted, in publication).
- A. LOMBARDI, *Il «fattore-Hume» nella metafisica di Bontadini. Filosofia dell’esperienza e problema della causalità*, in «Rivista di filosofia Neo-Scolastica», ISSN: 0035-6247 (accepted, in publication).
- A. LOMBARDI, *Trascendenza del pensiero, impersonalità della coscienza. Hegel, T.H. Green e la critica di A. Seth Pringle-Pattison*, in «Rosmini Studies», ISSN 2385-216X (accepted, in publication).

- A. LOMBARDI, *Sul "materialismo" di Averroè. Un bilancio da Renan a oggi*, in «Intersezioni», 2 (2022), ISSN 0393-8196, pp. 231-247.
- A. LOMBARDI, *Dialettiche dell'immediato. Hegel, Gentile, Bontadini*, in «Quaderni di Inscibboleth», ISSN: 2279-9303; ISBN: 978-88-5529-310-5; ISBN e-book: 978-88-5529-335-8, XVII (2022), n. 1, numero monografico: "Dire l'immediato", a cura di A. Catalano, M. Ricciotti, pp. 35-55.
- A. LOMBARDI, *Dallo specismo allo "specificismo". Controstoria dei diritti animali*, in L. IANNONE, G. MALGIERI, *Rogero Scruton*, Historica-Giubilei Regnani, Roma 2022, pp. 203-232.
- A. LOMBARDI, *Dall'intelletto potenziale alla coscienza eterna. Aristotelismo "averroizzante" e idealismo in Thomas Hill Green*, in «Quaestio-Annuario di storia della metafisica» (Xavier Zubiri e la metafisica contemporanea), ed. Paolo Ponzio, 21 (2021), ISBN 978-2-503-59528-3 ISSN 1379-2547, pp. 369-399.
- A. LOMBARDI, *David George Ritchie. Un darwinista hegeliano nell'Inghilterra vittoriana*, Edizioni di Pagina, Bari 2020.
- A. LOMBARDI, *Gentile analitico? J.R.M. Wakefield e l'attualismo come filosofia morale*, in «Cum-Scientia», Anno I, no. 2, 2019, pp. 127-136.
- A. LOMBARDI, *Il volto epistemico della filosofia italiana. La Neoclassica di Gustavo Bontadini*, AM Edizioni, Vigonza (PD) 2018.