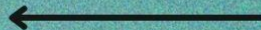


European  
Sociological  
Association



RN24/SSTNET  
*Sociology of Science  
and Technology Network*

26+27 / 11 / 25



# Technology in the face of global challenges

Faculty of Arts and Humanities  
of the University of Porto



## Day 1 - 26/11

### Sala de Reuniões 2 / Meeting Room 2

#### 09h00: Reception and Registration of Participants

#### 09h15: Opening Session

- **Paula Pinto Costa** (Director of the Faculty of Arts and Humanities of the University of Porto – FLUP)
- **Ana Isabel Couto** (IS-UP, FEP-UP; Coordinator of the IS-UP Subgroup TEPO – Work, Employment, Professions and Organisations; Member of SMEL Network – Socio Management & Economic Lusophone)
- **Melissa Sessa** (Coordinator of RN24/SSTNET – Sociology of Science and Technology Network; Institute for Geohydrological Protection of Italy, National Research Council – CNR-IRPI)

#### 09h30: Paper Session I – Governance, Trust and Perceptions of Technology and Data

Moderation: Jorge Cerdeira (IS-UP, FLUP)

1. ***Governing AI in an Age of Global Challenges: A Sociotechnical Reflection of the Ethics of Sensitive***  
Anabela da Conceição Pereira (CIES-Iscte-Instituto Universitário de Lisboa)
2. ***(In)visible Infrastructures: Data Centers in Portuguese Public Discourse***  
Jussara Rowland (INESC-ID)  
Ana Delicado (ICS-Universidade de Lisboa)
3. ***Task-Oriented or Reflexive? How Interaction Types Shape Trust in LLMs***  
Marijose Páez Velázquez (Iscte-Instituto Universitário de Lisboa)  
Elzbieta Bobrowicz-Campos (Iscte-Instituto Universitário de Lisboa)  
Patrícia Arriaga (Iscte-Instituto Universitário de Lisboa)

#### 10h30: Coffee Break

#### 10h45: Paper Session II – Education, Skills and Digital Technologies

Moderation: Cristina Parente (IS-UP, FLUP)

1. ***Perceptions and Practices Regarding the Use of Digital Technologies in Portuguese Public Higher Education: a Study Based on Active Learning Classrooms***  
Ricardo Ribeiro (Universidade do Minho)  
José Alberto Lencastre (Universidade do Minho)  
Manuel João Costa (Universidade do Minho)
2. ***The Emotional Architecture of Digital Higher Education: Learning Designers and the Transformation of Academic Authority***  
Maria Gretzky (Department of Sociology, Political Science and Communication, The Open University of Israel)
3. ***Artificial Intelligence in Continuing Training: Regulation, Ethics and Human-Centred Approaches in European and Italian Contexts***  
Alessandra Pedone (INAPP Researcher)

**11h45: Thematic Conference I – Digital Boundaries: Power, Visibility, and the Politics of Technological Control****Moderation: Jussara Rowland (INESC-ID, RN24/SSTNET)****Keynote speaker: Prof. Helena Machado (CIES-Iscte, Instituto Universitário de Lisboa)*****Facial Recognition and the Global Challenges of Artificial Intelligence***

**Abstract:** Facial recognition technologies offer a powerful lens for examining the global challenges posed by artificial intelligence. How do different actors—computer scientists, start-ups, advocacy groups, racialized communities, and artists—shape what these technologies are meant to do, and for whom? How do their practices and imaginaries travel and transform across diverse sociotechnical and cultural settings?

The presentation explores how global challenges such as inequality, governance, and justice become materialized in the infrastructures, aesthetics, and moral discourses surrounding facial technologies. It traces how ideals of fairness, transparency, and accountability circulate between innovation, activism, and art, revealing tensions between universal claims and situated experiences.

By engaging these cross-domain dynamics, this analysis highlights how the global challenges of AI-driven facial recognition are not only technical or regulatory, but deeply social and political—shaping who is recognized, who remains unseen, and whose visions of the future count.



**Helena Machado** is a Senior Research Fellow at CIES-Iscte – Centre for Research and Studies in Sociology, Iscte – University Institute of Lisbon, and a Visiting Researcher at the Centre for Research Ethics & Bioethics (CRB), Uppsala University, Sweden.

Currently, she investigates the heterogeneous networks surrounding AI and facial recognition technologies — connecting computer scientists, tech start-ups, advocacy groups, racialized communities, and artists.

She has received two European Research Council (ERC) grants: an Advanced Grant (*fAIces*, 2025–2030) and a Consolidator Grant (*EXCHANGE*, 2015–2020). Her latest books include *Ethical Assemblages of Artificial Intelligence*

(Palgrave, 2025) and *Genetic Surveillance and Crime Control* (Routledge, 2022).

**Keynote speaker: Prof. Rafaela Granja (CECS/UMinho)**

***Electronic monitoring as a sociotechnical assemblage: (in)visible dynamics***

**Abstract:** Electronic monitoring has emerged as a rapidly expanding form of carceral control. Despite its evident intersections between technology, science, control, and surveillance, it remains underexamined within science and technology studies. By interrogating the *sociotechnical imaginaries* embedded in both the promises and the practices of electronic monitoring, in this communication I conceive it as a *sociotechnical assemblage* through which particular notions of justice, (co)responsibility, and control are discursively and materially produced and enacted.

Based on such conceptual framework, coupled with sociological scholarship on (in)visibility and grounded on extensive empirical data collection in the Portuguese context, my analysis explores how electronic monitoring configures (in)visible dynamics across three interconnected axes. The first concerns social and media representations, which tend to frame electronic monitoring through high-profile judicial cases, thereby reinforcing particular moral economies of justice. The second involves political and institutional dynamics, through which electronic monitoring is stabilized by key stakeholders as an uncontested, efficient technology capable of solving complex social and carceral problems, despite the lack of empirical evidence. The third focuses on individual lived experiences of monitored individuals where the entanglements of (in)visibility, vulnerability, and autonomy are continuously negotiated in everyday life

This communication thus contributes to a critical understanding of how electronic monitoring, as a *sociotechnical assemblage*, actively reconfigures the boundaries between punishment, care, and freedom.



**Rafaela Granja** holds a PhD in Sociology from the Institute of Social Sciences at the University of Minho (2015) and is a researcher at the Communication and Society Research Centre (CECS) at the same university. Her research interests lie at the intersection of the sociology of crime and justice and the social studies of science and technology, focusing on the technological surveillance of criminalized populations at

various stages of the criminal justice system, namely: criminal investigation, electronic monitoring, and imprisonment. She was recently the coordinator of the project *E-MONITORING: Electronic monitoring in the criminal justice system: Projected futures and lived experiences* (ref. 2023.00030.RESTART), funded by the Foundation for Science and Technology (FCT), and is currently the coordinator of the CECS team participating in the European research consortium *ForMAT: Forensic Methylation Analysis Toolsets*, funded by the European Commission under the Horizon Europe programme.

**13h15: Lunch Break**

## 14h45: Thematic Conference II – New Frontiers: Work and Culture in Times of Technological Acceleration

**Moderation: Ana Isabel Couto (IS-UP, FEP-UP)**

**Keynote speaker: Prof. Hugo Castro Silva (CEGIST — Instituto Superior Técnico, ULisboa)**

### ***From Exposure to Transformation: Reflections on How AI Can Shape Work, Innovation, and Inequality***

**Abstract:** This keynote explores how artificial intelligence (AI) and digitalization are reshaping the Portuguese labor market and the broader dynamics of innovation and inequality. Drawing on recent research mapping the exposure of occupations and regions to the destructive effects of automation and the transformative potential of AI, it reveals who stands to gain and who faces greater risks in this technological transition. Building on this empirical evidence, the talk reflects on how AI can simultaneously drive innovation and growth while deepening labor market segmentation and regional disparities, highlighting the policy strategies needed to steer technological progress toward inclusive outcomes.



**Hugo Castro Silva** is a tenure-track assistant professor at Instituto Superior Técnico (IST), Universidade de Lisboa. He is also a researcher at CEGIST, the Center for Management Studies at IST, where he currently serves as a member of the Executive Board. Hugo received a PhD with honors in Engineering and Management and an MSc in Industrial Engineering and Management from IST. Though an engineer at heart, his research work is on technological change and innovation, with particular emphasis on the relationships between technology, human capital, and employment, as well as different aspects of labor market segmentation using applied

econometrics. His research work has been published in *Research Policy*, *Journal of Business Venturing*, *Small Business Economics*, and the *International Entrepreneurship and Management Journal*. He also co-authored a policy paper for the Fundação Francisco Manuel dos Santos on the exposure of the Portuguese labor market to the destructive and transformative effects of digitalization and artificial intelligence.

**Keynote speaker: Prof. Maria Teresa Cruz (FCSH/UNL)**

### ***Culture and (Hyper)Industrialization in the age of their cognitive turn***

**Abstract:** The theme of the industrialisation of culture is one of the most central to modern and contemporary critical thinking and to the institutions that underpin cultural and artistic experience throughout the 20th and 21st centuries. The critique of the culture industry is intertwined with the very core of critical theory, as it unmasks the most audacious project

of the modern economy—the industrialisation of the human spirit. The threat that such advances pose to art, and the role of resistance assigned to art, remain among the most indisputable principles of cultural discourse. However, the recent developments in automation —resulting precisely from the industrialisation of the spirit or human intelligence—seem to threaten the cultural industries directly, more than the arts themselves, a paradigm we will designate as the hyper-industrialisation of culture in the age of its cognitive turn.



**Maria Teresa Cruz** is associate professor at the Communication Sciences Department of NOVA University of Lisbon, coordinator of the Doctoral Strand on Contemporary Culture and New Technologies and head of the Research Group on Culture, Mediation and Arts at the ICNOVA - Institute of Communication. Her research and published work focus on contemporary art and culture, media aesthetics and theory.

#### 16h15: Coffee Break

#### 16h30: Paper Session III – Technology, Inequality, and Environmental Sustainability

Moderation: Francisca Teixeira (IS-UP)

**1. *Moral Robo-advisors: Imaginaries of Algorithmic Commensuration in Social Sustainable Investment (SSI)***

Zeev Rosenhek (Department of Sociology, Political Science and Communication, The Open University of Israel)

Maria Gretzky (Department of Sociology, Political Science and Communication, The Open University of Israel)

**2. *Understanding Digital Inequalities in Later Life in Portugal Through the Digital Capital Framework***

Fábio Anunciação (ISCSP-ULisboa)

Carla Cruz (ISCSP-ULisboa)

## Day 2 – 27/11

### Sala de Reuniões 1 / Meeting Room 1

#### 10h00: Closing Session

- **Virgílio Borges Pereira** (Director of the Sociology Department of FLUP)
- **João Teixeira Lopes** (Coordinator of the Sociology Institute of the University of Porto)
- **Stefania Capogna** (Co-coordinator of RN24/SSTNET – Sociology of Science and Technology Network; Scientific Director DITES Research Centre, Link Campus University)
- **Cristina Parente** (IS-UP, FLUP; coordinator of SMEL Network – Socio Management & Economic Lusophone)
- **Allan Claudius Queiróz Barbosa** (PPGIT/FACE/UFMG; coordinator of SMEL Network – Socio Management & Economic Lusophone)

#### 10h30: Closing Conference

**Moderation: Gonçalo Marques Barbosa (IS-UP, RN24/SSTNET)**

**Keynote speaker: Gabriel Osório de Barros (Deputy Director of PLANAPP – Centre for Planning and Evaluation of Public Policies)**

***Artificial Intelligence and the future of public governance: ethics, capacity and collective intelligence***

#### **Abstract**

Artificial intelligence (AI) has emerged as a powerful tool for public governance, promising to enhance the diagnosis, monitoring and evaluation of policies across the policy cycle. For example, AI can analyse large datasets to flag emerging problems, target interventions (e.g., segmenting communities for vaccination campaigns) and personalize public services in education or social welfare. Likewise, in smart-city initiatives AI optimizes urban services – from traffic and energy use to public safety. In Portugal, the public planning agency PLANAPP has piloted AI for “better regulation,” automating legislative impact assessment under the EU-funded AI4IA@EU project. These innovations can make government more evidence-based and responsive.

Yet integrating AI into statecraft poses serious ethical and institutional challenges. The quality and representativeness of government data must be ensured to avoid biased outputs, while opaque algorithms risk undermining public trust if decisions lack explainability. Hence algorithmic literacy and human oversight are essential: AI should complement human expertise, not replace it. Portugal is updating its AI strategy and it is essential to build cross-sector collaboration to comply with the EU’s AI Act, which adopts a risk-based approach and stresses “human-centric” AI with robust protections.

Properly governed, AI can support more inclusive, transparent and evidence-driven policymaking. For instance, AI-powered text analysis can synthesize public feedback during consultations, amplifying diverse voices and real-time monitoring tools can detect when policies deviate from targets. But we must guard against key risks: algorithmic bias, opacity or the “automation of exclusion” unless mitigated by accountability mechanisms.

In summary, the promise of AI for public governance hinges on balancing innovation with equity and oversight. This talk argues for evolving toward a collective-intelligence model, one where data-driven tools and democratic deliberation reinforce each other to improve state capacity and citizen trust.



**Gabriel Osório de Barros** is a PhD candidate in Public Policy at ISCTE – University Institute of Lisbon, currently in the thesis elaboration phase (since 2023). He holds a Master’s degree in Economics and Public Policy from ISCTE (2008), a Master’s degree in Management from Universidade Lusíada (2007), a Master’s degree in Financial Management from Universidad de Extremadura (2002), a Postgraduate diploma in Public Sector Administrative Management from the University of Évora (2001), and a Bachelor’s degree in Economics from the University of Évora (2000).

He is currently Deputy Director at PLANAPP – Centre for Planning and Evaluation of Public Policies (2025–present). He previously served as Deputy Director at GEE – Office for Strategy and Studies of the Ministry of Economy (2024–2025), Director of Economic Analysis Services at GEE (2019–2024), Head of the Multidisciplinary Team for Policy Evaluation and Planning at GEE (2017–2019), and Senior Officer at GEE (since 2016). Among other positions, he was Chief of Staff to the Minister of Solidarity, Employment and Social Security (2012–2015), Advisor to the Minister of Agriculture, Sea, Environment and Spatial Planning (2011–2012), Parliamentary Advisor on Budget and Finance at the Portuguese Parliament (2010–2011), Senior Consultant in the tax area at Ernst & Young (2008–2009), and Officer at the Directorate of Services for Fraud Investigation and Special Actions (2006–2008 and 2009–2010), as well as at the Tax Offices of Vila Viçosa and Lisbon-11 (2000–2006), within the Portuguese Tax Authority.

He has participated in several national and international working groups, as well as scientific and editorial boards, and has been a speaker at numerous seminars and webinars. He has also lectured at universities in the fields such as public budgeting, digital transformation and cybersecurity. He is the author and co-author of various papers, studies, and articles.

