

CARPE Symposium

Porto, 2025

Special Interest Group: Data Science & AI

In the rapidly changing field of Artificial Intelligence, this SIG brings together researchers, lecturers, and doctoral students active in the field. The main goal of the SIG for Data Science and Artificial Intelligence is to engage in research and development activities aimed at advancing innovative approaches in the field of data science and AI. Our focus is on the human-centered and fair use of these technologies.

It is our objective to develop interdisciplinary solutions that utilise the potential of AI, Data Science and machine learning in a manner that is both ethically responsible and socially relevant. Rooted deep within technology, this SIG combines several fields of research, including computer science, social sciences, humanities and others.

Our target is to develop systems that prioritise the needs of diverse humans, encompassing, e.g., (social) robots, assistive technologies, intelligent companions, and personalised recommendation systems. We believe in the value of interdisciplinary collaboration and encourage the exchange of ideas between computer sciences, social sciences, cognitive science, economics, law, and other relevant fields to research and develop comprehensive and practical solutions.

We would like to advance AI and data science in a manner that not only enhances efficiency and user well-being but also incorporates ethical, legal, social, and cultural considerations. There is a particular focus on transparency, meaningful control, fairness, and inclusion, with the aim of fostering a sustainable future through technological innovation.



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Goals

The goal of this special interest group is to (not exhaustive):

- Exchange ideas and results of innovations in the field of AI and data science, with particular interest in human-centered AI, sustainable data science, imaging, vision, autonomous navigation;
- Facilitate network-building to foster cooperative research activities on these topics;
- Discuss and exchange education resources, e.g., joint minor or exchange programmes, learning materials, etc.;
- Facilitate network-building between educators and researchers with similar ideas on the development of (human-centered) AI or Data Science innovations;
- Discuss and exchange ideas on the potential for joint-lab activities, for sharing hardware, computing power, data sets, etc.

Topics

The special interest group is interested in a number of topics, including (but not limited to) the following:

- Human-centered Artificial Intelligence, including technological research and development of Ethical, Legal, and Social aspects (ELSA) of AI;
- AI and Data Science research and development, with a particular aim to uphold the UN Sustainable Development Goals (SDGs);
- Imaging, Vision, and Autonomous Navigation: Research and development of advanced perception, image processing, and navigation techniques for intelligent systems, with applications in robotics, autonomous vehicles, and assistive technologies;
- Education and/or (post-education) training of professionals in the fields mentioned above (i.e., AI literacy);
- Lab sharing, such as hardware, computing power, data sets.



CALL FOR CONTRIBUTIONS:

SPECIAL INTEREST GROUP ON DATA SCIENCE & AI AT THE CARPE CONFERENCE 2025

Dear colleagues,

The CARPE Conference 2025, taking place from May 14–16, 2025, offers a unique opportunity to collaborate and advance the development of Data Science and Artificial Intelligence (AI). As part of the conference, the Special Interest Group (SIG) on Data Science & AI invites your contributions to foster innovation and cooperation within our network.

About the SIG on Data Science & AI

Our objective is to develop interdisciplinary solutions that utilize the potential of AI, Data Science, and Machine Learning in a manner that is both ethically responsible and socially relevant. This SIG brings together researchers, lecturers, and doctoral students active in the field, with the goal of advancing innovative approaches in AI and Data Science.

We focus on human-centered and fair use of AI technologies, ensuring they are transparent, inclusive, and socially beneficial. Our work is deeply rooted in technology and integrates multiple research domains, including computer science, social sciences, humanities, and other relevant disciplines.

At the CARPE Conference 2025, we seek contributions that align with these objectives and help strengthen research collaborations, educational cooperation, and the impact of our SIG.

Conference Sessions

We have allocated three **1.5-hour sessions** for the **SIG Data Science & AI**, each focusing on a specific theme, some of the sub topics might shift to other sessions depending on the number of submissions.

Session 1: Connecting Ongoing Research and Shared Lab Opportunities

This session focuses on **strengthening collaboration between research groups at partner universities**. We invite contributions that:

- Highlight ongoing **AI and Data Science research projects** that could benefit from collaboration.
- Propose opportunities for **shared research facilities, data infrastructures, or AI labs**.
- Explore possibilities for **joint funding applications** (e.g., Horizon Europe, Erasmus+, Interreg).

This session is an opportunity to **connect researchers, explore synergies, and establish long-term collaborations** across the CARPE network.

Session 2: Enhancing Cooperation in Education

This session focuses on **strengthening educational cooperation** within the CARPE network in the fields of **Data Science and AI**. Contributions may explore ideas for:

- **Erasmus+ projects, joint curriculum development, and AI & Data Science literacy programs.**
- **Best practices in AI and Data Science education**, including online and hybrid learning models.
- **Upskilling and professional training** for students, researchers, and professionals.
- **Collaborative teaching initiatives**, such as joint degree programs or shared course materials.

We welcome contributions that aim to improve **AI education across disciplines and institutions**.

Session 3: Strengthening Collaborations, Connecting with Other SIGs, and Innovating the SIG on Data Science & AI

This session invites contributions aimed at **enhancing interdisciplinary collaboration and innovating the SIG's structure and activities**. In particular, we seek ideas that help connect the **Data Science & AI SIG** with other SIGs, such as **Health, Smart and Sustainable Cities**, to explore how AI and Data Science can contribute to advancements in these fields.

Possible contributions include:

- **Joint research/ education projects and funding proposals.**
- **How AI and Data Science as a methodology will impact your field**
- **Regular knowledge exchange sessions, special issues, or joint publications.**
- **Collaborative initiatives between different SIGs**, exploring cross-cutting themes like AI in healthcare, sustainability, and policy-making.

This session is open to ideas that can make the SIG more impactful and effective while strengthening connections across the CARPE network.

What We Expect from Your Contribution

To ensure engaging and productive sessions, we kindly ask contributors to provide a **short description (abstract) of their ongoing work and potential contributions**. Specifically, we ask participants to outline:

- **Current projects and expertise** – What are you already working on within AI and Data Science?
- **Collaboration opportunities** – On which research projects, educational initiatives, or other activities can we collaborate?

- **Resources and knowledge you can bring** – What expertise, data, or facilities can you offer to the network?
- **Expertise sought** – Specify the skills, knowledge, or partners needed to bring your idea to fruition.

This will help us **map ongoing initiatives** within the SIG and identify potential synergies between members and other SIGs.

Submission Guidelines

- **Deadline for submission:** April 6th, 2025
- **Format:** Abstracts (up to 300 words) describing your ongoing work and potential contributions, including the details outlined above.
- **Submission:** Please send your contributions via [link](#).
- **Short presentations:** presentations should be about 5 minutes; interesting topics for the SIG will be invited to one of the lunch lectures of the SIG after the CARPE conference.

This is your chance to **connect with peers across the CARPE network**, leverage funding opportunities, and drive forward impactful projects in **AI and Data Science research and education**.

For more information about the **CARPE Conference 2025**, visit the CARPE [website](#).

We look forward to your inspiring ideas and active participation in the **SIG on Data Science & AI** at CARPE 2025!

On behalf of the (co-)leads from CAPRE, SIG Data Science & AI:

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