

# ESPO Annual Conference: AI for Research

## Schedule

**10:30 – 11:00** Coffee

**11:00 – 12:30** Lecture *Christian Rauh* (Turnzaal)  
Introduction Soetkin Verhaegen

**12:30 – 13:30** Lunch

**13:30 – 15:30** Hands-on Skills workshops

See description of the workshops below please register for one [here](#)

Option 1: Thomas Smits (UvA) - *A new lens on the past: multimodal AI and historical image collections* (GG76 1.12)

Option 2: Lauren Leek (EUI) - *Text Classification with LLMs: A Hands-on Workshop* (GG76 1.14)

Option 3: Arnoud Wils (The Plant) – *Using Language Models (LLMs) to extract structured data from scanned materials or unstructured OCR'd PDF documents* (GG76 1.16)

**15:30-16:00** Coffee

**16:00-17:30** Lecture Thomas Smits (UvA) (Turnzaal)  
Introduction by Aleksandra Kormonicka

**17:30 – 19:00** Dinner (VeerMestreech)

Please register up [here](#)

**19:00 – 22:00** Election Panel and live results Dutch Election (Turnzaal) + drinks

- Betto van Waarden
- Luana Russo
- Karin van Leeuwen
- Esther Versluis (Chair)

### **Thomas Smits (UvA) - *A new lens on the past: multimodal AI and historical image collections***

In this workshop, participants will discover how multimodal AI can be used to explore and analyze large collections of historical photographs. We focus on the DOCUMERICA collection: 22,000 photographs commissioned by the Environmental Protection Agency (EPA) between 1972-1977 to document “environmental issues.” The central question we investigate is: what do you actually photograph when you want to capture environmental issues? Multimodal AI makes it possible to approach this question on a large scale and to investigate what new visual language the EPA photographers developed. By applying multimodal AI models, trained on millions of image-text combinations from the years 2010-2020, to historical material, we can also learn more about ‘our’ image of the climate crisis. In the workshop, participants themselves apply multimodal AI using Jupyter Notebooks.

### **Lauren Leek (EUI) - *Text Classification with LLMs: A Hands-on Workshop***

This interactive workshop combines theoretical foundations with practical applications of Large Language Models (LLMs) for text classification tasks in social sciences. It also offers the possibilities to start working with your own data. You will learn how to pre-process data, set up a classification pipeline, and troubleshoot common issues. The workshop will also cover a limited amount of advanced topics such as improving classification accuracy and ethical considerations.

### **Arnoud Wils (The Plant) – *Using Language Models (LLMs) to extract structured data from scanned materials or unstructured OCR'd PDF documents***

The vast body of past socio-economic historical research, including monographs, journal articles and research papers, represents a wealth of meticulous bibliographic and scholarly research. However, a significant proportion of this valuable material exists only as scanned images or unstructured OCR'd PDF documents, posing a challenge to contemporary researchers seeking to make full use of these findings. This limitation hinders the seamless integration of established knowledge with newer discoveries and state-of-the-art computational quantitative analysis methods. In this workshop, we will explore the power of today's state-of-the-art Large Language Models (LLMs) to extract structured data from unstructured source materials and make it suitable for further structured analysis. We will work in a hands-on way, using an interactive notebook where you will get your feet wet with some basic coding scaffolds and sample datasets, allowing you to try out the potential of LLMs in a practical and real-world way.