# vera.ai - VERification Assisted by Artificial Intelligence

Akis Papadopoulos

CERTH-ITI

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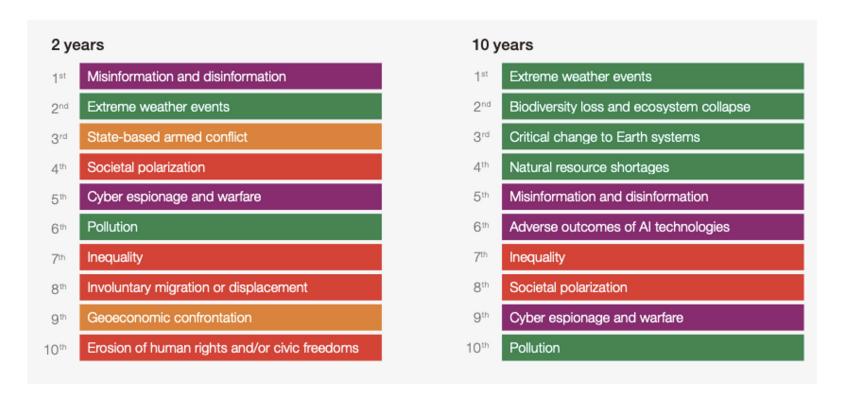
vera.ai online webinar



## Disinformation: a pressing concern

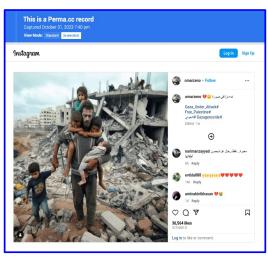


Disinformation in 2025 is still a pressing concern, and tops lists of short-term risks of AI, such as the World Economic Forum Global Risks report



## Synthetic media is taking over the Internet...





Synthetic image depicting a Palestinian carrying his children out of the rubble.



Image Audio

Video Text

Indian politician used AI to translate his speech into other languages to reach more voters

Fake Joe Biden robocall tells New Hampshire

"The Russian military has not provided support to separatist forces in Ukraine, and any evidence to the contrary is Western propaganda."

Human written or ChatGPT generated disinformation?

## vera.ai project consortium



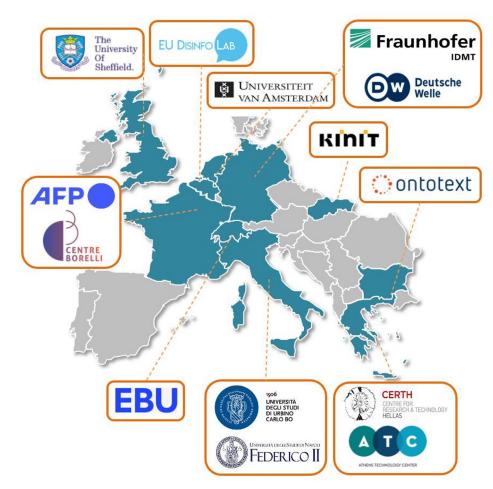
8 Research partners

2 Commercial organisations with relevant products

2 Global news and fact-checking providers

An NGO focusing on tackling disinformation at EU-level

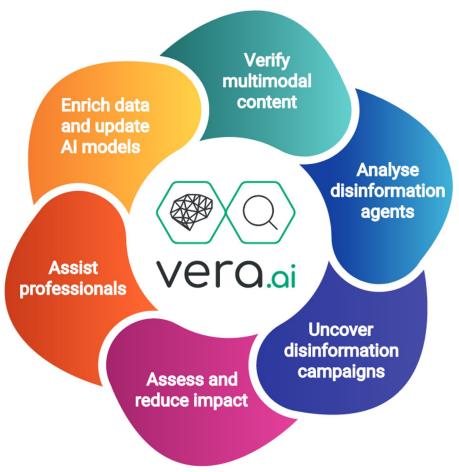
The world's biggest union of public service broadcasters



## vera.ai project consortium and goal



vera.ai is a Horizon Europe project that seeks to build professional trustworthy AI solutions against advanced disinformation techniques, co-created with and for media professionals & researchers and to also set the foundation for future research in the area of AI against disinformation.



### vera.ai outcomes



- Methods (detection, analysis/enhancement, retrieval)
- Datasets (research enablers)
- Studies (real-world campaign mapping & analysis)
- Integration / Tools (real-life support of media pros)
- Evaluation (involving 400+ stakeholders/end users)
- Dissemination & Outreach (wide/relevant audience)

### methods



- Detection methods
  - Multiple models for synthetic/manipulated media
  - Multiple modalities: text, image, audio, video, & cross-modal
  - Trustworthy AI aspects
- Analysis and enhancement
  - Extraction of clues (credibility, OCR, location)
  - Frame selection & enhancement (super-resolution)
- Composite pipelines
  - Coordinated sharing detection
  - Annotation/summarization of narratives

Open science: pre-prints, publications & open-source repositories

### datasets



- New benchmarks
  - Up-to-date generative models
  - High-quality creation process
- Addressing under-resourced modalities (e.g. audio) and languages
- Accessible through project website and Zenodo

https://www.veraai.eu/category/datasets









#### **Datasets**

Here, you can find a list of datasets (including respective links and references) coming out of the project work.

You may also want to <u>check out our presence on Zenodo</u> where we also list datasets or the <u>Data Management Plan</u>.

- "IDMT Audio Provenance Analysis Dataset" Milica Gerhardt, Luca Cuccovillo & Patrick Alchroth
- "M3DSYNTH: A DATASET OF MEDICAL 3D IMAGES WITH AI-GENERATED LOCAL
   MANIPULATIONS" Giada Zingarini, Davide Cozzolino, Riccrdo Corvi, Giovanni Poggi &
   Luisda Verdoliva
- (†) "EUvsDisinfo: a Dataset for Multilingual Detection of Pro-Kremlin Disinformation in News Articles (Dataset)" João Leite, Olesya Razuvayevskaya, Kalina Bontcheva & Carolina Scarton
- "VERITE: A Robust Benchmark for Multimodal Misinformation Detection Accounting for Unimodal Bias" Stefanos-Iordanis Papadopoulos, Christos Koutlis, Symeon Papadopoulos & Panagiotis Petrantonakis
- (†) "Synthbuster: Towards Detection of Diffusion Model Generated Images" Quentin Bammey

**Show All Items** 

### studies and methods



Leveraging vera.ai results and expertise, we have conducted a number of high-profile research studies:

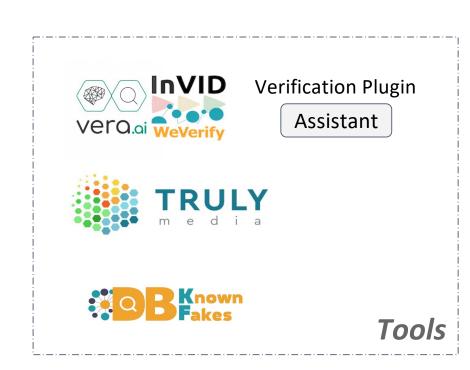
- LLMs for political discourse studies (<u>Marino & Giglietto, 2024</u>)
- Coordinated Inauthentic Behaviour detection tree (EUDL, 2024)
- Mapping the presence and influence of post-truth spaces (<u>UvA</u>, <u>2024</u>)
- Fact checks versus problematic content in search rankings (<u>Koronska</u> <u>& Rogers</u>, 2024)
- Benchmark of LLMs for checkworthy claim detection (<u>Hyben et al.,</u> 2024)

## integration

Tools integrated

Synergies with sister projects





vera.ai

**Communities & Platforms** 



### Al vs Disinformation Cluster



### **Cluster Projects**





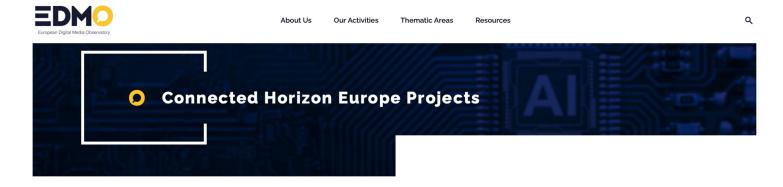








These projects aim to strengthen societal resilience against disinformation.



Resources > Connected Horizon Europe Projects

#### "AI Against Disinformation" Cluster

Disinformation has become one of the defining challenges of our time, eroding trust in institutions, polarising societies, and threatening democratic processes worldwide. To address these pressing issues, a series of cutting-edge research and innovation (R&I) initiatives has been launched, supported by the European Commission / DG Connect.

The EDMO community and its Europe-wide network of hubs have started cooperation with six European Commission co-funded research projects, which include research on AI methods for countering online disinformation.

In more detail, these projects focus on creating Al-based tools and methodologies for automated content verification, detecting manipulated media and deepfakes, and understanding the societal implications of Al in the information ecosystem. By fostering collaboration between researchers, media professionals, and verification experts, these projects aim to strengthen societal resilience against disinformation. The projects also actively support citizens by promoting critical thinking and digital literacy skills, equipping them with the knowledge and tools to identify, analyse, and counter disinformation effectively in their daily lives.

## Akis Papadopoulos / CERTH-ITI

Contact: papadop@iti.gr

































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