TUAI PROJECT · RESEARCH WORKSHOP W1.1 · CALL FOR DOCTORAL CANDIDATES

Deep Visual Analytics

Towards an Understanding of Artificial Intelligence via a transparent, open and explainable perspective

WHEN
6 Nov 2026 – 29 Jan 2027
Project months 18–21

FORMAT
Online sessions
Bi-weekly

WHO
All TUAI DCs
Group + individual work

What is deep visual analytics?

Deep visual analytics (DVA) combines deep learning with interactive visualization to explore, explain and understand data and models. It is highly **domain-dependent**: the techniques used for images differ from those for graphs, time series, text and other data.

The workshop aims for each DC to **go deeper into the DVA techniques of their own thesis domain**, while gaining a general understanding of how DVA applies to the domains of their colleagues.

What is a research workshop?

A three-month programme of regular meetings based on **problem-based learning**: a student-centred approach in which DCs tackle real, open-ended challenges instead of attending lectures.

You will work in small groups with DCs from similar domains, guided by a UPM supervisor, and finish by presenting how DVA fits into your own thesis. Where the results are promising, groups may continue towards a **joint publication**.

How it works: four phases

1
Presentation
Organisation of the workshop and a masterclass: *What is deep visual analytics?*

2
Group formation
DCs with similar domains form groups and choose which part of the state of the art to explore.

3
State of the art
Each group researches the SOTA of DVA in its domain and teaches its findings to the other DCs.

4
Applied
Each DC presents individually how DVA will be applied in their own thesis.

First session: Friday 6 November 2026 — workshop introduction and masterclass *What is DVA?* Start thinking about which colleagues share your domain. Full calendar and tasks overleaf.

This project has received funding from the European Union's Horizon Europe research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101168344 (HORIZON-MSCA-2023-DN-01-01).

TUAI RESEARCH WORKSHOP W1.1

Deep Visual Analytics

Calendar

All sessions online · ≈ approximate date, to be confirmed

6 Nov
Fri · 2026
1 · PRESENTATION

Workshop introduction + Masterclass: What is DVA?
Organisation, phases and expectations of the workshop.
10:00 CET (Madrid, UTC+1) · Zoom: upm.zoom.us/j/86107545468

23 Nov
Mon · 2026
1 · PRESENTATION

Masterclass: Making quality visualizations
By this date, DCs should have formed their groups.
14:00 CET (Madrid, UTC+1) · Zoom: upm.zoom.us/j/84615234389

24 Nov
Tue · 2026
2 · GROUPS

Group proposals: SOTA to be studied (5 min per group)
Each group presents which part of the DVA state of the art it will explore. A UPM supervisor is assigned to each group.
14:00 CET (Madrid, UTC+1) · Zoom: upm.zoom.us/j/85690380040

≈ 11 Dec
Fri · 2026
3 · SOTA

Check-up session with UPM supervisors
Review of each group's progress. Key decision: is a publication feasible or desirable?

17–18 Dec
Thu–Fri · 2026
3 · SOTA

DCs' masterclass: SOTA presentations by the groups
Each group teaches its SOTA to the other DCs (one or two days). Groups aiming for a publication keep working on it.

≈ 15 Jan
Fri · 2027
4 · APPLIED

Individual DVA proposal for your thesis
Check-up with UPM supervisors on how DVA will be used in each thesis. Publication-related topics can also be discussed.

28–29 Jan
Thu–Fri · 2027
4 · APPLIED

DCs' masterclass: final individual presentations
Each DC presents how they use DVA in their thesis, followed by discussion and feedback from colleagues (two days).

WHAT YOU HAVE TO DO

1. Join a **group** of DCs with a similar data domain.
2. Present your group's **SOTA proposal** (5 min, 24 Nov).
3. Research and **present the SOTA** as a group (17–18 Dec).
4. Prepare your individual **DVA proposal** for your thesis (≈15 Jan).
5. Give your **final individual presentation** (28–29 Jan).

ORGANISERS (UPM)

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