Who we aim to reach

Our work focuses on creating an impact through effective outreach. Our goal is to share our results with the right people and help shape a democratic society.

Citizen Labs

Together with our partner DialoguePerspectives e.V., we host multiple Citizen Labs, where we discuss our results and their implications for the real world. This format enables us to obtain feedback, foster digital citizenship, and build bridges between academia and society.

TWONy Demonstrators

We want to make our models tangible and show citizens how Online Social Networks operate. Try out our demonstrators macroTWONy, microTWONy, and ethicsTWONy on our website!

www.twon-project.eu/twony

TWON is an interdisciplinary project conducted by an EU-wide research consortium.

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twin of online social networks

Online Social Networks influence what we see and how we act.

Decisions regarding platform design are often based on economic considerations. This is why social media platforms focus on maximizing attention. Emotions such as fear and anger are rewarded, while facts and diverse opinions become secondary, which undermines democratic discourse.

There is a growing demand for platforms that foster democratic discourse rather than harm it. Further research is needed to study the effects of platform design and develop effective countermeasures.

However, the data provided by the platforms is often incomplete, intransparent, or inaccessible. This makes it difficult for both policymakers and researchers to respond to the demands of society.

This is where TWON comes in.

A Twin of Online Social Networks

Our project aims to study the potentially harmful effects of Online Social Networks (OSNs) on democratic debates using a new and unique research approach. In TWON, we create a digital twin of an OSN and populate it using generative Artificial Intelligence (AI). This approach is independent from the good will of companies like X, Meta, or TikTok.

Large Scale Simulations

In our Large-Scale Simulations, we analyze the effects of specific platform design and ranking algorithms on opinion dynamics and the quality of discourse, combining our network modeling with our generative agents.

What we do

Network Modeling

OSNs are logical models. For building the TWON, we model the network mechanics, but also the user behavior:
What posts do users see?
Which behavior is rewarded and how?
When do users choose to write, like, or comment a post?

Generative Agents

The synthetic generative agents form the virtual population in our platform simulations. Powered by generative AI, they create or interact with content, mimicing authentic users. We calibrate them using empirical data to make them act as realistic as possible.

Case Studies

We explore the impact of platform mechanics (such as algorithmic design) on opinions, debates, and dialogues of real users in Serbia about the war in Ukraine, and in Germany about health topics.

Debate Quality Metrics

To study the effect of platform design, we developed a metric to measure debate quality. Key indicators are:
(1) Exposure to political content
(2) Engagement with political content
(3) Contributing political content
(4) Diversity of exposure
(5) Quality of exposure.

Scan for more technical details: