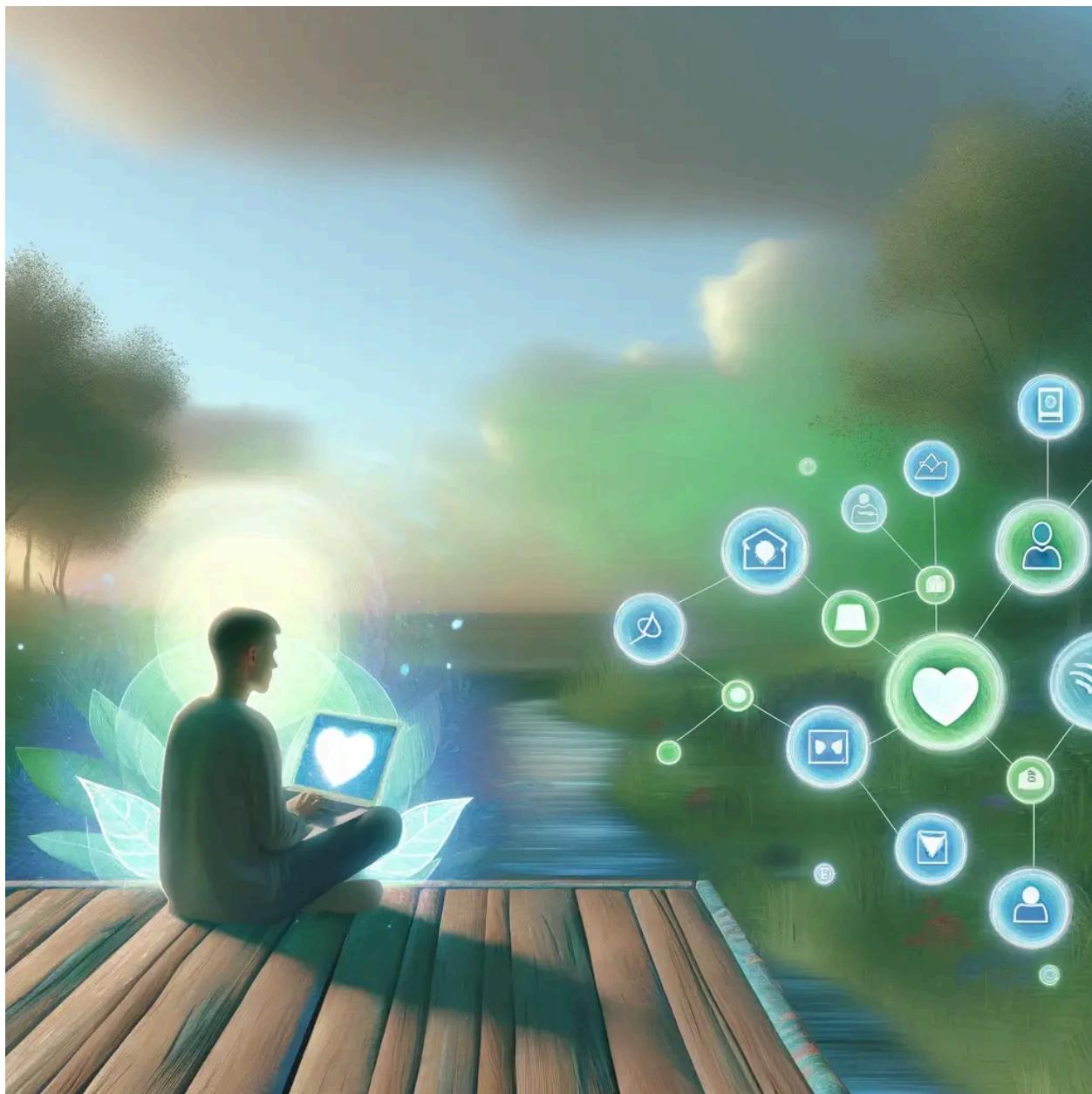


# AI, Social Media, and Mental Health

Data Science Research

*Greetings!*



We are a group of Data Scientists and we want to present our research about mental health in the digital era.

## **Why?**

We are like many people, who use the Internet, Social Media and AI these days. We have found our own concerns about how to use these tools wisely, conductively and how to prevent negative impact, risks and digital addiction. This is an important topic, we do care about. And that's why we have conducted our research.

## **Who are we?**

We are a group of Data Scientists and we are from the MIT Emerging Talent community. We have been studying within the 2023 - 2024 cohort of this program. This community unites talented individuals across the globe with similar mindsets and a desire to make a positive contribution to our environment.

Our team is: [Oleksiy Bezruchenkov](#), [Maab Taha](#), [Yuliia Sych](#), [Adla Abou Steiti](#), [Denys Savytskyi](#), [Wagar Adil](#), [Pavlo Iakymenko](#), [Polina Samsonova](#)



## The Problem

For the past couple of years a topic that has been trending is AI chatbots such as ChatGPT, and Gemini, which not only brings great benefits, but contains hidden dangers as well.

Nowadays we could spend more time chatting with AI than we do with real people. With the increasing use of social media, and AI, we are becoming more vulnerable to digital addiction.

## The Research

Our full and detailed research can be found in our [GitHub Repository](#)

Currently, open data about the influence of AI on mental health is unavailable, so we've chosen to initially focus on social media's influence. Our findings on social media's impact offer valuable insights into the potential effects of AI. We also explored Google Trends related to AI requests and ran an AI simulation.

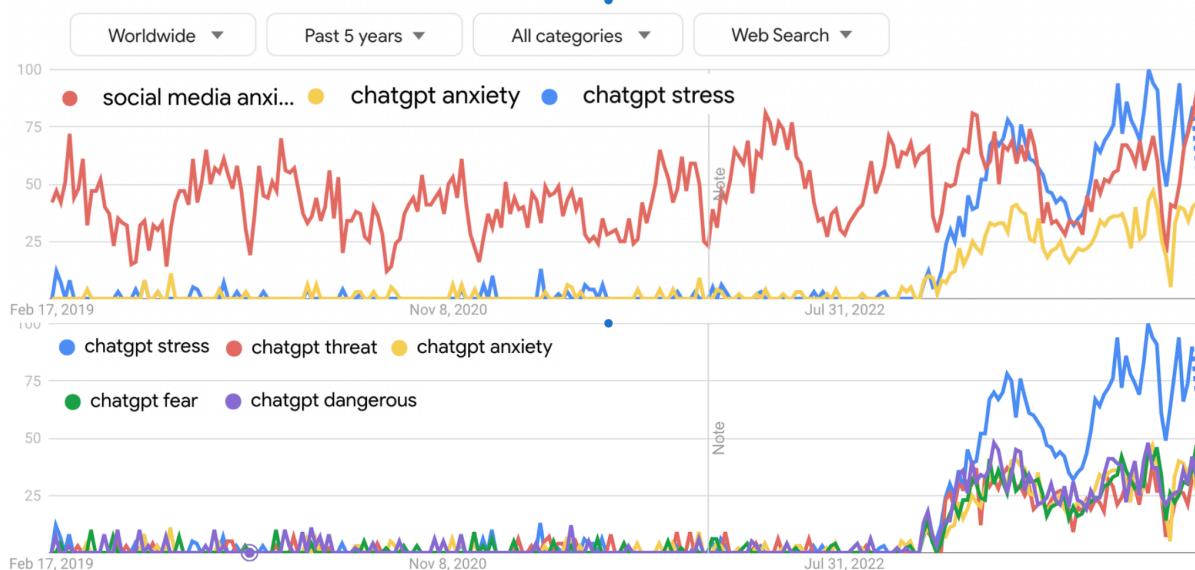
# Asking the Data

We explored the following datasets:

- *Google Trends*
- *Global Trends in Mental Health*
- *Social Media Impact*

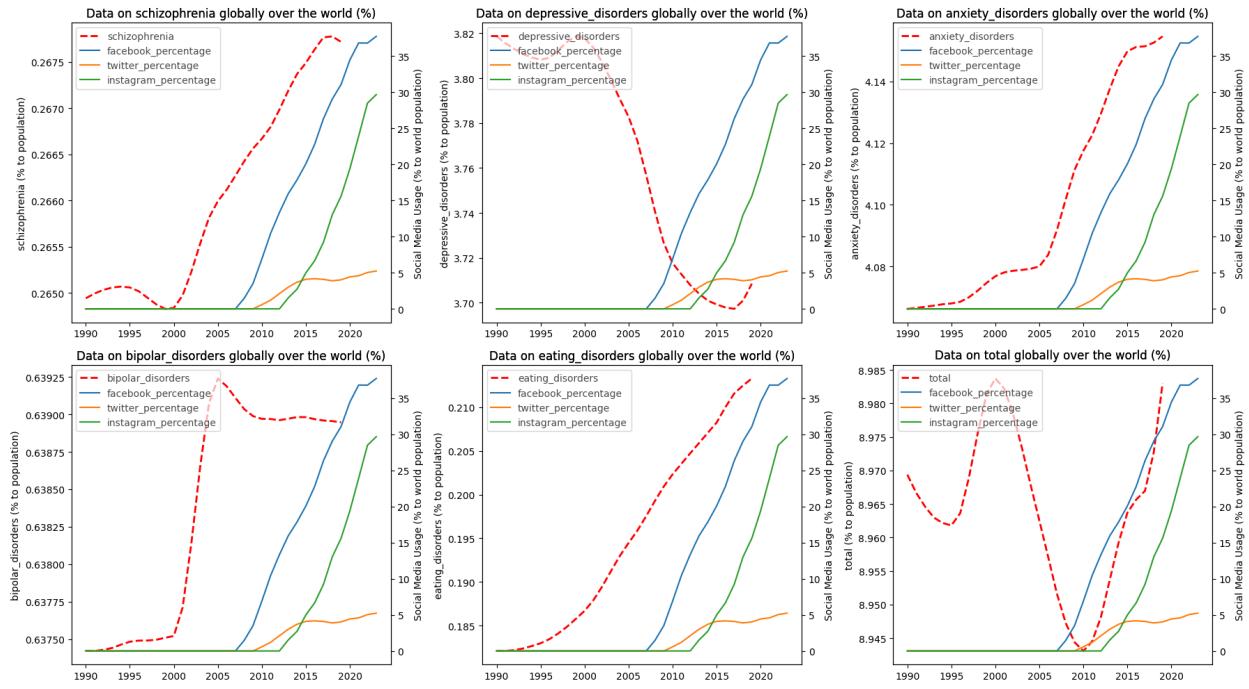
We ran a *ChatGPT simulation*

## 1. Google trends



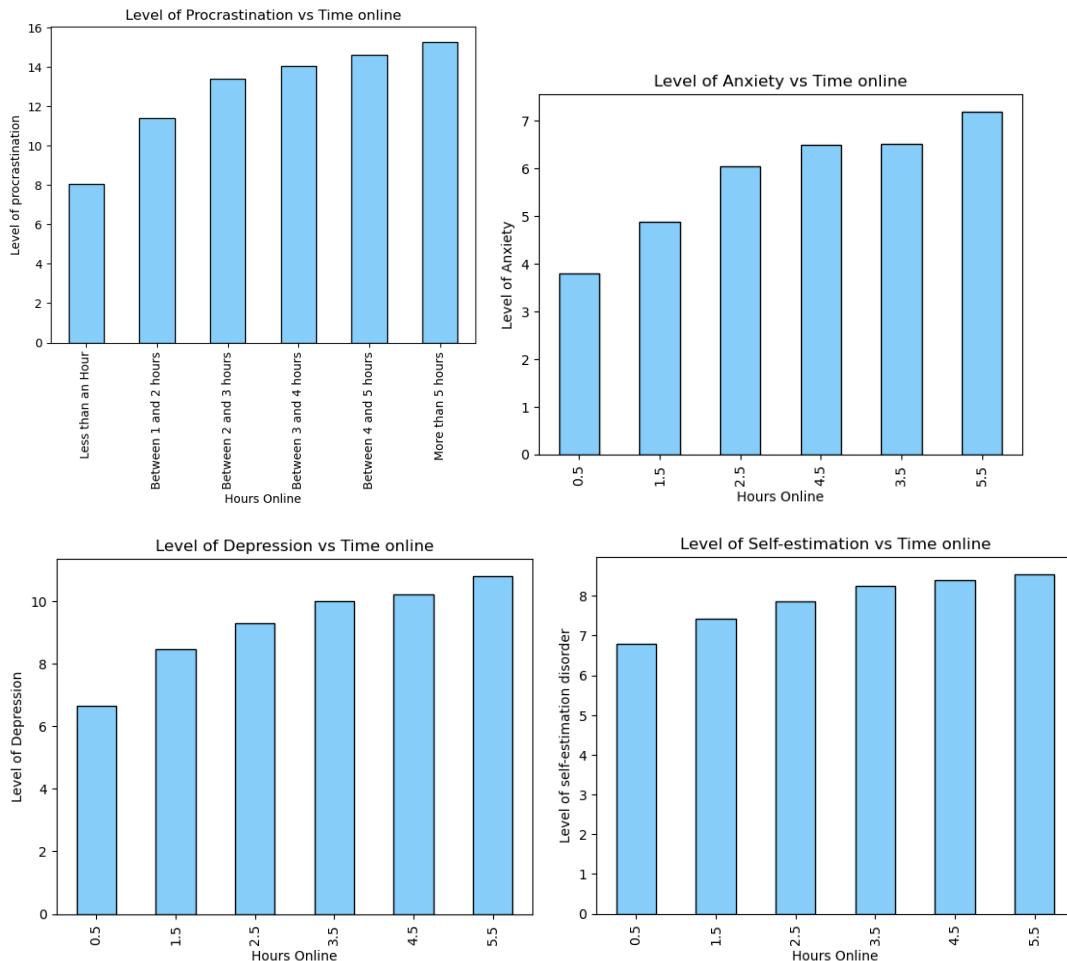
The analysis of Google Trends data shows that people are concerned about the emergent realm of AI, particularly ChatGPT. We noticed increasing search queries about negative perceptions of ChatGPT, such as stress and anxiety. This emerging trend confirms the necessity for further research and dialogue on how AI influences mental health, privacy, and societal norms.

## 2. Global trends



We explored the “Global Trends in Mental Health” dataset and its correlation to social media users over the globe. Mental health is influenced by many factors, but here some patterns can be seen. The rise of social media slightly decreases depression in many countries, as well as increases anxiety and some other disorders. These patterns confirm the importance of our research.

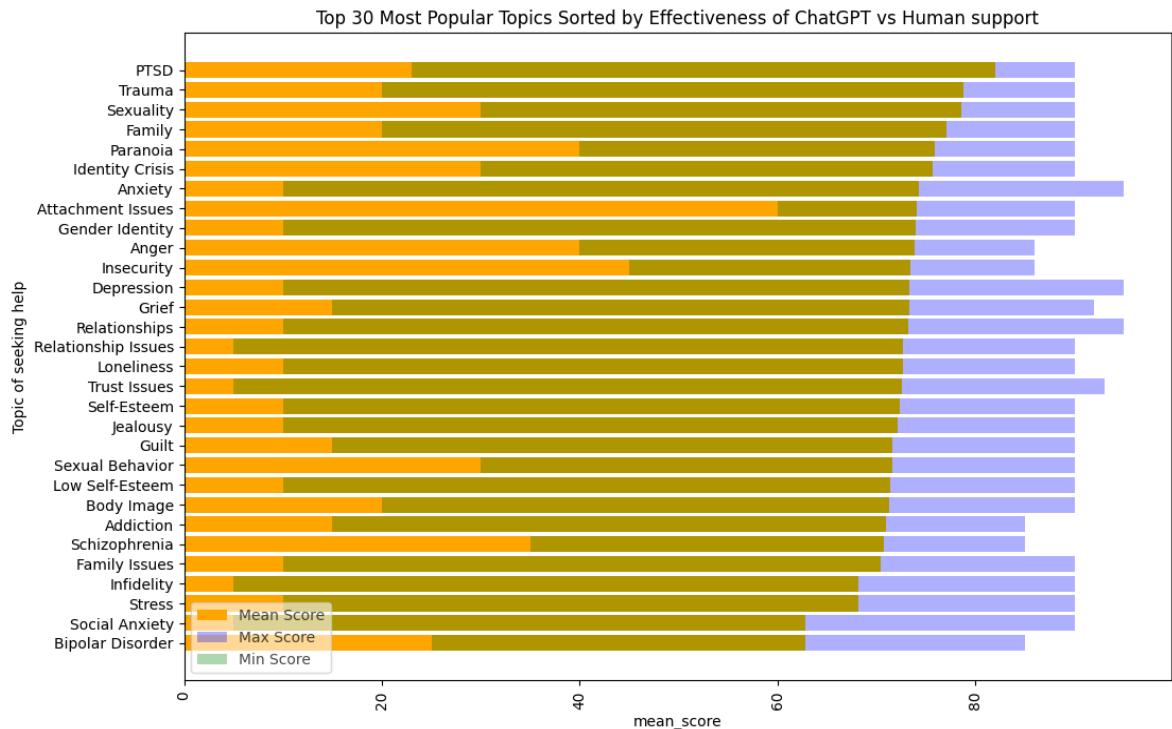
### 3. Social media impact



We have analyzed the dataset “Social Media and Mental Health”. It shows an existing correlation between the amount of time online and the impact on mental health, such as procrastination, anxiety, depression, and self-esteem issues. Symptoms for each condition increase with increasing time spent on social media. Controlling your time online and dedicating time for real life should minimize these negative impacts.

By the way, *how much time do you spend in real life?*

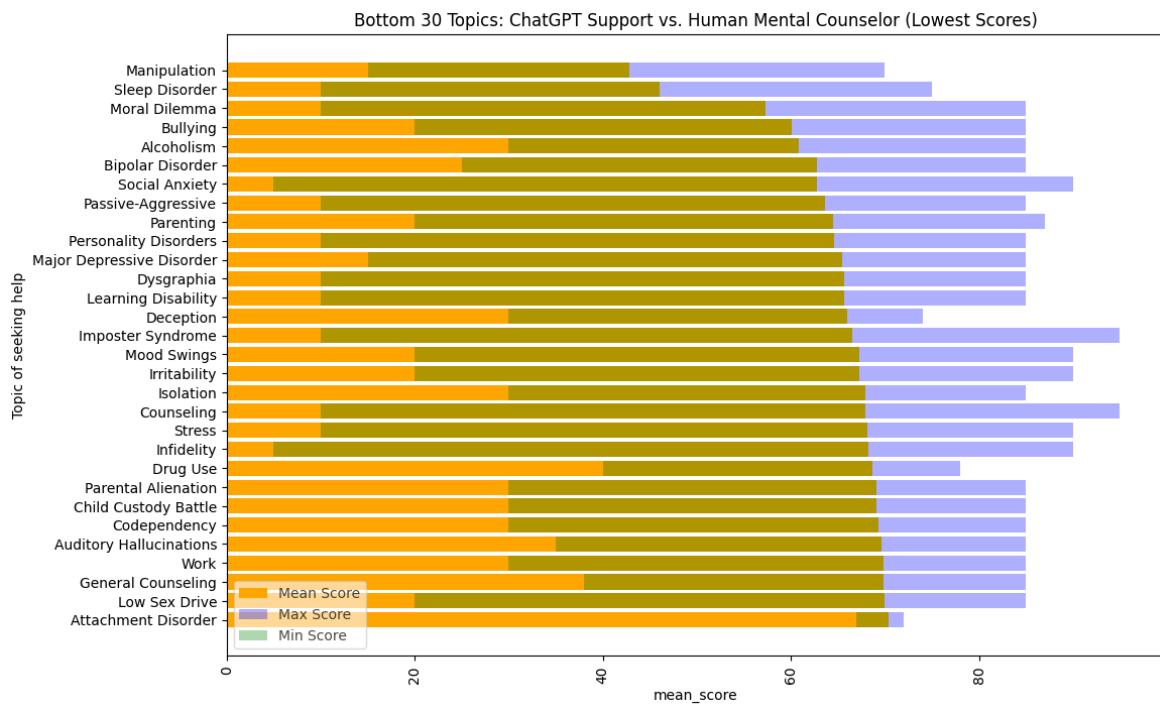
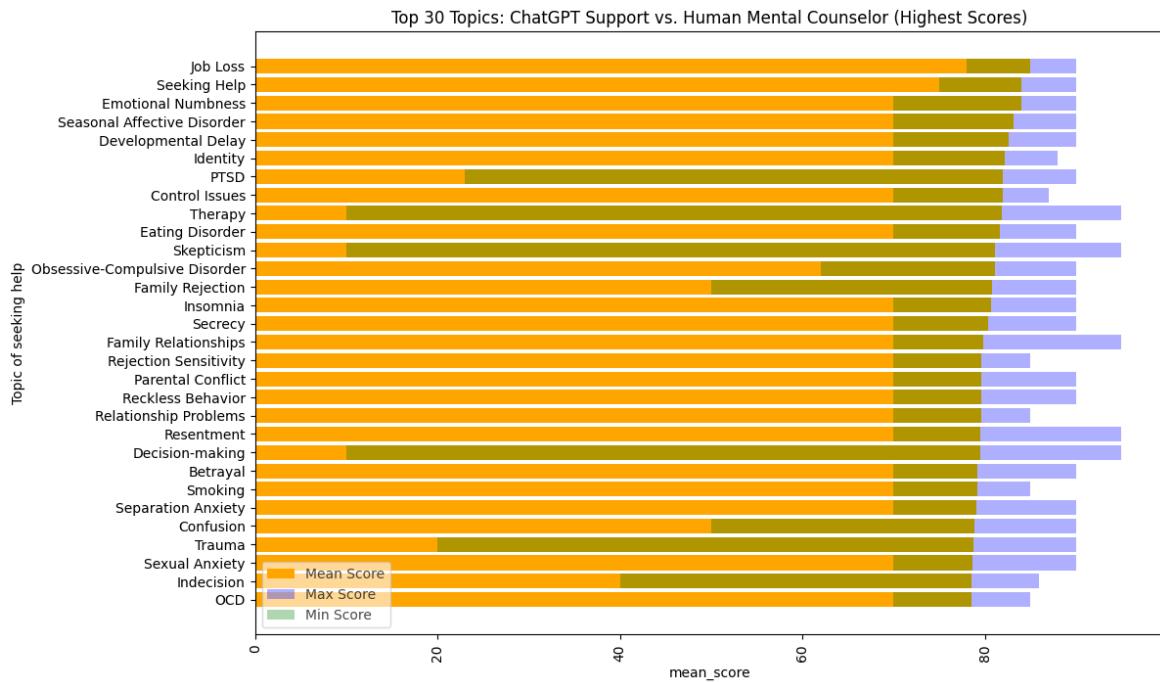
## 4. ChatGPT simulation



Based on a psychology dataset we run a trial of asking ChatGPT requests from people seeking mental support. We compared the answers of ChatGPT to a real human Mental Counselor's answers. ChatGPT shows about 73% of similarity. We also differentiate requests by topics.

There are topics where ChatGPT performs well (up to 85%) like Job Loss, Emotional Numbness, Developmental Delay, Identity, PTSD, Control Issues. And there are topics where it gives a low score (down to 42%), like Manipulation, Sleep Disorder, Moral Dilemma, Bullying, Bipolar Disorder, Schizophrenia.

These results can not be taken with 100% confidence, but they certainly show that using ChatGPT for mental health support should be done with caution. Reliance on it may not always provide good results. In many cases human support should be a preferred option.





## Ask yourself:

- *What is the correct use of AI and social media?*
- *How should we use Social Media and AI for better results?*
- *What kind of usage could lead to risks and possibilities of digital addiction?*
- *Is it worth spending some time to understand how AI really works?*
- *Should we question the answers of AI chatbots, or take them as a final truth?*
- *Is Real Life important for you?*

## Thank you

Find more about our research in our [GitHub Repository](#)

Follow our [Instagram account](#)

*May the AI serve you well!*