

# AI x Psychology

Perspectives, use cases, needs

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**PERSPECTIVES**

The goal of psychology is to  
*understand, explain, and*  
*predict* human behavior.

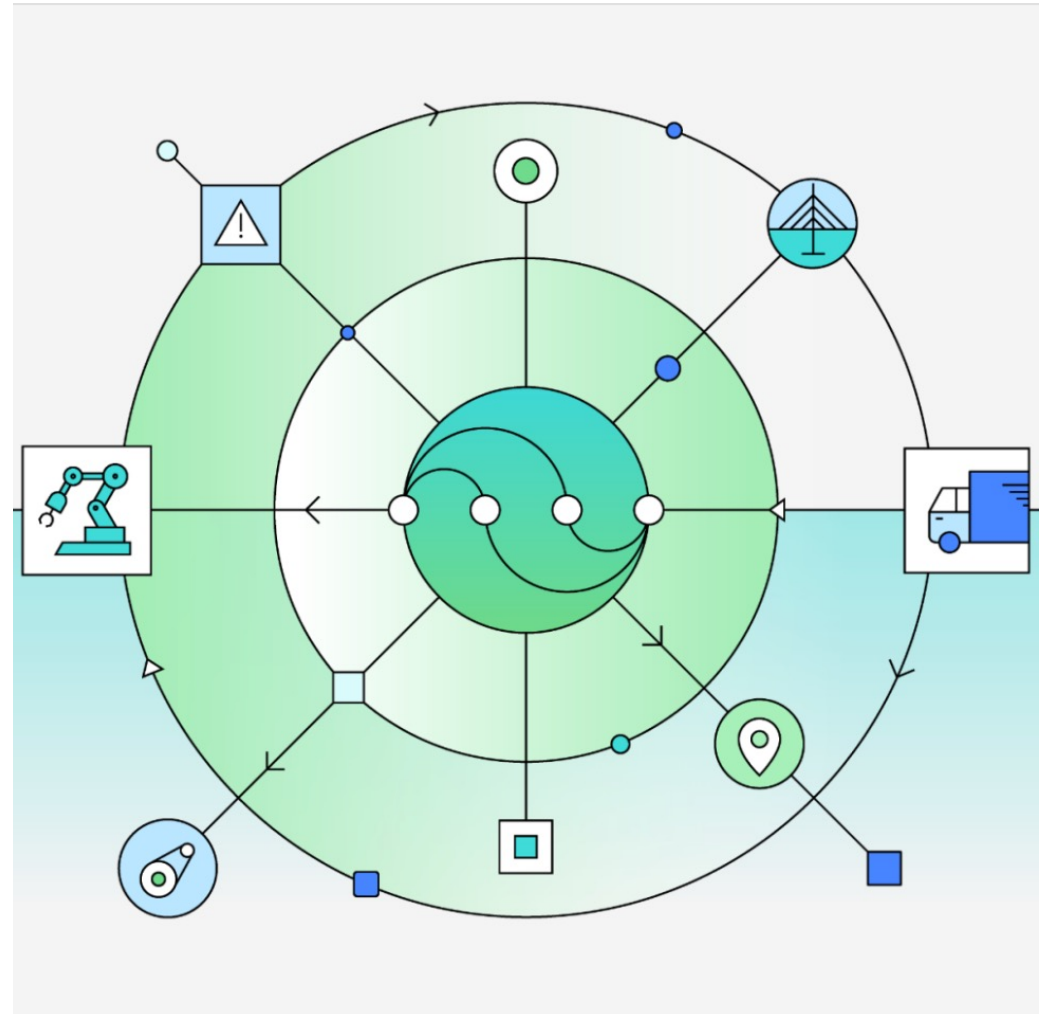
Observations and reflections of human life through  
scientific methods that allow development of  
theory and practice to the benefit of humans.

## **d(f): Artificial Intelligence**

*"Artificial intelligence (...) is technology that enables computers and machines to simulate human intelligence and problem-solving capabilities."*

Large Language Models (LLMs), Machine Learning,  
Pattern Recognition, Generative Multimodal Models  
(anything-to-anything)

<https://www.ibm.com/topics/artificial-intelligence>  
retrieved 2024 06 03





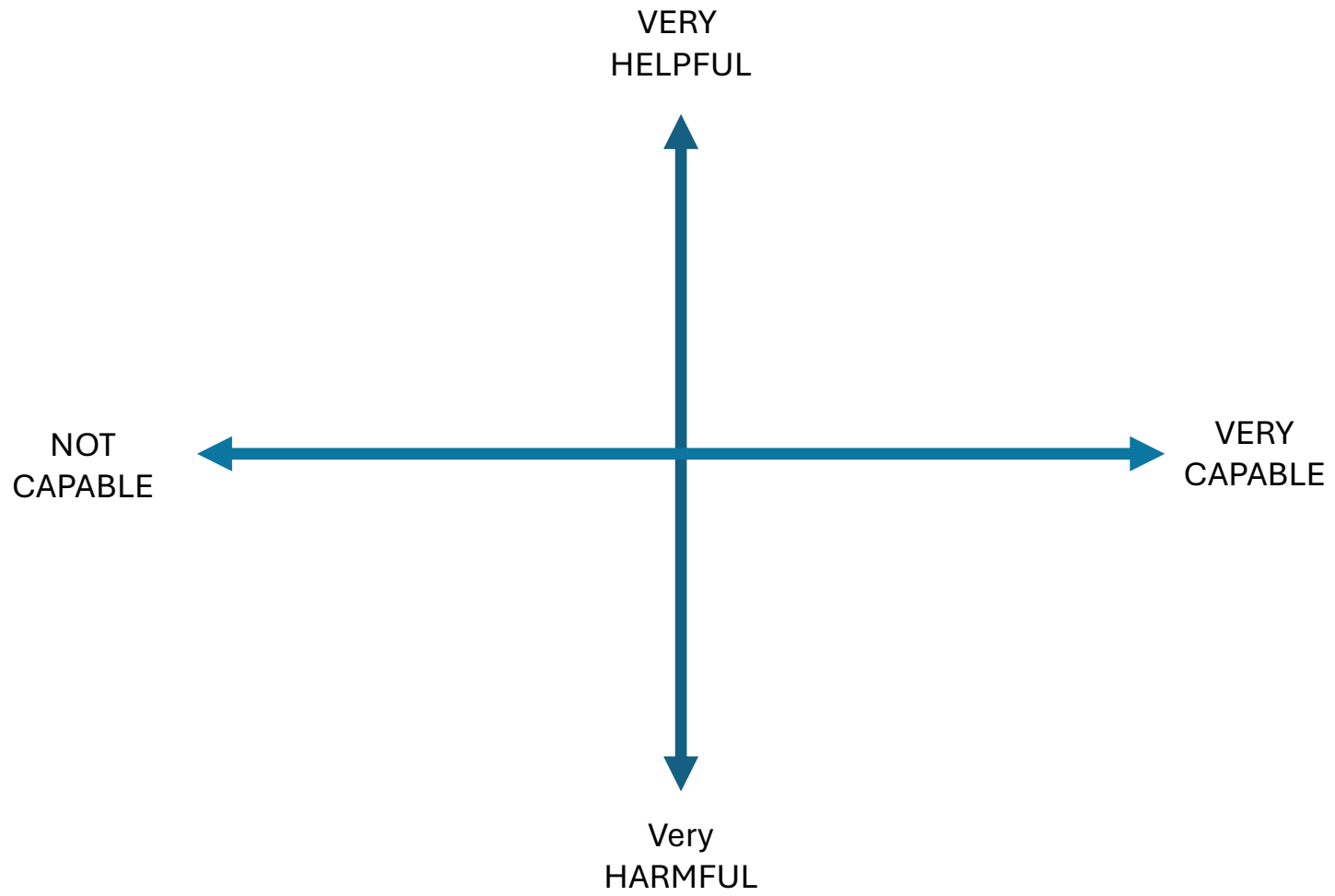
**WAVES:** The global diffusion or proliferation of a generation of technology anchored in a new general-purpose technology.

Suleyman, Mustafa. *The Coming Wave: Technology, Power, and the Twenty-first Century's Greatest Dilemma* (p. 15). Crown. Kindle Edition.



Artificial  
intelligence  
makes  
psychology  
more relevant.

Language, communication, symbols,  
creativity, analysis, methodological use  
cases, social aspects





## Use cases \*

\* Selected from  
quite a few initiatives  
and projects



# STATISTICS & ANALYSIS

The field of machine learning is devoted to building methods that identify patterns in data, in order to make automated predictions or decisions.

← Studies ← Courses

## PSY9511 – Machine learning

**Level:** PhD **Credits:** 5

**Teaching:** Every autumn **Teaching language:** English

### Course description

- Course content
- Learning outcome
- Admission
- Prerequisites
- Teaching
- Examination

# MEMORABILITY

*(...) we set out to investigate if vision transformers can yield better predictions of memorability than the state-of-the-art in image memorability prediction. (...)*



<https://arxiv.org/pdf/2301.08647>

# GEPETTO

- Gepetto is a GPT4-based instance run via API in a standard terminal window on a MacBook Pro.(2,3 GHz, 8-core i9 Intel)
- Pre-prompted to pilot the capacity to do open-ended work environment interviews aligned to theoretical models and methods



gasjert medarbeider. Jeg forstår at du jobber på Arbeidspsykologi avdeling en som Forsker. Er du komfortabel og klar til å gi tilbakemelding på arbeidsmiljøet?

Ja, jeg er klar!

2. Det er flott å høre, Cato. Vi starter med det første temaet. Kan du på en skala fra 1 til 7, der 1 er svært uenig og 7 er svært enig, rangere i hvilken grad du opplever et positivt arbeidsmiljø på din arbeidsplass?

6, vil jeg si. Det er ganske bra, altså.

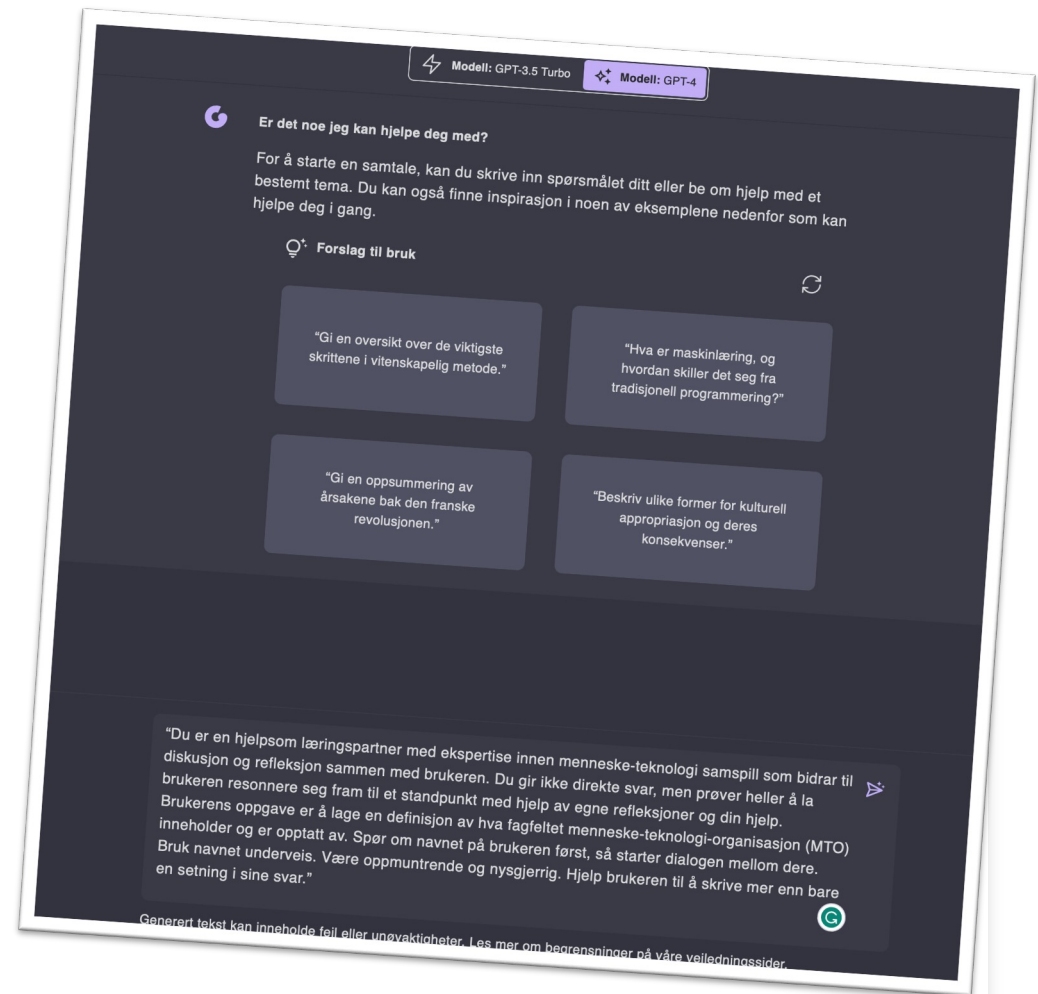
3. Det er bra å høre at du opplever arbeidsmiljøet som positivt, Cato. Kan du utdype litt rundt hva det er som gjør arbeidsmiljøet positivt for deg? Er det noe spesifikt som bidrar til denne opplevelsen?

Vel, jeg liker folkene som jobber her. Flinke og faglig sterke personer som bryr seg om arbeidsplassen og hva de jobber med. Høyt faglig engasjement gjør at alle kjenner stolthet over å jobbe her, tror jeg.

4. Det høres virkelig ut som et sterkt og engasjert team du er en del av, Cato. Du nevnte stolthet som en del av opplevelsen - kan du fortelle mer om

# STUDENT EVALUATION & FEEDBACK

Using GPT.UIO.NO to help students explore a specific topic – and have the student critically evaluate the conversation contents with reference to our lectures and curriculum.



# CLINICAL DATA

Using labelled data from real patient treatments as basis for fine-tuning and analysis of the role of language in providing effective psychotherapy.

Estimated database: *10.000 h* of professional labelled data

<https://www.sv.uio.no/psi/om/organisasjon/fagavdelinger/klinisk/>

## Klinisk psykologi



Avdelingens virksomhet består av forskning, formidling og undervisning innenfor fagfeltet klinisk psykologi.

### Undervisning

Avdelingen underviser på profesjonsprogrammet i psykologi. Hoveddelen av undervisningen foregår i siste halvdel av studiet.

# EMOTION RESEARCH

The use of LLMs to investigate the basis of this emotion in social relations using a variety of measures from social psychology and anthropology.

## Kama muta: A social-relational emotion

### Objectives

Experiences of "being moved" can be intense emotional episodes that involve strong feelings for others, crying and goosebumps, and social motives. We investigate the basis of this emotion in social relations using a variety of measures from social psychology and anthropology.

### Outcomes

We have discovered that kama muta is a universal emotion that is experienced as positive and motivating.

Please visit our project page [kamamutalab.org](http://kamamutalab.org) to learn more about our research, as well as our full publication list.



Photo illustration:  
Colourbox.com

**NEEDS**

Enable local  
initiatives to move  
forward

Build local  
capacities to  
develop projects

### **TECHNICAL**

Access to computational power for fine-tuning

Flexibility in what models/APIs to use

### **PRACTICAL**

A more visible and accessible contact with IT

Low threshold access to basic info/training

### **ADMINISTRATIVE**

Dialogue on data handling in research/applications

Dialogue on budgeting/funding



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