MeMo:KI - Factsheet Nr.1 – June 2020

# Artificial intelligence in the fight against the COVID-19 pandemic

**How does the German population feel about the utilization of AI?**

## Background

The main objective of the *Meinungsmonitor Künstliche Intelligenz* [MeMo:KI] is the continuous monitoring of public and published opinion on the topic of artificial intelligence (AI). Within this context, current topics related to AI are also repeatedly taken into account in the MeMo:KI investigations. This also applies to the predominant issue the world has faced since the beginning of 2020, the global COVID-19 pandemic. In addition to the obvious health risks, the effects are fundamentally felt in people's everyday lives as well as in the economy and society. Therefore, major efforts are being made in the fight against the virus and a wide variety of solutions are being developed. Some of these solutions also make use of AI technologies. For example, BlueDot was first to use AI to detect the outbreak of a pandemic in China back in December 2019 and was able to accurately predict the spread of the virus to surrounding countries by analyzing extensive datasets. AI is also used in the search for pharmaceutical drugs. AI systems search through large databases, compare existing drugs with models of the virus and calculate which compounds are most likely to help against the virus. But AI is also used outside of science in direct patient contact. In Israel, AI is used to classify patients into risk groups; in other countries, the order of treatment is suggested by an AI. In this way, technology plays an important role in the way doctors interact with patients.
Even though most of the examples are not yet applications that are being used in Germany, there could be more discussion about AI solutions in the fight against the virus in this country as well, following positive experiences in other countries. The concept of human-centered AI, which both the German government and the European Commission are committed to, leads to the question of how the German public actually views such solutions.

## Methodology

| | |
|---|---|
| **Method:** | Online questionnaire |
| **Executing Institute:** | forsa Politik & Sozialforschung GmbH |
| **Population:** | German population aged 18 and over that uses the Internet at least occasionally |
| **Sample:** | Weighted random sample |
| **Weighting criteria:** | Age, gender, region (federal state) |
| **Survey period:** | 21st calender week (18.05.-22.05.); 25th calender week (15.06.-19.06.) |
| **Further Information:** | In depth methodology overview |

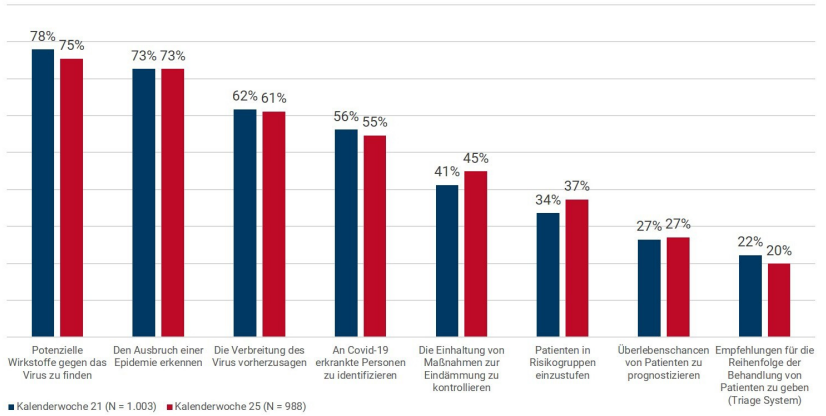
EIN PROJEKT VON:
CAIS CENTER FOR ADVANCED INTERNET STUDIES
hhu Heinrich Heine Universität Düsseldorf

GEFÖRDERT DURCH:
Ministerium für Kultur und Wissenschaft des Landes Nordrhein-Westfalen

## Results

At the same point in the questionnaire during both survey periods, participants were asked to give their opinion on specific applications in the fight against the coronavirus (for question wording, see Figure 1). On a five-point scale, the participants could then indicate to what extent they fully reject (1) or fully support (5) the applications use.

Figure 1: Approval of AI applications in the fight against the COVID-19 pandemic




Annotation: Shown are the percentages of endorsement of an application (values 4 and 5) in the respective survey periods
*Artificial intelligence can also play an important role in combating the COVID-19 pandemic. Below, we have listed a number of tasks for which AI solutions are already available or will soon be ready for use. How do you personally see this, should such systems be used in Germany or would you rather not utilize AI in order to…*

The data show that AI applications in drug discovery that affect an unspecified group of people receive greater endorsement than those that serve to identify and control or make decisions about individuals. For example, about three-quarters of respondents tend to approve of AI-based drug discovery or epidemic outbreak monitoring; furthermore, more than 50% would also accept the identification of individuals who are ill. These values are far above the approval of a non-specifically surveyed use of AI in healthcare, which only 36% of respondents in the same survey supported.
But even at the lower end of the scale, there are still remarkably high approval ratings, considering the importance that AI would acquire in such a deployment. Every fourth and fifth person respectively finds the use of AI for calculating survival chances or for recommending treatment priority worthy of support. A not entirely insignificant part of the population is therefore open to consider AI applications in existential questions. Lastly, controlling the population through AI with regard to compliance with containment measures is also within the realm of the conceivable for 41% and 45% of respondents, respectively. Here, too, a supposed solution to the hardship seems to make personal restrictions more acceptable.
In summary, the results indicate that (a) citizens do differentiate between different AI applications and that a specific designation of use triggers greater endorsement, (b) AI applications with individually attributable and existential consequences experience lower approval, and (c) in times of societal distress AI technologies can expect more acceptance than in fair-weather periods.

**Contact person:** Pero Dosenovic, M. A.
**Email-Address:** memoki@hhu.de
**Website:** cais.nrw/memoki

EIN PROJEKT VON:
CAIS CENTER FOR ADVANCED INTERNET STUDIES
hhu Heinrich Heine Universität Düsseldorf
GEFÖRDERT DURCH:
Ministerium für Kultur und Wissenschaft des Landes Nordrhein-Westfalen

**Kommentiert [TM1]:** Ich kann die Grafiken nicht von hier aus ändern, insofern hier meine Vorschläge:

1. find potential antiviral drugs
2. detect the outbreak of an epidemic
3. predict the spread of the virus
4. identify persons infected with COVID-19
5. monitor adherence to containment measures
6. classify patients into at-risk groups
7. predict patients' chances of survival
8. provide recommendations for the order of treatments (Triage System)

Kalenderwoche müsste jeweils in 21st calender week und 25th calender week geändert werden.