Public Interest AI in Action

An Empirical Overview on the Landscape of Public Interest AI Projects

MOTIVATION AND DATA BASIS

We need empirical evidence

The potential of AI systems to support societies in solving problems or even support tackling global crises as the climate crisis is widely proclaimed. However, while individual projects testify to be "AI4good" on their websites, there is little overarching documentation, evaluation of impact, or even detailed data presenting an overview of such running projects in this field.

Our research aims to fill this gap and contributes an empirical foundation needed to assess the characteristics of AI projects serving the public interest. The analysis followed a mixed-methods approach, combining a quantitative analysis of two data sets, visualized below (n=207) and a focused qualitative analysis of the open questions from a survey (n=27).

SOCIETAL FUNCTIONS OF PUBLIC INTEREST AI

What projects aim to achieve

NET Dataset: A manual collection of 150 projects through networks and recommendations
Web Dataset: A collection acquired through web search via particular keywords spanning 57 projects

Social impact scaling 15.5% 4.7%

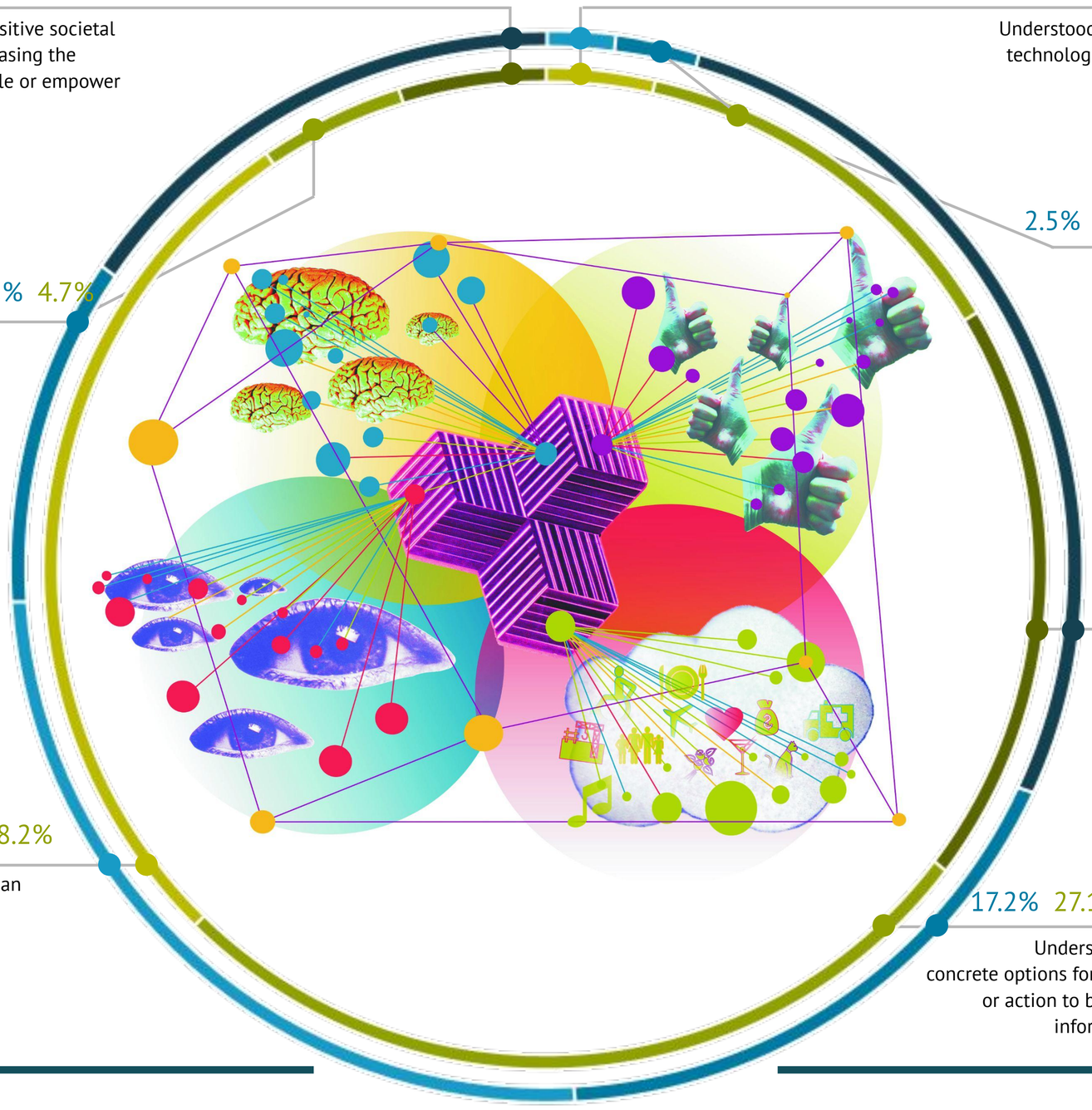
Understood as methods and measures that support positive societal impacts aligned with democratic ideals either by increasing the effectiveness or democratic value of a process to enable or empower citizens.

Resource conservation 10.5% 4.7%

Understood as efforts to reduce waste, preserve natural resources, and restore wildlife or achieve increased efficiency for sustainability reasons.

Knowledge creation 24.8% 28.2%

Understood as a supporting role in the process of human knowledge creation, by providing or analyzing data to support new insights about a problem for instance by providing a holistic overview of a problem nexus or allowing analysis over time.



Accessibility 2.1% 3.5%

Understood as assistive technologies that help humans use technologies in other ways tailored to their specific needs.

Adaptive curation 2.5% 12.9%

Understood as a tailored and potentially personalized knowledge access (e.g. in the context of education).

Automation 27.3% 18.8%

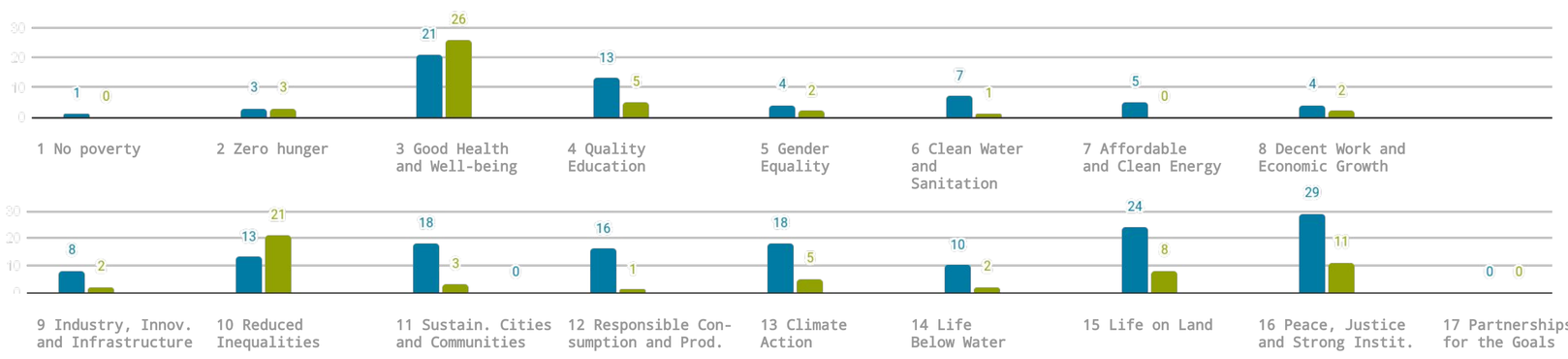
Understood as a process that reduces human intervention. (Task) automation means that a part of a process that was originally done by humans is executed by a programmed machine.

Decision assistance 17.2% 27.1%

Understood as the machine being programmed to offer concrete options for a decision (as predictions or recommendations) or action to be made by humans as well as providing humans information to make more evidence-based decisions.

DISTRIBUTION OF PROJECTS ON SDGS

Health, less inequalities and strong institutions as main goals



Number of projects mapped to the 17 SDGs

For our analysis, we used the UN's Social Development Goals (SDGs) as a proxy for mapping different sectors of public interest goals. While we are aware of the SDGs and public interest not being the same and also aware of critique regarding the SDGs, they are for this purpose of mapping a helpful set of categories, as they offer a very rich and widely agreed field of global societal goals for the well-being of humanity and the planet. For each project we manually selected one or two SDGs that matched the project's description.

KEY FINDINGS

Public interest definitions are lacking substance

Our qualitative analysis shows that remarkably many projects could not present a clear definition of public interest AI but referred directly to characteristics of examples of public interest AI specifically or procedural criteria of it. This is relevant since it shows a glass half-full and glass half-empty picture in regards to the well-founded nature of this concept: We found it positively surprising that the few answers given have a significant resemblance with thoughts about public interest in political theory. However, it is quite worrying that projects participating in this survey explicitly about public interest AI could not give a working definition that grounds their work.

There are several implications from this work for policy work as well as for actors in the field of public interest AI overall: Generally, the lack of transparency of many public interest AI projects hints at not only a difficulty for research in this field. It also hints at a missed chance for projects themselves to have an overview of existing initiatives, which holds a potential for collaboration or knowledge exchange. Greater efforts are needed to map this field and establish an ecosystem of exchange and collaboration to avoid doubling efforts or losing insights when projects cease to exist. Policy actors, research and funding actors could collaborate to foster better mapping and exchange amongst projects, improve documentation of projects and thereby increase long term comparability (which in the long run would allow for impact assessments). These efforts would lead to stronger evidence to say which societal functions AI is successfully serving for public interest AI projects and if and why their promised impact is fulfilled or not.

CONTRIBUTE

Tell us about other initiatives!

Do you know public interest AI project that should be part of our data set and research? Contribute by sending us an quick email with a link to the project and your reason why it should be included. Thank you! zueger@hiig.de

Complete the survey and add project to the global map on

www.publicinterest.ai

This research was part of the Public Interest AI research group, funded by the German Federal Ministry for Education and Research.



Dr. Theresa Züger
Lead of the AI & Society Lab at the Humboldt Institute for Internet and Society



Dr. Hadi Asghari
Senior researcher and lecturer at the faculty Electrical Engineering and Computer Science at TU Berlin

Alexander von Humboldt Institute for Internet and Society