Reflections from the first preliminary results of the survey on AI ethical and legal implications of LLMs

Perihan Elif Ekmekci MD, PhD

Head of History of Medicine and Ethics Department, Deputy Dean of the School of Medicine, Head of the Institutional Review Board, TOBB University of Economics and Technology; Co-Chair, EOSC-Future/RDA AIDV-WG; Ankara, Turkey

AI, ChatGPT and other LLMs: Evaluating governance, policy, and challenges

- This survey has been developed by the EOSC-Future/RDA Artificial Intelligence and Data Visitation Working Group (AIDV-WG)
- AI is a rapidly advancing technology with the potential to transform many aspects of our society.
- Education, and the sharing of information and ideas, AI and particularly Large Language Models (such as ChatGPT) open new avenues for research and the sharing of information as well as for creativity.
- AI poses new challenges to society, including in the areas of human rights, ethics, law, research and, scientific publising.

Aim

- To gather insights from scientists, educators, and members of ethics committees on the potential benefits and challenges regarding the use of AI and, help in the development of global approaches to legal frameworks, consent, ethics review, and rights in the context of AI.

Methodology: Participatory Bioethics

Participatory bioethics approach involves multiple stakeholders and interested partners throughout the entire research process (shaping research ideas and questions) so that various interests and contextual requirements, as well as the type of impact they envision are embedded into the research questions.

The central ethical commitment of this approach is fostering reflection and open dialogue (inclusivity and the joint creation of knowledge) rather than adhering to a specific ethical framework.

Ref: Abma T.A.,Volkes Y., Widdershoven G. Participatory Bioethics Research and its Social Impact: Case of Coersion Reduction in Psychiatry. Bioethics Volume: 31 Number 2 pp: 144-152

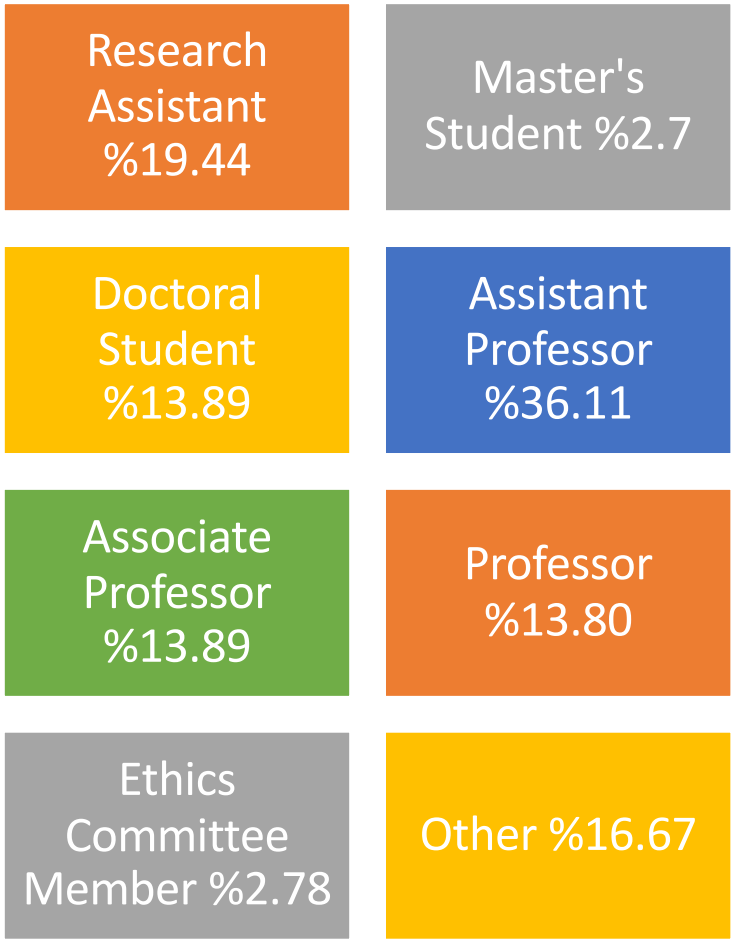
Methodology

This survey has been developed by the EOSC-Future/RDA Artificial Intelligence and Data Visitation Working Group (AIDV-WG).

The Turkish research team:

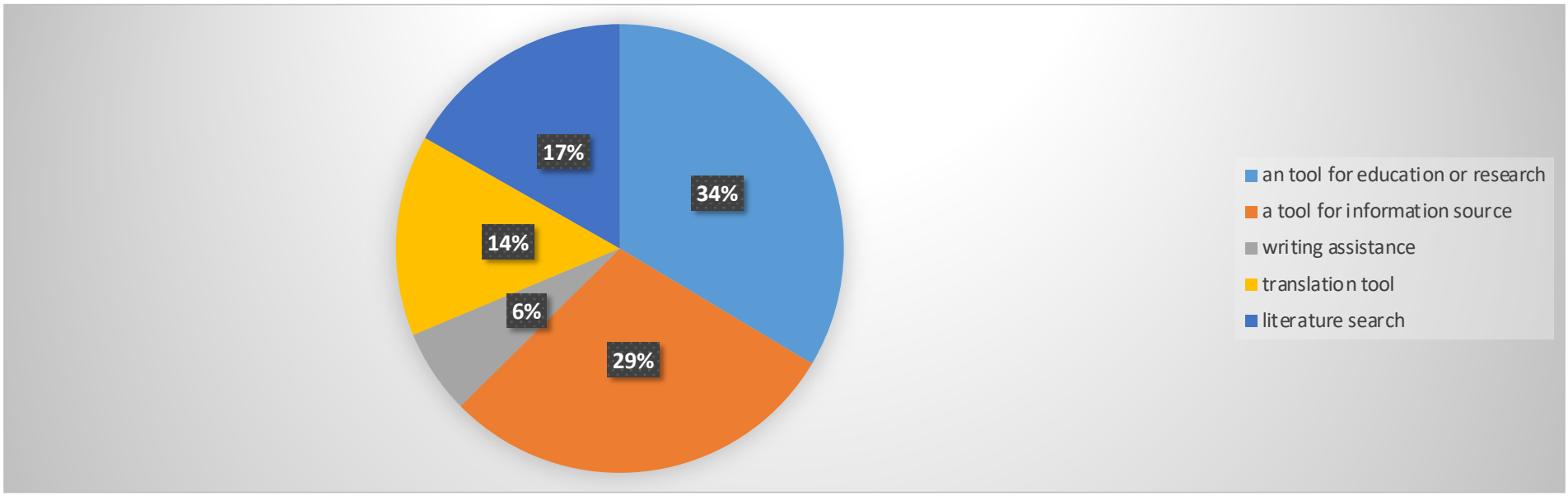
Perihan Elif Ekmekci M.D., Ph.D.	Osman Eroğlu Ph.D. - Biomedical Engineering-	Olgun Değirmenci Ph.D. –Law-	Yasemin Ardıçoğlu Akışın M.D. – Biochemistry-	Banu Buruk Ph.D. – Bioethics-	Başak Akar Ph.D. – Political Sciences-	Kumru Döne Msc. – Humanities-

Participants academic positions

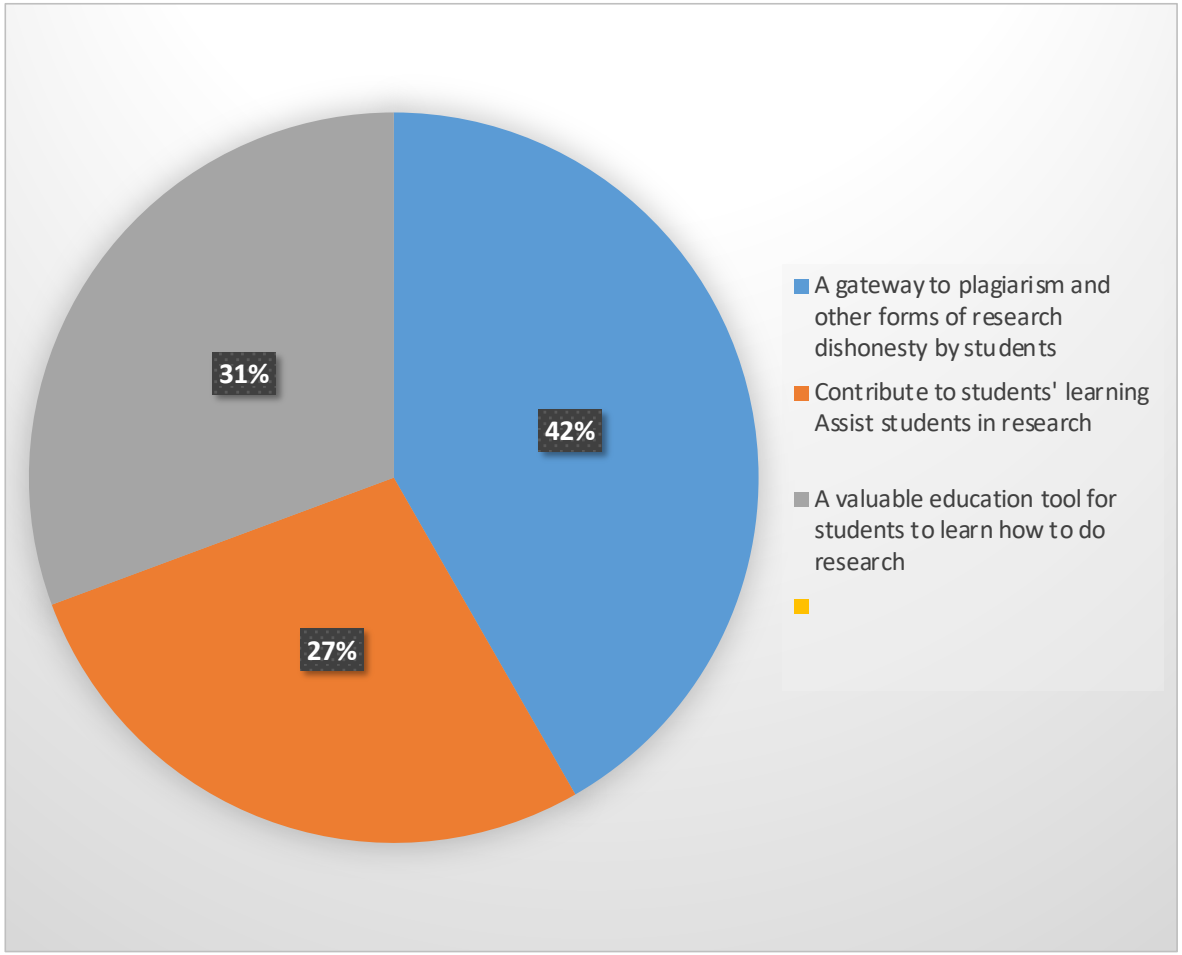


- %77.78 of have used ChatGPT or any other LLM applications.

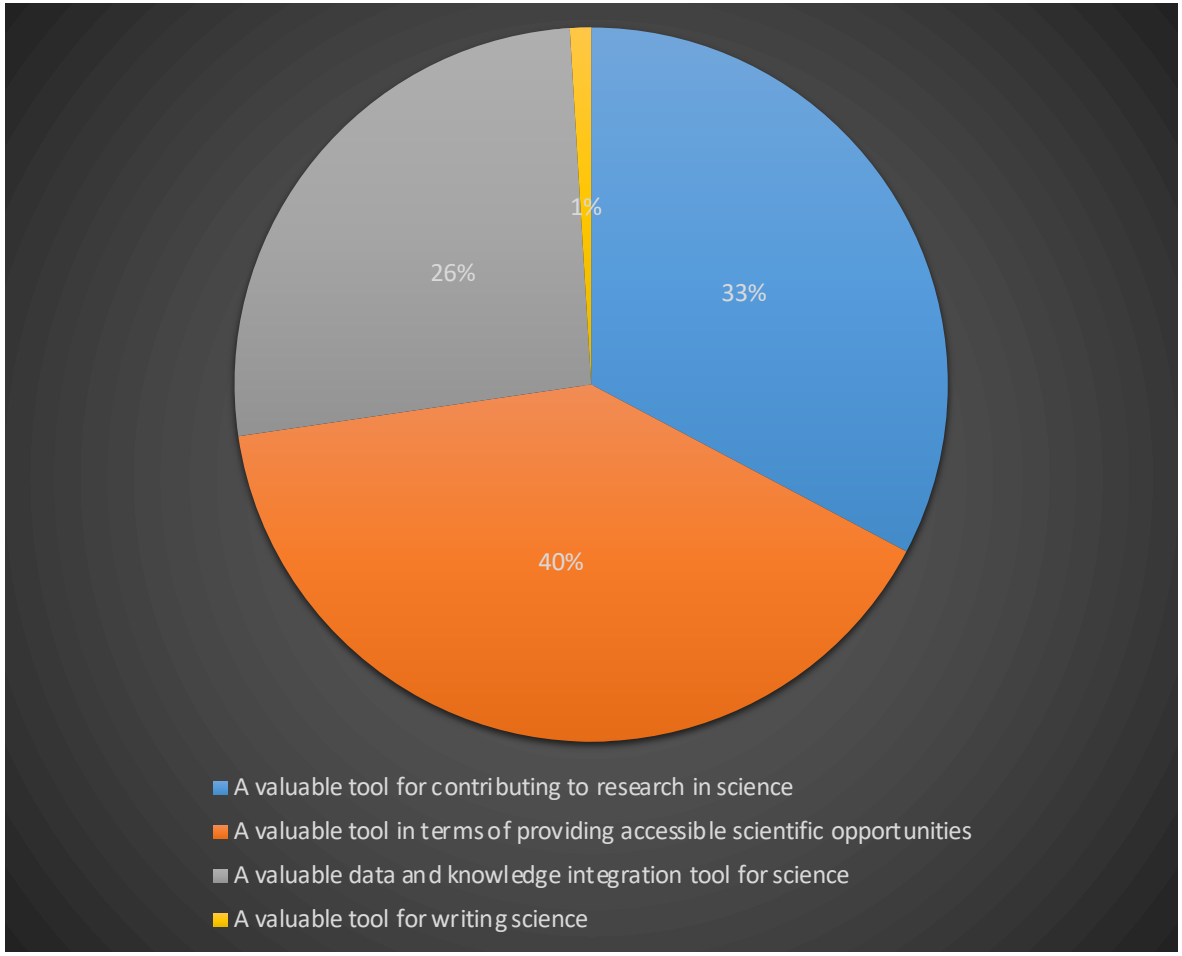
Using ChatGPT as an education or research tool



Benefits and risks ChatGPT bring to education



Benefits ChatGPT can bring to science



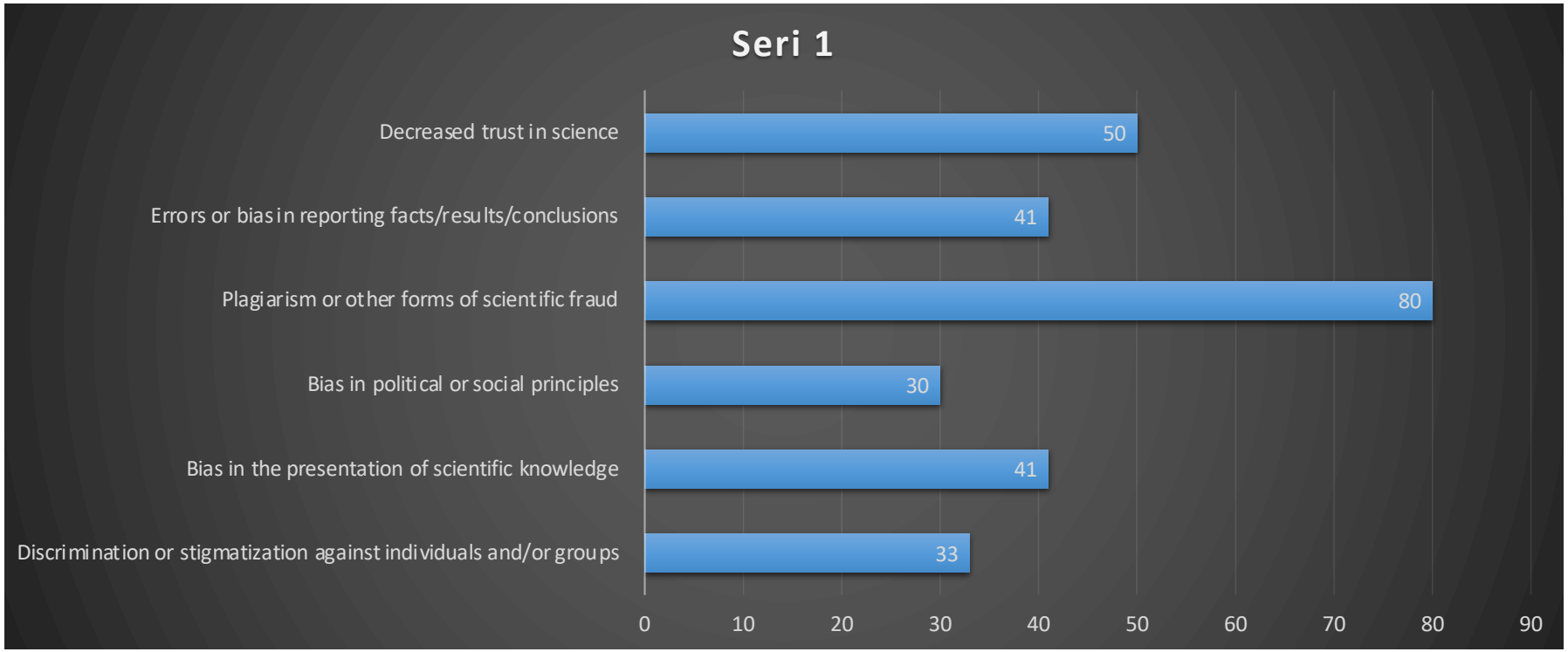
Risks ChatGPT can bring to science

- potentially create bias and discrimination in science %41.67
- **lead to a weakening of trustworthiness in science %61.20**
- undermine responsible scientific authorship and cause harm%44.44
- contribute to a decline in academic standards in science %30.56
- **diminish scientists' learning capabilities %61.11**
- **pose a threat to scientific credibility %52.78**

Effects of ChatGPT on the development of open science

- It will contribute to the advancement of open science by enhancing knowledge production %36
- **It will aid the progress of open science by improving knowledge sharing %41**
- It will assist in the advancement of open science by creating a more inclusive environment %22
- It will support the progress of open science by fostering a more democratic scientific environment %22
- It will help advance open science by enhancing scientific freedom %33
- It will contribute to the progress of open science by improving education in a digital community %19
- It will harm open science by causing bias in research %22
- It will undermine open science by weakening scientific credibility %30
- **It will hinder open science by diminishing academics' intellectual property rights %33**
- **It will harm open science by diminishing the education of emerging scientists %33**

Ethical issues ChatGPT raises



GhatGPT and other forms of AI/LLMs are a benefit or threat to society

Beneficial:

- **AI and LLMs will advance science. %52**
- AI and LLMs will advance education. %41
- AI and LLMs will advance medical diagnosis and treatment.%25
- **AI and LLMs will contribute to scientific research.%52**
- AI and LLMs will enhance existing powerful, technology-driven data systems to be more accurate, reliable, interpretable, transparent, robust, organized, and faithful.%16

Harmful:

- **They will lead to misinformation and disinformation.%44**
- They will undermine cybersecurity. %30
- AI and LLMs will lead to job displacement, unemployment, and the marginalization of individuals or communities.%16
- **They will hinder intellectual activity and problem-solving, leading future generations to become overly dependent on technology and Artificial Intelligence. %55**
- **They will make it impossible to distinguish between human and AI thought and creativity.%44**
- They will eventually develop non-human minds that can surpass or entirely replace human intelligence in terms of quantity/capacity.%16

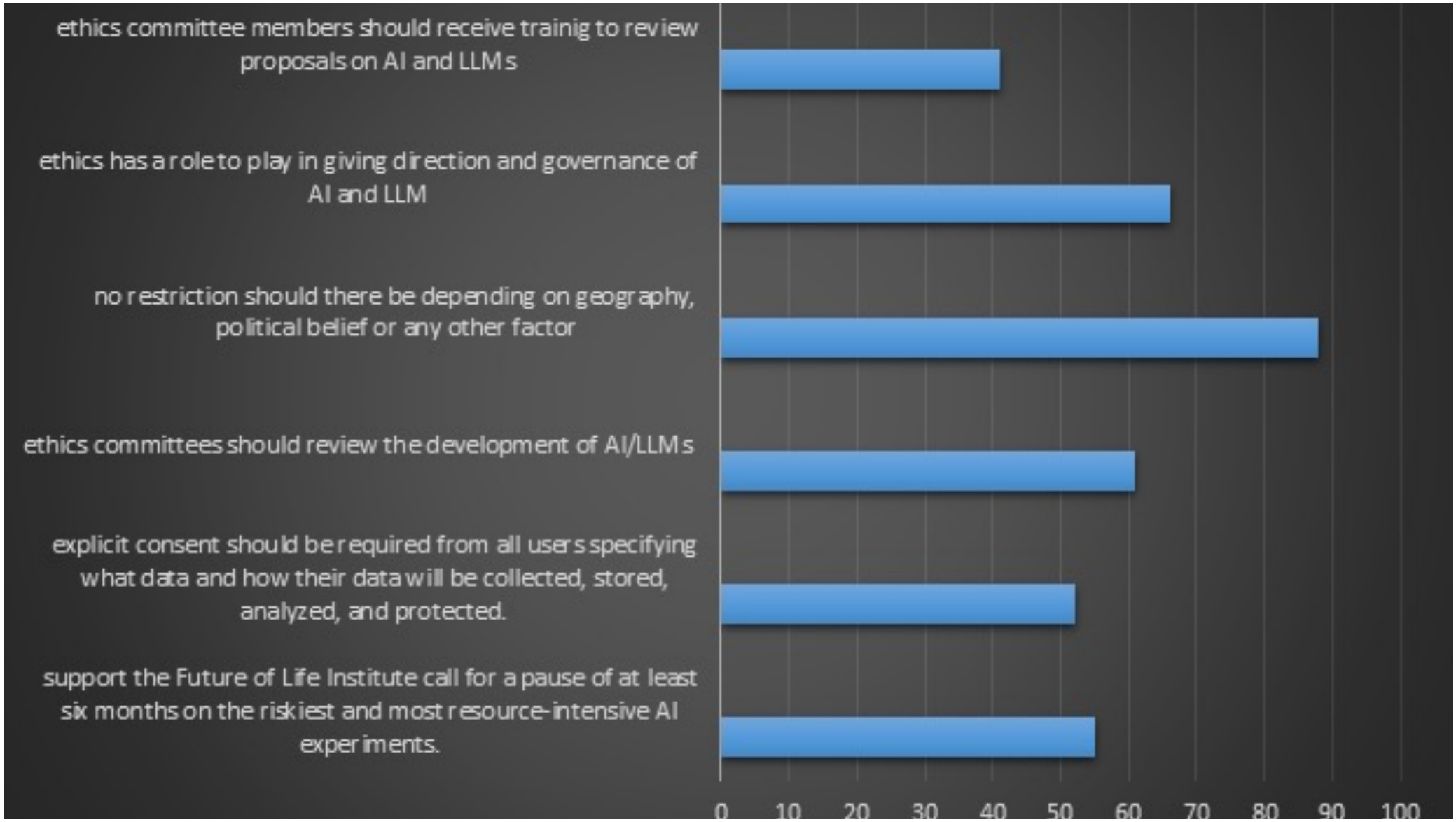
Risks and benefits to active citizenship

Risks

- It may be impossible to completely exclude AI from the decision-making process.%41
- **It can replace employees.%52**
- **Shortcomings in information preparation can be a problem.%47**
- Delays in information and data updates can be an issue.%38
- There may be issues in terms of responsibility and authority distribution in the administrative decision-making process.%30

Benefits

- **Enhance government agencies' citizen services. %63**
- **Expedite government agencies' citizen services.%61**
- Enable the tracking of needs in citizen services. %50
- Allow for the prediction of needs in citizen services.%44
- Reduce the workload in telephone and public relations systems that serve as communication channels between government agencies and citizens and residents within the country by operating in the form of digital representatives (e.g., informing about tax law and systems, appointment systems, residence permit applications for non-citizens, etc.). %33
- Provide data collection and mining while rapidly generating responses to citizens' complaints and inquiries.%44
- Serve as a tool for the integration of individuals who do not speak the native language, ensuring that these individuals can access the same quality of service (for non-citizens or those whose native language is not Turkish). %36


ethics committee members should receive trainig to review proposals on AI and LLMs
ethics has a role to play in giving direction and governance of AI and LLM
no restriction should there be depending on geography, political belief or any other factor
ethics committees should review the development of AI/LLMs
explicit consent should be required from all users specifying what data and how their data will be collected, stored, analyzed, and protected.
support the Future of Life Institute call for a pause of at least six months on the riskiest and most resource-intensive AI experiments.
0
10
20
30
40
50
60
70
80
90
100