



IEEE P7014.1

**ETHICS AND EMPATHY-BASED
HUMAN-AI PARTNERING:
EXPLORING THE EXTENT TO
WHICH CULTURAL DIFFERENCES
MATTER WHEN DEVELOPING AN
ETHICAL TECHNICAL STANDARD**

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1. EXECUTIVE SUMMARY AND RECOMMENDATIONS

This white paper reports insights derived from two workshops held in Tokyo in June 2024, conducted to explore Japanese and regional insights on ethical questions regarding the use of technology to emulate empathy, general-purpose artificial intelligence (GPAI), and human-AI partnering. Key recommendations from the workshop are as follows:

- 1) To ensure ethical interactions, there is a need to distinguish strong empathy from weak empathy in AI-based partners.
- 2) There is a need to investigate, be aware, and potentially be self-critical of one's own ethical position and assumptions on technology. This is not to suggest that one nation is wrong or right, but that it is valuable to understand one's own orienting beliefs before ethically assessing technology.
- 3) There is a need to recognize that empathy and emotion are seen in broader "ecological" terms, meaning that they are present in agents other than people. One does not have to agree, but governance should be aware that design and reception of design involve feeling-into things (and even feeling-into things by things).
- 4) If IEEE P7014.1 is correct and there will be more rather than less empathy-based interaction, there is a need to consider empathy fatigue.

- 5) There is a need to not simply see empathy through the prism of interpersonal psychology but to include esthetic dimensions of empathy.
- 6) A way to encourage buy-in to rights-based standards may be to create basic governance and encourage national and regional add-ons to focus on specific elements (e.g., privacy aspects in Europe, and rights of association in Asia).
- 7) The problem of universalism and particularism is resolvable, but it will likely involve weak thresholds to encourage global buy-in to rights-based standards. As a result, it is advisable that ethical technical standards are highly focused on specific issues and technologies (such as IEEE P7014.1 and its interest in the overlap between emulated empathy, GPAI, and human-AI partnering).
- 8) The use of the language of AI ethics should be scrutinized due to variances in understanding and application of words and meanings. Academic citations and recourse to named ethicists will help.
- 9) International human rights remain the starting point of practical AI ethics (e.g., standards development), but there is a need to consider the political origin of AI ethics. Those from regions based on centralized governance (e.g., the EU) should appreciate the starting point of other countries and regions (e.g., Taiwan and its interest in more agile and decentralized governance).
- 10) IEEE P7014.1 and other ethical standards need to be interoperable with other governance measures if buy-in is to happen.
- 11) There is a need to reconsider voting procedures for IEEE working groups due to perceived procedural and temporal unfairness. One answer is asynchronous voting.

2. INTRODUCTION AND SCOPE

The purpose of this white paper is to report insights derived from workshops held in Tokyo in June 2024, conducted to explore Japanese and regional insights on ethical questions regarding (1) the use of technology to emulate empathy, (2) GPAI, and (3) human-AI partnering.

This is done to advance the work of the IEEE P7014.1 working group, an IEEE effort to develop a recommended practice to define ethical considerations and good practices regarding the use of emulated empathy in GPAI systems for human-AI partnerships. The white paper does not address all possible issues raised by empathy-based human-AI partnerships: it solely reports on outcomes from the workshops and analysis of these outcomes.

Similarly, the white paper solely represents the views of the authors and does not necessarily represent a position of either the IEEE P7014.1 working group, the IEEE SSIT Standards Committee, IEEE, or the IEEE Standards Association.

Funded by a U.K. [Responsible AI](#) award and organized by [Project AEGIS](#), the workshops sought to (1) diversify ethical frames of reference for ethical technical standards, but more importantly, (2) to see what can be learned from non-Western understandings of ethics for global efforts to develop an ethical technical standard. This is especially important given the risks of AI ethics “colonialism,” or “seeking to apply one set of ethics to all contexts” [6].

2.1. IEEE P7014.1 WORKING GROUP

For context, the IEEE P7014.1 working group for Ethical Considerations of Emulated Empathy in Partner-based General-Purpose Artificial Intelligence Systems was launched in 2024. It derives from a recently approved standard, IEEE Std 7014-2024, which principally focuses on biometric dimensions of emulated empathy, such as that based on narrow AI (computer vision and labeling of facial expressions, for example).

The nascent IEEE P7014.1 “recommended practice” aims to provide clear and practical ethical recommendations for the conception, design, and lifecycle of GPAI applications that emulate empathic abilities to enable human-AI partnerships.

The need for the IEEE P7014.1 project is as follows:

- 1) There is no explicit ethical recommended practice (or guidance or standard) regarding the intersection between emulated empathy and GPAI. This matters because partnership-based applications founded on GPAI are likely to increase in future years, inviting and deepening diverse ethical questions about the enmeshing of people and technology.
- 2) There is little global agreement on what detailed ethical standards (or explicit law or human rights policy) should be for these types of human-AI relationships.
- 3) There is global value in diversifying ethical frames of reference by which to account for human-AI partnerships
- 4) Empathy emerges in subtle, complex, and poorly understood ways, potentially missed by less focused governance instruments.

The IEEE P7014.1 working group recognizes that partnerships with AI will reshape industries, redefine individual and social capabilities, and challenge current conceptions of human and machine collaboration. Already these human-AI collaborations are increasingly popular, marketed as empathic partners, assistants, copilots, and similar. IEEE P7014.1 focuses and provides recommendations on one element of this relationship—empathy. The authors recognize that there is scope for social good in partners that can help with diverse aspects of everyday life (work, therapy, education, life coaching, legal problems, fitness, entertainment, and more), but also that these systems raise ethical questions. Some of these ethical questions are familiar and apply to AI technologies in general: for instance, issues of transparency, accountability, bias, and fairness. Other ethical questions are more specific and unique to GPAI applications that emulate empathic abilities to enable human-AI partnerships: these include psychological interactions and dependencies (and that AI models can be prompted for emotional and empathic responses), child/age appropriateness, fiduciary issues, animism, and manipulation through partnerships with GPAI systems.

2.2. TERMS OF REFERENCE

EMPATHY

This white paper serves to account for Japanese and regional interests in IEEE P7014.1 issues (empathic human-AI partnering). It does this to begin a process of diversifying ethical belief systems where these feed into the design of human-centered technologies. The white paper does not linger on definitions, extensively recounting debates associated with the premise of computational empathy, or the nature of GPAI. The empathy question is a thorny one, and readers are encouraged to consult *Automating Empathy* [16], which addresses perspectives and problems associated with the idea of empathy, computers, and automation. In lay terms, however, empathy means to share or understand others' feelings or experiences. Consequently, any empathy performed by a machine is considered an *emulation* of human empathy rather than the same process (IEEE Std 7014 [8]).

GENERAL-PURPOSE AI (GPAI)

GPAI is sometimes referred to as “foundation models,” but the key for IEEE P7014.1 is that these involve systems that have a wide range of possible uses. Although the set-up period of IEEE P7014.1 was motivated by the rollout of popular large language models (LLMs) in 2022, multimodal systems (including those of a biometric sort) are recognized. Key for the workgroup is the lack of task specificity and that downstream use in “partners” may involve wide-ranging topics and means of human-system interaction.

PARTNERS

While “assistants,” “teaming,” and “partners” are overlapping figures of speech, the metaphors each serve to signal changes in how people use AI-based technologies and live in relation to them, and ideas about how people will interface with those technologies. With “partner,” IEEE P7014.1 has two agents in mind: a living person and an AI system that functions as a partner to achieve a goal of some sort. These goals may be short- or long-term, and important or unimportant. Although IEEE P7014.1 is conceived in terms of a human-AI pairing, it is not restricted to this. The AI element may work with several people, and a person will likely have several AI partners (some general and others more task-specific).

The premise of “empathic partners” connects with interest in “human-AI teaming,” “digital assistants,” and “chatbots.” Empathic partners gauge the disposition of the human user and express through language and other modalities a synthetic disposition that mimics the turn-taking norms of human interactions. Teaming goes a step further than assisting, involving “the emerging capabilities of AI technologies [that] allow them to be implemented directly in team processes with other artificial and human agents or to overtake functions that support humans in a way team partners would” [2], [15]. Chatbots that use LLMs to communicate with humans are prominent examples of how empathic partnerships can arise. Notably, empathic AI partners may have anthropomorphic qualities, which are mostly perceived involuntarily [20].

2.3. TOKYO WORKSHOPS

Two all-day workshops were held in Tokyo in June 2024, each attended by 16 guests from academia, the technology industry, law, policymaking, civil society organizations, and consumer protection groups. The goal was to put IEEE P7014.1 issues before the room (involving the overlap of empathy, GPAI, and human-AI partnering) to generate discussion and reactions from Japanese and other regional stakeholders.

The workshops were held at the National Institute of Informatics (NII), which connects academia with the technology industry and disseminates scientific information to the public.¹

Facilitated by unobtrusive two-way translation, both days followed the same format but with some updated prompts and content for the second day based on outputs from the first. The AEGIS team and selected guests provided contextual talks about related work and societal issues. The focus, however, was to generate small group discussions, which in turn informed subsequent full group discussions. Held using Chatham House rules,

¹ The working group is especially thankful to the NII’s Dr. Frederic Andres for his help organizing and hosting the meetings.