

# The Challenges for GenAI in Social and Individual Well-being

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## Abstract

At the AAAI Spring Symposium 2024, we explored the critical challenges faced by Generative Artificial Intelligence (GenAI) regarding social and individual well-being. Our discussion revolves around two perspectives:

**Individual Impact of GenAI on Well-being:** This perspective focuses on the design of AI systems with a keen consideration of individual well-being. It seeks to understand how digital experiences influence emotions and the quality of life at a personal level. By examining the effects of AI technologies on individuals, we aimed to tailor solutions to enhance personal welfare and fulfillment.

**Social Impact of GenAI on Well-being:** Here emphasis shifts to GenAI's broader societal implications. We strive for decisions and implementations that foster fairness and benefit all members of the society. This perspective acknowledges the interconnectedness of individuals within social structures and seeks to ensure that GenAI advancements contribute positively to collective well-being.

In this paper, we provide an overview of the motivations driving our exploration, elucidate the key terms for understanding the discourse, outline our symposium's primary focus areas, and pose research inquiries to guide our discussion. Through this comprehensive approach, we aimed to address the multifaceted challenges and opportunities presented by GenAI in promoting social and individual well-being.

## Motivation

The emergence of generative Artificial Intelligence (GenAI) has led to a profound intersection between society and human well-being (Kido, 2023). Although GenAI's potential enhancements to our daily lives are immense, they present unique challenges. As we further incorporate GenAI into societal frameworks, emphasis should not be solely on technological prowess or economic benefit. It is equally crucial

to ensure ethical considerations such as fairness, transparency, accountability, and the protection of privacy and security (Kido, 2017; Kido, 2019; Kido, 2022; Kido, 2022).

Consider the potential of GenAI in healthcare (Kido, 2019; Swan, 2023). GenAI diagnostic models must be both accurate and interpretable. The data utilized by these models should comprehensively represent different cultures, ages, genders, and geographic regions to accurately reflect societal diversity. The impact and potential of GenAI in the creative arts, education, and journalism are expected to be equally profound and challenging.

Given GenAI's significant influence, establishing ethical boundaries in this era is essential. This symposium explored this topic from two perspectives.

The first perspective focuses on the "Individual Impact of GenAI on Well-being." This study aims to clarify the mechanisms and issues in designing AI and GenAI to enhance personal well-being. In this context, the focus excludes societal aspects. Topics include Efficiency in Individual Work Enhancement, Personalized Medical Care, Support in Learning and Education, New Forms of Entertainment, and Privacy Concerns. The discussion should center on how AI and GenAI can enhance opportunities for individual well-being, emphasizing the emotional and quality-of-life implications of these technologies.

The second perspective, "Social Impact of GenAI on Well-being," highlights the mechanisms and issues to consider when incorporating societal aspects into GenAI for well-being. Topics may involve changes in employment structures due to automated AI, preventing the worsening of social inequalities, the potential to enhance the quality of health and medical treatment, the risk of misinformation spread, and ethical debates regarding AI's judgment criteria and values.

Exploring the social impact of GenAI on well-being is expected to shed light on both the potential benefits and risks of AI and GenAI. We must also explore ways to prevent machines from adopting human bias, ensure fairness, and produce socially responsible outcomes.

We welcome technical and philosophical discussions on the individual and social "Impacts of GenAI" on well-being, particularly in ethical design, machine learning software, robotics, and social media (though not exclusively). Topics such as interpretable forecasts, responsible social media, beneficial robotics, combating loneliness with AI/VR, and promoting personal health were pivotal to our discussions. This symposium aimed to share the latest advancements, current challenges, and potential applications related to social responsibility for well-being. Evaluation of digital experiences and insights into human health and well-being should be encouraged.

## Scope of Our Interests

We explored the following technical and ethical challenges concerning the Impact of GenAI on Well-being. We welcome technical research to clarify the possibilities and limitations of the "Impact of GenAI on Well-being". Our interests encompass, but are not limited to, the following:

### Impact on Individual Well-being

#### 1. Positive Impacts:

Research on the positive impacts of AI/ML technologies on individual well-being emphasizes several key areas.

**Personalized Learning:** Tailoring to individual learning styles and paces, GenAI can adapt educational materials to suit each learner, making education more effective and enjoyable.

**Efficient Daily Life:** AI support can streamline everyday tasks and decisions, from scheduling to content recommendations, and enhance individual productivity and leisure.

**Creative Assistance:** GenAI can generate novel ideas or suggestions to enhance human creativity, serving as a tool for artists, writers, and creatives.

We call for theoretical and empirical research to understand the possibilities and limitations of current AI/ML technologies and to discuss their positive impacts on individual well-being.

#### 2. Negative Impacts:

Research on the negative impact of Generative GenAI on individual well-being has underscored several vital areas.

**Overreliance:** Excessive reliance on AI may decrease independent decision-making and critical thinking skills.

**Privacy Concerns:** As more data are fed into AI systems, there is an increased risk of misuse and the mishandling of personal data.

**Mental health issues:** Overinteraction with AI may increase stress or deteriorate human relationships, affecting emotional well-being.

**Ethical Dilemmas:** The need to discern when to rely on AI suggestions or decisions is a crucial ethical consideration.

We call for research to understand the possibilities and limitations of current AI/ML technologies (Kido,2017; Kido, 2019) and discuss their negative impacts on individual well-being.

### 3. Research Challenges for Individual Well-being

Research on challenges for individual well-being has shed light on several key areas.

**Data Safety:** Research on technologies and policies to protect personal data and privacy.

**Mental Health Assessment:** Evaluating the impact of AI interactions on psychological health.

**Ethical Boundaries:** Investigating ethical standards for AI use in daily life.

**Maintaining Autonomy:** Exploring how to balance AI support with personal judgment.

The integration of GenAI has profound impacts on both social and individual levels. Deep understanding and appropriate research are essential for harnessing its benefits and addressing its challenges.

### Impact on Social Well-being

#### 1. Positive Impacts:

The positive impact of GenAI encompasses various aspects of social well-being.

**Educational Revolution:** GenAI can personalize learning environments and enhance the efficacy and accessibility of education.

**Content Abundance:** Rapid generation of diverse content can elevate entertainment and information dissemination.

**Equalizing Information Access:** GenAI can customize content to different linguistic and cultural groups, thereby promoting equal knowledge access

These advancements underscore GenAI's potential to influence social well-being positively by enhancing accessibility to education, entertainment, and other knowledge.

## 2. Negative Impacts:

The negative impact of GenAI affects various aspects of social well-being"

**Spread of Misinformation:** The risk of quickly generating and disseminating false information, such as deepfakes, is increased.

**Amplification of Bias:** AI trained on biased data may reinforce social prejudice.

**Job Displacement:** AI automation may lead to unemployment concerns in creative and information-based roles.

**Philosophical Concerns:** The blurred boundary between humans and AI-generated content raises questions about truth and values.

Discussions on the limitations and risks of current AI/ML technologies and their negative impacts on social well-being are essential.

## 3. Research Challenges for Social Well-being

The research challenges for social well-being cover several critical areas.

**Counteracting Misinformation:** Research on mitigating the negative impact of AI-generated false information.

**Bias Rectification:** Methods for Designing and Training AI Without Inheriting Social Biases.

**Role in education:** Investigating AI's Optimal Role of AI in Educational Settings.

**Social Assessment:** Methods to evaluate and predict AI's broader societal impacts of AI

We must develop desirable human-AI partnerships to promote the acceptance of AI results. We welcome ethical and philosophical discussions on this issue, including topics such as "Machine Intelligence vs. Human Intelligence," "How AI affects our human society or way of thinking," and

issues regarding the infodemic with social media, personal identity, etc.

## Conclusion

In conclusion, our examination of the positive and negative aspects of Generative Artificial Intelligence (GenAI) has illuminated the intricate relationship between technology and human well-being. This insight stems from the discussions held during last year's "Socially Responsible AI for Well-being." Through our discourse, we identified the key challenges, opportunities, and risks associated with leveraging AI for societal improvement. As the planners and coordinators of the AAAI SSS24 symposium, we are committed to disseminating the latest advancements, addressing existing obstacles, and exploring the potential benefits and risks of GenAI implementations.

## Acknowledgments

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