

Whitepaper: ProSocial AI and the UN Sustainable Development Goals

Harnessing Technology for Planetary Health and Human Wellbeing

Context

This whitepaper reflects the discussions held during the UNGA79 Science Summit, where three sessions under the umbrella of ProSocial AI explored the intersection of Artificial Intelligence (AI), social well-being, and planetary health. These sessions addressed the growing need for AI to be developed and deployed [to benefit humanity and the planet](#), emphasizing ethical frameworks and inclusive policies.

The [Global Digital Compact \(GDC\)](#) launched by the United Nations in September 2024, aims to create a shared framework for governing the digital realm responsibly and inclusively. With the rapid rise of AI and other emerging technologies, the GDC seeks to ensure universal digital access, protect human rights, and promote equitable technological benefits for all. Formally adopted on September 22, 2024, the GDC provides guidance on managing digital risks, fostering collaboration, and enhancing trust in technologies globally. This initiative gains further urgency in light of the preceding UN High-Level Report on [Governing AI for Humanity](#), which emphasizes the critical need for global cooperation to ensure AI serves the public good. In this context, Prosocial AI offers a practical pathway to fulfill the GDC's vision by creating AI systems that are tailored, tested, and targeted to bring out the best in and for people and the planet, ensuring technology advances in alignment with humanity's well-being and sustainability.

The first session, "Technology for the World We Want," looked at how AI can serve as a transformative force for societal good, focusing on aligning AI development with human values and leadership. The second session, "Agency Amid AI for All," highlighted the risks AI poses to human autonomy and the importance of ensuring that AI empowers, rather than diminishes, human agency. The final session, "A Holistic Perspective to Health," underscored AI's potential as a catalyst for a more holistic approach to health, emphasizing the interconnectedness of planetary health and human wellbeing. Together, these discussions confirmed the need to reframe AI from a commercial determinant of life and living to a social determinant of well-being. The latter underpins the concept of ProSocial AI, which advocates for a new paradigm where AI is systematically designed to promote equity, sustainability, and human-centered innovation.

Introduction

AI has begun to influence every facet of human existence, transforming industries, reshaping economies, and redefining social dynamics. However, the full potential of AI is yet to be realized in a manner that genuinely serves humanity and the environment. As it stands, much of AI's progress is driven by commercial imperatives, which risks overshadowing the broader social and ecological imperatives that are essential for a sustainable future.

ProSocial AI, a concept focused on the ethical and inclusive design of AI, presents a new paradigm. It seeks to realign technological innovation with values such as equity, sustainability, and human-centered goals. This whitepaper explores the principles, opportunities, and challenges of ProSocial AI and outlines actionable strategies to ensure that AI evolves as a force for good—one that enhances human well-being while protecting and preserving our planet.

A. ProSocial AI: A Human-Centered Approach

ProSocial AI is grounded in the notion that AI should be designed to amplify human capabilities, rather than replace them. This approach is distinct from the prevalent models of AI that focus primarily on efficiency, automation, and optimization. ProSocial AI emphasizes the complementarity of human and artificial intelligence, ensuring that AI systems empower individuals, enhance creativity, and improve decision-making without eroding the intrinsic qualities that make us human—such as empathy, ethical reasoning, and emotional intelligence.

The core idea behind ProSocial AI is that AI systems should be tailored, trained, tested, and targeted to bring out the best in and for people and the planet. This means developing AI that addresses the multidimensionality of human existence: aspirations, emotions, thoughts, and sensations. At the individual level, AI should help people achieve their fullest potential. At the collective level, AI should promote societal well-being, equity, and environmental sustainability. We can ensure that technology supports a healthier, more balanced world by designing AI systems that understand and optimize the interconnections between these dimensions.

AI can potentially address the critical interplay between individual well-being and collective planetary health. For example, AI-driven tools can enhance decision-making by providing insights based on vast data sets that cover everything from health outcomes to environmental impacts. AI can augment human expertise in the workplace by handling routine tasks, enabling professionals to focus on more complex, higher-order responsibilities. This approach transforms AI into a collaborative partner for humans, rather than a competitive threat.

B. A Call to Reframe AI: From Commercial to Societal Value

A significant challenge in realizing the potential of ProSocial AI is shifting the focus from commercially driven AI models to those that prioritize human and social capital, in cohesion with the UN Sustainable Development Agenda, and their successors. While AI has undeniably increased productivity and efficiency across sectors, these gains often come at a cost: the erosion of human agency, the deepening of social inequalities, and the exacerbation of environmental degradation.

One of the key drivers behind the current trajectory of AI development is the quest for profit. Many AI systems are designed to optimize business operations, streamline processes, and maximize financial returns. While these objectives are not inherently negative, they can overshadow the broader potential of AI to solve some of the world's most pressing challenges. The reality is that the same algorithms that increase corporate profitability can also be applied to mitigate global crises such as climate change, social inequities, and public health challenges. However, without a deliberate effort to realign AI development with these goals, we risk squandering AI's transformative potential.

ProSocial AI advocates for a paradigm shift: AI must be reframed as a tool for planetary health and human well-being, rather than merely an instrument for commercial success. This shift requires a people and planet-centered approach, involving governments, academic institutions, corporations, and civil society to collaborate on designing, regulating, and deploying AI technologies that prioritize human and ecological health. Furthermore, policymakers must introduce ethical frameworks and regulations to ensure that AI development remains aligned with the long-term goals of societal good.

C. The Four Pillars of ProSocial AI

ProSocial AI is built on four interconnected pillars that serve as a foundation for ensuring that AI development is ethical, equitable, and sustainable:

1. **Human Empowerment and Agency:** AI should serve to amplify human agency, providing individuals with the tools, knowledge, and confidence to make informed decisions. This requires AI systems to be designed with a human-centric approach, where individuals retain control over how AI interacts with their lives. For example, AI systems in healthcare should enhance patient autonomy by offering personalized treatment options that align with their values and preferences.
2. **Inclusivity and Equity:** The benefits of AI must be distributed equitably, ensuring that marginalized and underserved populations are not left behind. In the current landscape, access to AI technologies is often concentrated in

wealthier regions and among privileged demographics. ProSocial AI advocates for inclusive design, ensuring that AI systems are accessible to people in developing regions, rural areas, and disadvantaged communities. This could involve developing low-cost AI solutions for education, healthcare, and agriculture that are tailored to the specific needs of these populations.

3. **Safeguarding the planet:** Human health is conditioned by planetary health. Hence AI must be used to protect and preserve the environment, not to contribute to its degradation. Planetary health boundary concerns, such as climate change, biodiversity loss, and resource depletion, are some of the most pressing challenges of our time. AI has the potential to provide innovative solutions to these problems, from optimizing energy consumption and reducing carbon emissions to managing ecosystems promoting sustainable agricultural practices, and guiding decision-making for sustainable mountain tourism. However, to realize this potential, AI systems must be developed and deployed with an acute awareness of their longer-term impact on planetary health and human wellbeing
4. **Ethical and Moral Responsibility:** AI developers, policymakers, and organizations have a moral obligation to ensure that AI systems are transparent, accountable, and fair. This involves embedding ethical considerations into the entire AI development process—from design and testing to deployment and monitoring. Ethical AI frameworks should address issues such as bias, discrimination, and data privacy, ensuring that AI systems do not perpetuate existing inequalities or create new forms of harm.

D. The Urgency of ProSocial AI in Addressing Global Challenges

The need for ProSocial AI is becoming increasingly urgent in light of the global challenges we face today. The intersection of environmental crises, social inequality, and global health challenges requires innovative, scalable solutions—solutions that AI is uniquely positioned to provide if developed with the right priorities in mind.

1. **Environmental Degradation:** Climate change, deforestation, pollution, and biodiversity loss are accelerating at an alarming rate. According to estimates, environmental degradation costs the global economy between \$5 and \$7 trillion annually. AI can help address these issues by analyzing environmental data, predicting climate-related disasters, and optimizing resource management. For example, AI-driven models can forecast the impact of deforestation on local ecosystems or optimize water usage in agriculture to reduce waste. However, the development of such technologies must prioritize sustainability over profit, ensuring that the primary goal is to protect the environment rather than extract resources for short-term gain.

2. **Global Health Inequities:** The COVID-19 pandemic exposed the deep inequalities that exist within global health systems. While some countries were able to rapidly deploy AI tools to track and mitigate the spread of the virus, others—particularly in low-income regions—lacked the infrastructure and resources to do the same. ProSocial AI can help bridge this gap by making healthcare more accessible to underserved populations. AI systems can analyze social determinants of health to provide personalized healthcare solutions, predict disease outbreaks, and optimize medical supply chains. Moreover, AI can be used to enhance mental health services, particularly in areas where access to care is limited.
3. **Education and Lifelong Learning:** AI can play a transformative role in education and skill development, helping to close the knowledge gap between different regions and social groups. ProSocial AI can deliver personalized learning experiences that adapt to the needs of each student, ensuring that education is both inclusive and effective. This is particularly important in developing countries, where traditional education systems may be under-resourced. Additionally, AI can support lifelong learning by helping individuals upskill and reskill in a rapidly changing job market, ensuring that they remain competitive in an AI-driven economy.
4. **Sustainable Natural Resource Utilization:** As the global population grows, ensuring the sustainable use of water, energy, and food is becoming an increasingly urgent challenge. AI can play a pivotal role by optimizing resource management across these sectors. For instance, AI-driven precision agriculture systems can analyze climate patterns, monitor soil and water conditions in real-time, and recommend optimal planting, irrigation, and harvesting strategies to improve crop yields while conserving water. In the energy sector, AI can optimize energy grids, predict demand, and integrate renewable energy sources more efficiently, reducing waste and carbon emissions. ProSocial AI must prioritize the development of low-cost, scalable solutions that ensure equitable access to these innovations, especially for farmers and communities in low-income regions. By doing so, we can promote sustainability, reduce the environmental footprint, and ensure that food, water, and energy resources are available for future generations.

E. Investing in Human Agency: Avoiding the Erosion of Autonomy

One of the most significant risks associated with the rise of AI is the potential erosion of human autonomy. As it expands into areas like financial planning and healthcare, it risks exacerbating inequalities by concentrating power and resources in the hands of a few, leaving many feeling disempowered. The World Health Organization (WHO) emphasizes that [social determinants of health](#)—such as money, power, and access—significantly influence individual well-being.

If AI comes to dominate decision-making without careful oversight, individuals may become passive recipients of AI-generated outcomes, losing their sense of autonomy and agency, without even being aware of the transition from passive to active decision-making.

To counter this trend, it is essential to invest in human agency. AI systems should be systematically designed to enhance critical thinking and promote informed decision-making, rather than simply providing automated recommendations. This requires a shift in how we approach AI development—moving away from models that prioritize efficiency and convenience and toward models that prioritize human empowerment. For example, in the healthcare sector, rather than simply providing automated diagnosis, AI systems could present patients with multiple treatment options, empowering them to make decisions based on their own values and preferences.

Moreover, to avoid the depletion of human agency, we must invest in a type of education that curates on the one hand critical thinking, and multidisciplinary problem solving, and on the other hand digital literacy. As AI becomes ever more pervasive, individuals need to understand how AI systems work, how they make decisions, and where their limitations lie. Digital literacy programs should focus not only on technical skills but also on ethical awareness, ensuring that individuals can engage with AI technologies responsibly and autonomously.

F. Implementation Strategies for ProSocial AI

To effectively implement ProSocial AI, several strategic approaches must be adopted:

1. **Multi-dimensional Integration:** ProSocial AI should be developed using an integrated framework that considers the environmental, social, and economic dimensions of human existence. This requires cross-sector collaboration among technologists, environmentalists, health professionals, and policymakers to ensure that AI solutions address multiple aspects of well-being. For example, AI tools used in healthcare should not only focus on treating diseases but also consider social determinants such as housing, education, and nutrition that impact health outcomes.
2. **Ethical AI Frameworks:** Developing ethical guidelines specific to ProSocial AI is essential. These guidelines should focus on fairness, accountability, transparency, and the inclusion of diverse perspectives in AI development processes. Ethical AI ensures that the technology is developed and deployed in a manner that respects human dignity and values. It also requires regular monitoring and updates to prevent unintended consequences such as bias or discrimination.
3. **Public Engagement and Policy Support:** Engaging the public in the development and deployment of ProSocial AI helps align the technology with

societal values and needs. Governments and policymakers must also provide robust regulatory frameworks to promote the responsible use of AI while preventing potential misuse. This could include introducing incentives for businesses to develop AI solutions that prioritize social and environmental well-being, as well as penalties for those that do not.

4. **Capacity Building and Education:** Building the capacity of current and future generations to understand and work with ProSocial AI is vital. Educational programs should include training in both the technical aspects of AI and its ethical, social, and environmental implications. This dual focus will prepare individuals to use AI in ways that enhance both personal and planetary health.
5. **Sustainable and Inclusive AI Development:** AI development must be sustainable and inclusive, ensuring that its benefits are distributed equitably across different regions and communities. This includes making AI solutions accessible in low-resource settings and tailoring them to local contexts and challenges. For example, AI systems designed for agriculture in low-income countries should focus on addressing the specific challenges faced by smallholder farmers, such as water scarcity or lack of access to markets.

Conclusion

ProSocial AI offers a transformative potential to align technological advancements with the goals of enhancing human well-being and promoting planetary health. ProSocial AI can help create a more sustainable, just, and healthy world by focusing on ethical development, multidimensional integration, and inclusive policies. The commitment to developing AI as a positive social force is a technological endeavor and a moral imperative to ensure a balanced coexistence of humans and nature.

As we continue to integrate AI into the fabric of society, we must prioritize human agency, equity, and environmental stewardship. Without a deliberate effort to align AI with these values, we risk exacerbating existing inequalities and accelerating environmental decline. The time to act is now—by harnessing AI’s potential for good, we can build a future that benefits both people and the planet.

The question is not whether AI will shape our future, but how we choose to shape AI.

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