

# **SOCIAL PHILOSOPHIES IN JAPAN’S VISION OF HUMAN-CENTRIC SOCIETY 5.0 AND SOME RECOMMENDATIONS FOR VIETNAM**

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<Draft Paper No. 20240416-2-v1>

## **Abstract**

This essay briefly summarizes the key characteristics and social philosophies in Japan’s vision of Society 5.0. Then it discusses why Vietnam, as a developing country, can learn from the experiences of Japan in establishing its vision for an AI-powered human-centric society. The paper finally provides five concrete recommendations for Vietnam toward a harmonic and human-centric coexistence with increasingly competent and prevalent AI systems, including: Human-centric AI vision; Multidimensional, pluralistic understanding of human-technology relation; AI as a driving force for socio-economic development; Bottom-up, participatory approach for building the vision; and Sustainability and inclusion in the adoption of AI.

**Keywords:** Artificial Intelligence; Human-centric AI governance; Society 5.0; Japan; Vietnam

## I. Introduction – The Rise of Artificial Intelligence in the World and Vietnam

Artificial intelligence leaves no stones in academic discipline and industry fields unturned. From health care, legal, manufacturing to education, business, and literature. The year 2023 marked the unprecedented popularity of Generative AI with many Chatbots capable of generating multimodal human-like content from texts, graphics, music, and videos. Grand View Research (2023) estimates the global AI market size at USD 196.63 billion in 2023 and is anticipated to grow at a compound annual growth rate (CAGR) of 37.3% from 2023 to 2030. In the business sector, areas where AI are most deployed include management, quality control, cyber security, fraud detection, and customer care (Bharadiya et al., 2023). In the most recent report about Gen AI by McKinsey, 60% of respondents reported the adoption of Generative AI in their organizations and 40% of those organizations planning to invest more in Gen AI (McKinsey, 2023). The widespread of AI promises not only commercial benefits but also overall enhanced human experience.

In 2021, the Prime Minister of Vietnam issued Decision No. 127/QĐ-TTg outlining National Strategy for Research, Development, and Application of Artificial Intelligence until 2023. The country's objective is to position itself in the top 5 countries in ASEAN in top 60 worldwide in terms of AI development, research and application. Two years following the implementation of the National Strategy, Vietnam achieved a ranking of 59<sup>th</sup> in Government readiness for AI worldwide and 5<sup>th</sup> within ASEAN (Oxford Insights, 2023).

In alignment with this strategic direction, numerous generative AI application platforms in Vietnam have been introduced and tested, including: FPT Group's GenAI system; ViGPT, VinBase 2.0 of VinBigData Joint Stock Company (Vingroup); “PhoGPT” of VinAI company (BĐTĐCS, 2024). VNPT, the leading telecommunication company in Vietnam, has developed 100 AI models encompassing 8 human-like capabilities including vision, speech, listening, problem-solving, automation, video-making, and information analysis (*Ministry of Science and Technology*, 2023). Viettel Cyber Space, another key player in the Vietnamese AI landscape, provides data mining, text-to-speech and speech-to-text, chatbot and callbot services tailored for the local market. Furthermore, Vietnamese research institutes actively invest in high-impact publications. In 2022, VinAI, a subsidiary of Vingroup JSC, achieved a significant milestone by becoming the first Vietnamese entity to be ranked within top 20 global companies for leading research in AI by Thundermark Capital, based on its publication index and conference proceedings at top AI research conferences (*VinAI*, 2022).

Clearly, AI technology has gradually become an indispensable part of daily life and nearly integral for the formulation of future business strategies. The trend of *datafication*, *algorithmization*, and *platformization* to serve daily activities (entertainment, following news, buying and selling, recruiting, etc.) has become inevitable. An assessment published in the Communist Party of Vietnam Online Newspaper (BĐTĐCSVN, 2024) suggests that AI technology has the potential to reshape the balance of power, and even the fundamental structure of the global order. The technology engenders network externalities effects that increases competition between major countries (Vuong & Ho, 2024). Therefore, investing in artificial intelligence presents an opportunity to create breakthroughs in major areas of national strategies. However, significant challenges persist in the realm of AI management and development, and applications.

## II. The Japanese Approach to Artificial Intelligence

Why Should Vietnam learn from Japan?

We propose three reasons why studying Japan’s vision for an AI-powered human-centric society could offer valuable insights for Vietnam’s strategies in developing and adopting the new wave of smart technologies. These perspectives are summarized in Table 1.

*Table 1: Why Should Vietnam Learn from Japan in AI Governance?*

| Japanese advancement   | Parrarel Visions  | Silimar Culture   |
|--|---|---|
| <ul style="list-style-type: none"> <li>• Experienced in the robotic culture</li> <li>• Being ahead in competing with powerful nations of AI</li> </ul> | <ul style="list-style-type: none"> <li>• AI as the driving force for socio-economic development</li> <li>• AI as a tool to resove social issues such as aging population, lack of innovation, job creation, etc.</li> </ul> | <ul style="list-style-type: none"> <li>• The influence of Confucianism and Buddhism.</li> <li>• The folk beliefs in animism.</li> </ul> |

Firstly, with its long-lasting and robust robotic culture (Robertson, 2018), Japan has a rich folk and popular culture of envisioning human-robots and human-AI coexistence. These visions have long been deeply ingrained into collective imaginations, reflected in widely enjoyed cultural icons such as Doraemon, Gundam, Astro boys, etc. Those fictional robot characters are also very popular among Vietnamese children.

Furthermore, Japan has timely acknowledged the importance of AI in geopolitics thus has prompted its own development projects to compete with leading AI countries. For example, the Tokyo Institute of Technology, Tohoku University, Fujitsu, and the state-funded RIKEN research centers are collaborating to develop a Japanese LLM utilizing the Japanese supercomputer Fugaku. This model is trained in Japanese and anticipated to comprise at least 30 billion parameters. Another project, funded by Japan's Ministry of Education, Culture, Sports, Science, and Technology, focused on learning published research and generating scientific hypotheses, initially incorporating 100 billion parameters. Though these Japanese models are trained in a significantly smaller data size of ChatGPT with 175 billion parameters of GPT-3 and speculated 100 trillion parameters of GPT-4 (Hornik, 2023), the development of a LLM model trained in a non-English database is expected to enhance cultural alignment to local users. Similarly, as documented in the section on the rise of AI in Vietnam, many Vietnamese firms are now developing their own LLMs.

Thirdly, there is a parallel between the Japanese and Vietnamese visions in developing AI technologies, making Japanese AI strategies pertinent and valuable to the Vietnamese context. In Japan, the objectives of the Society 5.0 include (1) Create new value for the development of future industry and social transformation, (2) Address economic and social challenges, (3) Reinforce the “fundamentals” for STI (science, technology, and innovation), and (4) Build a systemic virtuous cycle of human resource, knowledge, and funding for innovation. To realize these objectives, the Japanese National AI Strategy 2019 prioritizes key areas such as health, medical care, and long-term care; agriculture; national resilience (to disasters); transportation infrastructure and logistics; and regional revitalization. This strategic focus is driven by Japan's imperative to address pressing social issues such as declining birthrate, aging population, shortage of human resources, as well as the increase in natural disasters. Facing similar societal issues, Vietnam associates the application of AI with socio-economic development as well as contribution to creating a breakthrough in production capacity and improving national competitiveness, promoting sustainable economic growth.

Fourthly, the cultural similarities between the two countries play a crucial role in shaping and implementing technological visions. Both Vietnamese and Japanese society experiences strong influences from Confucianism, Buddhism, and folk beliefs in animism. These deep cultural roots permeate everyday human-to-human interactions, labor relations, employer-employee relations, etc. (Mantello et al., 2021; Mantello et al., 2023; Miyashita, 2021). Therefore, learning from an advanced robotic culture in Japan will offer many insights for Vietnam.

Next section will provide a summary of Japan's vision for Society 5.0.

## The Japanese Society 5.0

The Japanese national strategy of AI is centered around the concept of Society 5.0, characterized as “A human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space” (Cabinet Office Japan, 2019). Within this framework, the Cabinet Office of Japan proposed seven social

principles of human-centric AI: the human-centric AI principle; the principle of education/literacy; the principle of privacy protection; the principle of ensuring security; the principle of fairness, accountability, and transparency; the principle of innovation. These principles are based on the basic philosophy that AI development and deployment must respect three values: 1) *Human Dignity*; 2) *Diversity and Inclusion*; 3) *Sustainability* (Cabinet Office of Japan, 2019). Indeed, a more effective adoption of smart technologies that **adhere to** universal values seems to be the only way forward, not only for Japan but many societies. The Plan further emphasizes that AI, besides robots, the Internet of Things, and big data, is expected to coexist with humans, creating a supersmart society that provides differentiated, customized services aligned with human needs (Cabinet Office, 2015).

To implement this strategy, Japan adopts an AI regulatory policy that follows a “risk-based and soft law” approach. This digital governance approach employs non-binding goal-based guidelines and articles instead of rule-based hard law to guide and support companies in implementing their AI strategies (Hiruki, 2023). According to the AI Governance in Japan Ver1.1 report published by the Ministry of Economy, Trade, and Industry (METI) in July 2021, the Japanese government avoids using one-size-fits-all guidelines to ensure companies with varying capacities and AI expertise can derive benefits. This approach, characterized as “agile governance” (Hiruki, 2023, p. 3) aligns with Japan’s National AI Strategy, which seeks to foster trust for the citizens and leverage the democratic governance (Palteli, 2022). **In addition, the Japanese government’s implementation of its “AI for everyone” strategy includes soliciting public feedback on the METI report. They emphasize the involvement of multiple stakeholders in the discussion, regulation, and implementation of AI. This approach reflects Japan’s commitment to agile governance in response to the AI. By doing this, Japan thrives beyond the criticism of liberal democracy as being old-fashioned and unresponsive to citizens’ demands, endeavors to build “Good AI Society” (Linde & Peter, 2018).**

In the next section, we will delve into specific recommendations for Vietnam to learn from Japan’s success and limitations in realizing the vision of AI-powered and human-centric Society 5.0.

### III. Recommendations for Vietnam



*Figure 1: Recommendations for future AI visions in Vietnam*

#### **Human-centric AI visions**

The “super-smart society” in Society 5.0 entails meeting the diverse need of society by providing necessary products and services in the requisite amount to individuals when they need them. This vision emphasizes the provision of high-quality services so that people can lead comfortable and vigorous lives (Cabinet Office, 2019), making human both the central *actors* as well as *beneficiaries* of innovation-driven technology. This idea resonates universally and is aligned well with the ideal of *min ben* (民本), or ‘people as root,’ which hold significant importance, if not the most important in East Asian political culture (Nguyen & Ho, 2019; Sabattini, 2012).

The concept of *min ben* (民本) traces to the original writings of the Chinese poet and thinker, Jia Yi (贾谊, 200 – 169 BCE), renowned for his discussion on the fall of the Qin Dynasty.

In its longer and rhetorical form, the expression of the concept is *yi ren wei ben* 以人为本, which can be translated to Vietnamese as ‘*lấy dân làm gốc*’ and to English as ‘to consider the people as the root’, sometimes expressed as ‘putting people first.’ This concept has been endorsed by

political figures, thought leaders, and political parties in East Asia such as Ho Chi Minh (Trịnh Văn Quyết, 2023), Hu Jintao's administration's emphasis on people-centered politics (Li & Hua, 2023; Magagnin, 2016), and the Communist Party of Vietnam's 13th Party Congress's documents' focus on '*considering the citizens as center*' (lấy nhân dân làm trung tâm) (Lê Doãn Sơn, 2024).

Indeed, positioning the citizens, their well-being and needs at the center is increasingly important in the context of growing AI-mediated social and political interactions. Moreover, the arrival of the powerful generative AI has accentuated the challenges to both government and the market in ensuring people's needs and desires while preserving social justice. Therefore, in pursuing a human-centric vision of AI-powered society, it is paramount to consider the inherent nature of the relationship between the state and the people and its manifestations in political culture and structure.

### **Multidimensional, pluralistic understanding of human-technology relation**

As renowned as Japan is for its futuristic and advanced technological innovations, its society is saddled with many contradictions arising from the conflicts between two contrasting facets. On the one hand, there is the modern, industrialized way of life that prioritizes *individualism, consumerism, flexibility, and productivity*. On the other hand, Japan's strong collectivist culture is steeped in tradition of Bushidō (武士道)—way of the warrior, whose code of conducts demands meticulousness, unconditional loyalty, daily devotion, respect of hierarchy, and righteousness. For instance, even amid the height of the COVID-19 pandemic, when 80% of companies promote remote work, many remained reluctant to abandon the long-standing paper-based process that involved the stamping of the personal 'hanko' (seal) to signify approval and authority (Shoji, 2020). The contrast in Japan between its futuristic innovations and the greyest generation holding onto symbols of their conservative, traditional culture highlights the unique context of Japan for studying technological adoption behaviors.

Technologies unarguably bring about unexpected changes in society, and Japan's experience with technologically induced social changes clearly provides an example worthy of examination for Vietnam. Given the diverse nature of Vietnamese society, focusing only short-term economic gains from AI adoption such as time-saving, increased productivity, personalization, etc. would be short-sighted. On the one hand, following the structuralist/Marxist critique of AI technologies, scholars strongly argue that narratives about AI development and adoption must not be monopolized by technologist and software engineers. It is imperative to consider who may be marginalized or left behind in the process of AI adoption (Hanemaayer, 2022). On the other, it is equally important to not succumb to the mindset of the *apocalittici* (i.e., the doomsayers).

Clearly, for Vietnam to implement new technologies in the best interests of its people, a multidimensional, pluralistic understanding of human-AI relationship is needed. In this regard, national media discourse must refrain from oscillating between the zealotry of the *apocalittici* (i.e., the doomsayers) and *integrati* (i.e., the techno-enthusiasts). Instead, it should maintain a more nuanced view of how AI should be integrated into society.

### **AI as a driving-force for socio-economic development**

Similar to Japan's efforts in harnessing AI technologies for solving challenging social issues such as the hyper-aging population, the stagnated economic growth, etc., it is vital that AI technologies' adoption in Vietnam is envisioned to serve as the catalyst for social and economic development. In other words, achieving the human-centric AI-powered society entails leveraging AI technologies as a driving-force for socio-economic development. While it is acknowledged that AI technologies will surely create unexpected socio-economic changes but among these changes (Vuong, 2022), within these changes lie opportunities for generating social goods such as job opportunities, new innovations, making education more accessible for many people, and enhancement in the quality of the workforce, etc. Subsequently, the arrival of new, powerful technologies will also necessitate institutional changes to ensure that the transformed bureaucracies can adapt to the new context.

### **Bottom-up, participatory approach for building the vision**

The origin of Society 5.0 vision stems from a collaborative and participatory approach between the government and industry. According to Prof. Harayama of the Council for Science, Technology and Innovation from Cabinet Office of Japan, lies in the core of this strategy an "Innovation Strategy", wherein bottom-up advancement, starting from frugal innovation in science and technology, propels economic growth. Within this innovation system, the industry-academia collaboration is actively promoted. Moreover, the formulation of Society 5.0 involves not only experts but traditionally non-visible actors such as women and young people.

This bottom-up, participatory approach holds significant value as input from diverse groups of people are needed to foster healthy, society-wide discussions the utilization of new technologies. Furthermore, it is aligned with the ideal of 'People know, people discuss, people do, people monitor, people receive (the results of development)' and it reflects the well-documented trend toward increasing people/citizen participation in governance in Vietnam (Andrew-Wells Dang et al., 2015).

### **Sustainability and inclusion in the adoption of AI**

Finally, in order to bolster sustainable and inclusive adoption of AI, regulations and guidelines need to consider ethical matters such as *undermining social hierarchy, lack of transparency, data privacy loss, privacy loss, and fairness/social justice concern* in developing, using, and managing AI (Ho et al, 2023). This includes clarification of purposes of data collection, transparency, user's consents, and enforcement of data protection. Besides, media discourse is also a vital channel to foster discussion about ethical and responsible implementation, development and management of AI. Overall, it is important that AI adoption actually contributes to nationally enshrined values such as *strong country, rich people, equitable*



*society, democracy, civilizing* (Ha Dang, 2008; Nguyen, 2022; Pham & Vuong, 2008), and traditional values including *patriotism, diligence, and studiousness* (Ho, 2006).

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