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Regulating Artificial Intelligence in the Philippines: Policy Paper

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I. Introduction

In recent years, the emergence of artificial intelligence (AI) has slowly but inevitably transformed the global technological landscape, heralding a new era of advancements that may have seemed impossible in the past decades. This AI-driven paradigm shift has ushered in substantial enhancements across a myriad of sectors, including but not limited to finance, national security, transportation, and communication. Its trajectory is marked by relentless innovation as it forges new pathways and benchmarks of progress. From pushing improvements in the health sector in terms of more precise diagnostics and accelerated drug discovery to advancing manufacturing by providing leveraged sophisticated algorithms to refine production processes and improve the efficiency of the delivery of goods and services, there is no doubt that AI has come a long way in the ways of our economy.

Despite the recognition of AI's role in fostering innovation and streamlining operational efficiency, its swift integration into the fabric of society raises a host of complex challenges. These challenges compel a rigorous analysis of AI's economic repercussions and underscore the urgency for judicious regulatory frameworks. The rapid expansion of AI applications has been met with measured skepticism among various stakeholders, including scientists, economists, and policymakers. This ambivalence stems from a prudent recognition of the potential risks associated with the unchecked proliferation of AI systems.

Consequently, this paper aims to dissect the multifaceted imperative for AI regulation within the Philippine context. Part I aims to provide a critical assessment in the context of Philippine-specific challenges and the current state posed by AI on issues. In Part II, attention is directed toward the existing and ongoing international legal and regulatory landscape of AI, providing a comparative backdrop. Founded on this comparative analysis, Part III delves into a comprehensive analysis of the unique challenges the Philippines faces in implementing AI regulation. Building on this analysis, the part also proposes tailored regulatory approaches and frameworks. In the end, Part IV synthesizes these discussions, evaluating whether the Philippines is currently able and prepared to adopt new regulations for AI.

What's wrong with artificial intelligence?

At its core, artificial intelligence (AI) has emerged as a paradoxical entity, celebrated for its potential to revolutionize industries yet alarmed by the unprecedented challenges it poses. Its ability to analyze and synthesize information at a scale and speed beyond human capacity has driven remarkable advancements in various sectors. There is no doubt that AI's contribution to global economic activity could be as much as \$13 trillion by 2030, which would add about 1.2 percent to global GDP growth annually.¹

Yet, alongside its transformative potential, AI poses significant challenges that necessitate careful consideration. The disruptive power of AI extends beyond the promise of progress, threatening significant socio-economic disruption. For instance, while it can detect diseases from medical images, AI systems are only as good as the data they are trained on. If an AI system is trained on a dataset that is not comprehensive or representative of the diverse patient populations, it can lead to misdiagnosis, particularly for underrepresented groups.²

Another palpable concern is the impact of AI on the labor market. The automation of routine tasks has already displaced workers in manufacturing and is encroaching on sectors like transportation with the advent of self-driving vehicles.³ The potential for widespread unemployment and wage stagnation as a result of AI-induced automation necessitates a rethinking of labor policies and social safety nets.

Another one of the most pressing issues raised by AI industry experts is the possibility of a new generation of powerful AI tools harming people, particularly in terms of spreading disinformation and enabling discrimination.⁴ One identified threat from AI is the threat to democracy brought by the spreading of misinformation. Additionally, there is a heightened risk of digital content manipulation, with produced content mirroring reality too accurately to the point where viewers have difficulty identifying which information is fake or factual.⁵ This is

¹ Bughin J and others, 'Notes from the AI Frontier: Modeling the Impact of AI on the World Economy' (*McKinsey Global Institute* 4 September 2018) <<https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-modeling-the-impact-of-ai-on-the-world-economy>> accessed 28 December 2024

² Obermeyer Z and others, 'Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations' (2019) 366 *Science* 447 <<https://pubmed.ncbi.nlm.nih.gov/31649194/>> accessed 2 January 2024

³ Frey CB and Osborne MA, 'The Future of Employment: How Susceptible Are Jobs to Computerisation?' (2017) 114 *Technological Forecasting and Social Change* 254 <<https://www.sciencedirect.com/science/article/pii/S0040162516302244>> accessed 2 January 2024

⁴ Roose K, 'A.I. Poses "Risk of Extinction," Industry Leaders Warn' (*The New York Times*, 30 May 2023) <<https://www.nytimes.com/2023/05/30/technology/ai-threat-warning.html>>

⁵ Jeff Loucks 'Deepfakes and the Dangers of Ai' (*Deloitte United States*, 29 October 2019) <<https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/deepfakes-artificial-intelligence-ethics.html>>

also related to AI-generated "deep fakes"—highly realistic and convincing video or audio forgeries—that have the potential to disrupt democratic processes and stir social discord. A recent incident highlighting this was brought to public attention. A manipulated video depicting a newscast on an investment platform, supposedly announced by a specific individual, was circulating online. This disturbing incident highlights the rise of deep fake technology, which possesses the capability to manipulate and distort audiovisual content for political and economic gains.⁶ Adding to this layer, AI systems are not immune to the biases present in their training data. For instance, facial recognition technology has been shown to have lower accuracy rates for certain demographic groups, raising concerns about discrimination and racial profiling.⁷



Figure 1.1 An example of the utilization of deep fakes⁸

Privacy infringement is another critical issue. AI's reliance on data can lead to invasive surveillance and data harvesting practices, with individuals often unaware of how their information is used or secured. This is particularly concerning in regions like Southeast Asia, where data protection laws may be less stringent or inconsistently enforced.⁹ Moreover, the security vulnerabilities introduced by AI are a growing worry. The proliferation of Internet of

⁶ Esmael L, 'PH Needs Multifaceted Approach vs "Deepfake" Videos Used to Scam Pinoys' (*CNN Philippines* 3 January 2024) <<https://www.cnnphilippines.com/news/2024/1/3/cybersecurity-deepfake-technology.html>> accessed 3 January 2024

⁷ Buolamwini J and others, 'Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification *' (2018) 81 *Proceedings of Machine Learning Research* 1 <<https://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf>>

⁸ Minna, 'Deepfakes: An Unknown and Uncharted Legal Landscape' <<https://towardsdatascience.com/deepfakes-an-unknown-and-uncharted-legal-landscape-faec3b092eaf>> accessed 3 January 2024

⁹ Mozur P and Moe W, 'A Genocide Incited on Facebook, with Posts from Myanmar's Military (Published 2018)' *The New York Times* (15 October 2018) <<https://www.nytimes.com/2018/10/15/technology/myanmar-facebook-genocide.html>> accessed 28 December 2024

Things (IoT) devices, many of which are powered by AI, has expanded the attack surface for cyber threats, making critical infrastructure and personal data more susceptible to attack.¹⁰

Now, this only represents a preliminary overview of the potential consequences associated with the continuous advancement of artificial intelligence. This emergent structure, while replete with opportunities for innovation and progress, simultaneously harbors the capacity for adverse impacts, necessitating a more comprehensive and critical examination. Because of this, institutions and individuals have taken steps to make sure that the aforementioned threats do not come to life.

For what reasons does this discourse merit our consideration?

Before we further contextualize and examine the current state of AI in the Philippines including its specific problems and challenges associated with its adoption and regulation, we must first establish the foundations of why we have this discourse in the first place. Firstly, the Philippines, like many other countries, is on the cusp of significant technological changes driven by the Fourth Industrial Revolution. Thus, we need to realize that AI is undeniably the future, and engaging in such discussions about AI adoption and regulation ensures that the Philippines is not merely a bystander but an active participant in shaping its technological future.

Furthermore, AI adoption comes with its own set of challenges and risks, as discussed in the previous section. A national conversation on AI regulation is therefore necessary to contextualize and address these issues proactively, as several sectors in the country are actively using it currently. This ensures that AI is used in a way that aligns with the country's legal, ethical, and social standards. Given this, we have existing legal and regulatory frameworks that intersect with AI, such as the Data Privacy Act of 2012, which governs the collection and processing of personal data. However, as AI systems become more complex through the years, there could be a need for more nuanced regulations that specifically address the unique challenges posed by AI.

¹⁰ Mosenia A and Jha NK, 'A Comprehensive Study of Security of Internet-of-Things' (2017) 5 IEEE Transactions on Emerging Topics in Computing 586 <<https://ieeexplore.ieee.org/document/7562568>> accessed 3 January 2024

Thus, discussing AI adoption and regulation helps to prepare the workforce for the future and fosters public understanding. It is an opportunity to develop educational and training programs that equip Filipinos with the skills needed to thrive in an AI-driven world and to build public trust in AI technologies by ensuring that they are used responsibly. It is an opportunity to set a clear vision for the future, ensure that AI serves the public interest, and position the Philippines as a knowledgeable and innovative player in the global AI landscape.

Where is artificial intelligence in the Philippines?

To further deepen the discussion, it is essential to recognize the increasing sophistication of AI systems, which are now increasingly capable of performing tasks that were once thought to require human intelligence. This transformative potential of AI calls for a thorough examination of the macroeconomic factors that should be considered when evaluating its impact on various industries.

At the forefront of these concerns is the influence of AI on the labor market and employment rates. In the Philippines, a significant portion of the economy is labor-dependent, and the automation capabilities of AI could potentially lead to job displacement. Conversely, AI also offers the prospect of job creation in high-tech industries, which requires a deliberate approach to education and vocational training to counterbalance the risks of unemployment and underemployment.¹¹ Furthermore, AI's capacity to markedly enhance productivity in various industries cannot be overstated. In the agricultural sector, AI-driven precision farming can refine resource utilization and increase crop yields, specifically rice, thus boosting the sector's productivity and efficiency.¹² Similarly, in manufacturing, AI can streamline production processes, reducing costs and enhancing the competitiveness of Philippine-made products.

Likewise, the adoption and regulation of AI are likely to influence investment patterns in the Philippines. As the country embraces digital transformation, it can attract domestic and foreign direct investment (FDI) in high-tech industries, fostering economic growth and technological advancement.¹³ The current administration's "Build Better More" infrastructure

¹¹ Asian Development Bank, '2018 ANNUAL REPORT: Working Together for a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific Working Together for a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific' (2018) <<https://www.adb.org/sites/default/files/institutional-document/496016/adb-annual-report-2018.pdf>>

¹² Tallada JG, 'Precision Agriculture for Rice Production in the Philippines' (*FFTC Agricultural Policy Platform (FFTC-AP)*)14 August 2019) <<https://ap.ffc.org.tw/article/1416>> accessed 27 December 2023

¹³ Romero A, 'Marcos to Investors: Philippines Ready for AI' (*Philstar*)16 November 2023) <<https://www.philstar.com/headlines/2023/11/17/2312067/marcos-investors-philippines-ready-ai>> accessed 27 December 2023

program further supports this by enhancing connectivity and facilitating the integration of AI to boost the skills of workers.

Therefore, from a fiscal perspective, AI presents a dual-edged sword. On one side, it has the potential to expand the tax base through the emergence of new industries. On the other side, it may diminish tax revenues from sectors and jobs that are susceptible to automation. Such dynamics necessitate careful consideration by policymakers in forecasting future revenue streams and public expenditures. Moreover, AI's influence on productivity and costs may have significant implications for monetary policy and inflation. Increased efficiency could lead to lower prices, while the transition to an AI-driven economy may require considerable capital investment, potentially exerting inflationary pressures.

In light of these considerations, we can say that the integration of AI in the Philippines presents a complex array of macroeconomic factors that must be carefully considered, ranging from labor market transitions to productivity enhancements, investment incentives, fiscal repercussions, and monetary policy considerations. Hence, stakeholders must engage in a proactive dialogue, crafting policies that leverage AI's potential while addressing its challenges. By doing so, the Philippines can ensure that it capitalizes on the opportunities presented by AI, fostering a resilient and dynamic economy. This leads us to ponder the critical question: **where do we currently stand in the adoption and regulation of AI?**

Although the Philippines has recognized the potential of AI and its importance in driving economic growth and innovation, the country is still in the “early stages” of AI adoption, with limited implementation across industries. The government, private sector, and academic institutions are making efforts to promote AI research, development, and application. Initiatives such as the Philippine AI Roadmap have been introduced to create an enabling environment for the advancement of AI technologies, which will be further discussed in the next sections.

Different sectors have started to slowly adopt and embrace artificial intelligence in their operations. In 2021, the Department of Science and Technology (DOST) began working on several AI research and development projects to utilize the technology in handling complicated number crunching, data, and models.¹⁴ AI has also been instrumental in the government's action to fight against the coronavirus disease, which was observed in how the Department of Health created the KIRA or *Katuwang na Impormasyon para sa Responsableng Aksyon* chatbot using

¹⁴ Arayata MaC, 'Dost Introduces 9 Ai R&D Projects' (*Philippine News Agency*, 9 April 2021) <<https://www.pna.gov.ph/articles/1136226>> accessed 3 January 2024

artificial intelligence. Moreover, the education sector has also embarked on its journey of using AI, with the University of the Philippines (UP) being the frontrunner among the universities. UP crafted the University of the Philippines Principles for Responsible and Trustworthy Artificial Intelligence, which is a set of guidelines that help ensure the continuous development of AI in the country.¹⁵

While the Philippines reaps the benefits of artificial intelligence, the country is also exposed to the dangers of the said technology. The emergence of new technologies that can automate and perform tasks more efficiently may negatively affect certain industries, particularly the BPO industry, wherein some companies have already replaced workers with automated chatbots or voice assistants. Consequently, the Philippine Department of National Defense (DND) expressed their concern about the ability of some AI-based apps to manipulate collected data and use it for harmful acts such as accessing classified information.¹⁶ DND also recognizes the possibility of AI-powered malware and ransomware attacks, posing a huge cybersecurity risk. The burgeoning harms of several AI-powered technologies push the Philippine government to develop guidelines that will ensure responsible AI adoption and use, as well as regulatory frameworks that will help address ethical and security issues related to artificial technology.

As a way of ensuring that the benefits of artificial intelligence are harnessed while also protecting the people and the country from potential risks, the Philippine government, particularly the Department of Trade Industry (DTI), launched the National Artificial Intelligence Roadmap to provide a framework for users and producers of AI while also providing precise metrics for monitoring how the technology is adopted and used.¹⁷ Moreover, several house bills have been filed that are focused on ensuring the innovative yet safe use of AI in the country. One of which is House Bill No. 7396 or the Act Promoting the Development and Regulation of AI in the Philippines, covering the creation of the Artificial Intelligence Development Authority (AIDA) which will be responsible for overseeing the use of AI technologies.¹⁸ Another proposed piece of legislation on AI is House Bill 10457, entitled An Act Establishing a National Strategy for the Development of Artificial Intelligence and Related

¹⁵ Pascual J, 'Ph Schools Adopting AI; up among First in Asia: Group' (*ABS*, 16 November 2023) <<https://news.abs-cbn.com/business/11/16/23/ph-schools-adopting-ai-up-among-first-in-asia-group>> accessed 4 January 2024

¹⁶ Reyes M, 'Philippines Flags AI Risks in Defense, Military Arenas' (*Indo-Pacific Defense Forum*, 14 December 2023) <<https://ipdefenseforum.com/2023/12/philippines-flags-ai-risks-in-defense-military-arenas/>>

¹⁷ Department of Trade and Industry, 'National Artificial Intelligence Strategy for the Philippines' (*Department of Trade and Industry* 21 October 2022) <<https://innovate.dti.gov.ph/resources/roadmaps/artificial-intelligence/>> accessed 11 November 2023

¹⁸ Beltran RH, 'Regulation of Artificial Intelligence in the Philippines' (*V&A Law*) <<https://www.thefirmva.com/updates.do?id=27394>>

Technologies, specifically written to establish the National Centre for Artificial Intelligence Research (NCAIR).

While bills have been written, at present, there are still no mandatory or national standards on AI, as well as laws and regulations that are specific to artificial intelligence. This puts the Philippines behind other countries in terms of regulation of the use and adaptation of AI. Now, it raises one question — *how do other countries regulate AI?*

II. International Legal Landscape

As AI continues to advance, countries around the world are grappling with the challenge of regulating its use. The regulatory landscape is as diverse as the technology itself, with countries adopting various approaches based on their unique economic, social, and political contexts. Some even had different definitions and scopes of what they call artificial intelligence. Governments from the European Union, the United States of America, Canada, China, and Singapore are currently working on passing policies and frameworks regulating AI in their countries.¹⁹ While some countries have begun to implement formal regulations, many are still in the early stages of developing policy frameworks that address the unique challenges posed by AI. These frameworks often serve as precursors to regulation, providing guidelines and principles that shape the responsible use and development of AI technologies. From here, this section explores how these different countries regulate AI, their approaches to the challenges it presents, and the underlying principles guiding these regulations.

The European Union (EU) is often cited as a leader in the realm of digital privacy and AI regulation. The EU's approach is characterized by its emphasis on human rights, privacy, and ethical standards. The General Data Protection Regulation (GDPR), implemented in 2018, set a global benchmark for data protection and privacy, impacting AI systems that process the personal data of EU citizens.²⁰

The EU widens its foundation established by the GDPR through the proposed Artificial Intelligence Act. This act is poised to establish a comprehensive legal framework that governs the deployment and sale of AI, with a keen focus on ensuring the safety, transparency, and

¹⁹ Kohn B and Pieper F-U, 'AI Regulation around the World' (*Taylor Wessing* 9 May 2023) <<https://www.taylorwessing.com/en/interface/2023/ai---are-we-getting-the-balance-between-regulation-and-innovation-right/ai-regulation-around-the-world>> accessed 3 January 2024

²⁰ Voigt P and von dem Bussche A, 'The EU General Data Protection Regulation (GDPR): A Practical Guide' [2017] Springer International Publishing.

accountability of AI systems. Its primary objective is to uphold the seamless operation of the EU single market by establishing uniform standards for AI systems across member states. It also categorizes AI applications based on their associated risk levels, imposing stringent regulatory requirements on those deemed high-risk to safeguard public interests.²¹

On the other hand, the United States of America has adopted a decentralized approach characterized by sector-specific guidelines and policies rather than a singular, sweeping federal law. This is because President Biden has issued an executive order instructing various federal agencies and departments, responsible for a range of areas, to develop standards and regulations governing the use and oversight of AI. This directive is a response to the potential risks associated with AI, particularly its potential exploitation for malicious purposes such as terrorism.²² This method allows for a more tailored regulatory environment where various agencies exercise oversight within their respective areas of expertise. The National Institute of Standards and Technology (NIST), for example, plays a pivotal role in the development of AI standards, ensuring that the technology adheres to benchmarks that foster reliability and trustworthiness.²³ Meanwhile, the Federal Trade Commission (FTC) is tasked with safeguarding consumer interests, particularly in relation to AI-driven products and services, ensuring that consumer rights are protected in this rapidly evolving digital landscape.²⁴

The guiding approach of the U.S. regulatory framework is to nurture an environment that privileges innovation and maintains the country's economic competitiveness in the global technology arena. By advocating for self-regulation and the adoption of voluntary standards, the approach seeks to encourage industry-led solutions that can respond swiftly to the dynamic nature of AI technologies. This strategy is designed to ensure that regulation does not become an

²¹ European Commission, 'Proposal for a Regulation Laying down Harmonised Rules on Artificial Intelligence' (*Shaping Europe's digital future* 21 April 2021)

<<https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence>>

²² Morrison S, 'President Biden's New Plan to Regulate AI' (*Vox*, 31 October 2023)

<<https://www.vox.com/technology/2023/10/31/23939157/biden-ai-executive-order>>

²³ National Institute of Standards and Technology, 'U.S. LEADERSHIP in AI: A Plan for Federal Engagement in Developing Technical Standards and Related Tools' (2019)

<https://www.nist.gov/system/files/documents/2019/08/10/ai_standards_fedengagement_plan_9aug2019.pdf>

²⁴ Smith A, 'Using Artificial Intelligence and Algorithms' (*Federal Trade Commission* 8 April 2020)

<<https://www.ftc.gov/business-guidance/blog/2020/04/using-artificial-intelligence-and-algorithms>>

impediment to technological progress but rather supports the development of AI in a manner that is both responsible and conducive to economic growth.

Concurrently, Canada's approach to AI regulation is characterized by a collaborative effort that includes both the public and private sectors. The Pan-Canadian Artificial Intelligence Strategy, launched in 2017, seeks to position Canada as a global leader in AI research and innovation, with a strong emphasis on the ethical development of AI and active public involvement.²⁵ Ethical considerations are further reinforced by the Montreal Declaration for the Responsible Development of Artificial Intelligence, which advocates for principles such as well-being, personal autonomy, and democratic participation.²⁶ This is further perpetuated by Bill C-27 introduced by the Canadian government in June 2022, known as the Digital Charter Implementation Act 2022, which includes the Artificial Intelligence and Data Act (AIDA). This pioneering legislation aims to regulate AI systems involved in international and interprovincial trade, mandating measures to mitigate the risk of harm and bias. AIDA calls for public reporting and grants the Minister authority to demand records concerning AI systems, while also banning practices that could cause significant harm to individuals or their interests.

Meanwhile, China's approach to AI regulation is closely aligned with its national strategy of AI dominance. There are already two existing regulations: the "Provisions on the Management of Algorithmic Recommendations in Internet Information Service" and the "Provisions on the Administration of Deep Synthesis Internet Information Services." The former focuses on regulating algorithmic recommendations, while the latter focuses on regulating synthetically created images, videos, etc. These regulations are a response from the Communist Party of China to better manage information dissemination in the country.²⁷ Bubbling up these two existing regulations is the ambition encapsulated in the "New Generation Artificial Intelligence Development Plan," which sets a bold target for China to ascend to the forefront of AI innovation by the year 2030.²⁸ As the regulatory landscape continues to mature, there is a clear

²⁵ 'Pan-Canadian AI Strategy' (CIFAR, 15 December 2023) <<https://www.cifar.ca/ai/pan-canadian-artificial-intelligence-strategy>>

²⁶ Université de Montréal (*Montreal Declaration for a Responsible Development of Artificial Intelligence - La recherche - Université de Montréal*) <<https://recherche.umontreal.ca/english/strategic-initiatives/montreal-declaration-for-a-responsible-ai/>>

²⁷ Sheehan, M, 'China's AI Regulations and How They Get Made - Carnegie Endowment For ...' (*Carnegie Endowment For International Peace*, 10 July 2023)

<<https://carnegieendowment.org/2023/07/10/china-s-ai-regulations-and-how-they-get-made-pub-90117>> accessed 3 January 2024

²⁸ Full Translation: China's "New Generation Artificial Intelligence Development Plan" (2017) - DigiChina' (*DigiChina* October 2021) <<https://digichina.stanford.edu/work/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/>> accessed 2024

emphasis on fostering the progression of AI, while simultaneously tackling critical issues such as data privacy and cybersecurity.

The distinctive feature of China's regulatory approach is the pronounced role of the government in directing the course of AI advancement. Unlike Western models, which often prioritize individual privacy rights, China's framework places a stronger focus on the collective benefits of AI and state-centric governance of the technology. This method reflects a different set of values and priorities in the balance between rapid technological growth and the protection of personal data.

Moving on to its neighbor in East Asia, Japan regulates AI through a strategic and non-binding policy framework that aligns with its vision for "Society 5.0," a concept aimed at addressing societal challenges such as an aging population through innovative technologies. The government's Social Principles of Human-Centric AI, established in March 2019, set out seven guiding principles for AI's societal integration, focusing on human-centricity, education, privacy, safety, fair competition, fairness, accountability, transparency, and innovation. Further detailed in the AI Utilization Guidelines and the Governance Guidelines for Implementation of AI Principles, these documents provide a reference for AI developers and companies to formulate their own guidelines, encouraging responsible AI development and use. Although not legally binding, these principles and guidelines reflect Japan's commitment to inclusive growth, sustainable development, and societal well-being, echoing the Organization for Economic Cooperation and Development (OECD) AI Principles.²⁹

In the case of Southeast Asia, countries such as Singapore, Malaysia, and Thailand among others have no existing laws or regulations specific to AI use and adaptation, with most of the governments focusing on creating a clear set of frameworks to guide people on how to practice ethical use of AI. As an example, in Singapore, the Personal Data Protection Commission released the Model AI Governance Framework containing detailed information on how private sector organizations can adhere to the ethical and governance issues related to the use of AI.³⁰ The Singaporean Government also released the updated National AI Strategy (NAIS) 2.0, which discusses how there is a need to understand AI as something more than just an

²⁹ Kohn B and Pieper F-U, 'AI Regulation around the World' (*Taylor Wessing*, 1 June 2023) <<https://www.taylorwessing.com/en/interface/2023/ai---are-we-getting-the-balance-between-regulation-and-innovation-right/ai-regulation-around-the-world>> accessed 4 January 2024

³⁰ 'PDPC: Singapore's Approach to AI Governance' (*Personal Data Protection Commission*) <<https://www.pdpc.gov.sg/Help-and-Resources/2020/01/Model-AI-Governance-Framework>>

accessory but something that should be properly utilized for the development of their economy.³¹ Amidst these frameworks and strategies, Singapore is still not traversing the path to regulation of AI as they recognize the need to first learn how such technology is and can be used before coming up with a set of regulations.

In summary, the frameworks to govern AI across the world vary significantly, with each country adopting an approach that aligns with its values, priorities, and objectives. The EU's focus on fundamental rights, the United States's drive for innovation, Canada's emphasis on ethical development, China's strategic ambitions, and Japan's combat its societal challenges and focus on human-centric principles represent the diverse ways in which AI is governed.

It is also noteworthy that as formal regulations specifically tailored to AI are in the nascent stages of development, countries are proactively crafting policies that serve to lay the groundwork for future regulatory frameworks as most of the countries have been doing from above. These policies, which are often the forerunners to more binding regulations, are essential in establishing early norms and standards for the safe, transparent, and accountable development and deployment of AI technologies. This approach allows countries to foster a proactive culture of ethical AI development, laying the groundwork for future regulations that are informed by practical experience and a deeper understanding of AI's societal impact. As such, these policy frameworks are invaluable for guiding the AI realm in the short term as it progresses, ensuring that AI advances in a manner that aligns with societal values and public interest until more formal regulatory mechanisms can be put in place.

From here, as AI continues to permeate every aspect of society, the need for thoughtful and effective regulation becomes increasingly important. While there is no one-size-fits-all solution, the common underlying principles of safety, transparency, and accountability are crucial in guiding the responsible development and deployment of AI technologies. As countries continue to learn from each other's experiences and refine their regulatory frameworks, international collaboration will be key to addressing the global challenges posed by AI.

As major global players and neighboring countries actively engage in the creation of AI regulatory frameworks, it becomes increasingly imperative for the Philippines to consider formulating its own set of AI guidelines and legislation. By drawing on the experiences and

³¹ 'National AI Strategy' (*Smart Nation Singapore*)

<<https://www.smartnation.gov.sg/nais/#:~:text=Goals%20of%20NAIS%202.0&text=Singapore%20will%20raise%20up%20individuals,in%20an%20AI%20Enabled%20future>>

principles laid out by other countries, the Philippines can tailor an AI regulatory model that aligns with its unique cultural, economic, and sociopolitical landscape. However, the critical question still arises: **Should the Philippines adapt and initiate new regulations for AI?**

III. Adopting AI Regulation in the Philippines?

The readiness of the Philippines to adapt or initiate new regulations for AI is met with different challenges in political, economic, technological, and social aspects.

The pursuit of economic success and greater profits has fueled digital innovation, employing traditional methods of capitalist economics. It emphasizes the advantages of capitalism for companies investing in AI, using terms like innovation, flexibility, and adaptability in a positive light. However, beneath these sophisticated expressions lie basic economic mechanisms. Companies invest in AI with the expectation of cutting costs, particularly in labor and transactions, optimizing production processes, boosting productivity, efficiently managing the workforce, enhancing customer knowledge, and strategically aiming for monopoly positions. Advocates of capitalism see AI as a means to diminish the labor share of income, considering it the core technology for platforms and the embodiment of new business models. In their view, AI heralds a more agile and productive iteration of the capitalist system.³²

In addition, a notable aspect shaping the trajectory of AI in our current landscape is the unmistakable influence of nationalism. Dating back to the 1980s, the United States has driven AI innovation significantly through military endeavors. In recent times, the global quest for geopolitical dominance has prompted major players like China to heavily invest in AI research. The geopolitical dimension intertwines directly with the economic one, as a collaboration between corporate and military interests fuels AI development. Economic competition becomes a facet of the larger struggle for geopolitical hegemony, where military supremacy becomes a safeguard for economic prosperity against rival nations.

Countries have recognized AI's potential to transform the world.³³ As a result, over 60 countries have released national AI strategies in the last five years, with Canada leading the way

³² Deranty J and Corbin TA, "Artificial Intelligence and Work: A Critical Review of Recent Research from the Social Sciences" [2022] AI & SOCIETY <<https://doi.org/10.1007/s00146-022-01496-x>>

³³ Samar, Fatima, and others, 'National Strategic Artificial Intelligence Plans: A Multi-Dimensional Analysis' (Economic Analysis and Policy, 24 July 2020) <<https://www.sciencedirect.com/science/article/abs/pii/S0313592620304021?via%3Dihub>>

in 2017.³⁴ However, it shows that over 70% of the countries that have implemented national AI strategies are developed countries.³⁵

Developed and developing countries differ in their approaches to national AI strategies. Because of their sophisticated economies and robust technological infrastructures, developed countries are focusing on using AI to maintain a competitive edge and spur economic growth. They are leading the way in both weak and strong AI. Under weak AI, they use specialized systems for real-world applications in a variety of industries, such as finance, healthcare, and transportation, which increases productivity and generates profits. Infrastructure, funding, and access to top talent are all critical research factors for strong AI because they encourage innovation. To maintain their position as AI leaders, these countries prioritize developing moral AI frameworks, investing in workforce development and education, and encouraging international cooperation. Their commitment to AI innovation positions them at the forefront of technology, influencing the future direction of AI-related applications and industries.³⁶

In contrast, developing nations are negotiating the AI landscape with varying degrees of success in weak AI and strong AI. When it comes to weak AI applications, they typically rely on low-cost fixes, such as chatbots or data analytics, to address regional issues such as healthcare access and agricultural optimization. However, a lack of resources prevents their widespread use. Strong AI remains a challenging goal due to insufficient funding and research infrastructure. Developing countries prioritize international cooperation, local talent development, and capacity building in order to close the AI technology gap. Their commitment to AI research is an important first step toward realizing future socioeconomic benefits, even if progress is slow.³⁷ Given that developing nations rely on technologies developed in developed countries, the disparity between developed and developing countries is to be expected.³⁸ Furthermore, developing countries lack familiarity with the various fields in which artificial intelligence can

³⁴ Vats, A., Natarajan, N. and Events (2022) G20.ai: National Strategies, Global Ambitions, Policy Commons. <<https://policycommons.net/artifacts/2484710/g20ai/3507151/>>

³⁵ 50 National AI Strategies - The 2020 AI Strategy Landscape (no date) HolonIQ. Global Impact Intelligence. Available at: <https://www.holoniq.com/notes/50-national-ai-strategies-the-2020-ai-strategy-landscape>.

³⁶ Demaidi, M.N. (2023) Artificial Intelligence National Strategy in a Developing Country - AI & Society, SpringerLink. Available at: <https://link.springer.com/article/10.1007/s00146-023-01779-x>. 50 National AI Strategies - The 2020 AI Strategy Landscape (no date) HolonIQ. Global Impact Intelligence. <<https://www.holoniq.com/notes/50-national-ai-strategies-the-2020-ai-strategy-landscape>>

³⁷ Demaidi, M.N. (2023) Artificial Intelligence National Strategy in a Developing Country - AI & Society, SpringerLink. Available at: <https://link.springer.com/article/10.1007/s00146-023-01779-x>. 50 National AI Strategies - The 2020 AI Strategy Landscape (no date) HolonIQ. Global Impact Intelligence. <<https://www.holoniq.com/notes/50-national-ai-strategies-the-2020-ai-strategy-landscape>>

³⁸ Monasterio Astobiza, A. et al. (2022) Ethical governance of AI in the Global South: A human rights approach to responsible use of ai, MDPI. <<https://www.mdpi.com/2504-3900/81/1/136>>

be applied. As a result, the gap between developed and developing countries in terms of AI technology development grows.³⁹

Since the Philippines is a third-world country or a developing country per se, it is challenging to regulate AI given that there are still other sectors that the government must focus on. Regulating AI requires a huge amount of funding. In line with the current political challenges faced in the country, there have been challenges in the proper allocation of resources, given the limited financial resources that we have. As of the moment, limitations exist in the adoption, implementation planning, and evaluation components of AI regulation.

In the proposed budget for 2024, the priority sectors include education, public works, health, interior and local government, defense, transportation, social welfare, agriculture, judiciary, and labor and employment. If we look more closely at the spending priorities, the focus of the administration is vested in food security, lower costs for transport, logistics, and energy, and improvement in health, education, social protection, fiscal management, and bureaucracy.⁴⁰

Evident in the allocation of resources is the urgent need to address issues concerning food, health, education, energy, fiscal, and bureaucratic sectors. However, as it appears, AI is not one of the primary foci this year. Moreover, the Philippine government's current capacity and knowledge may be insufficient to handle the rate at which AI is driving change. The first few decades of the digital platform era have already outpaced the regulatory statutes and structures that the government currently has access to, and there is still a lack of concrete development for AI to flourish in the country, given that, until now, internet connectivity from all around the country is still an issue.⁴¹ It is a conundrum since AI uses networks to access large amounts of data. While some AI can work offline, designed to do menial tasks, the network is an essential part of supporting the application of AI.

Additionally, the country has yet to explore and implement the full potential of artificial intelligence. The Philippines is at the bottom rank of economies in Asia and the Pacific when it comes to progress in automation.⁴² This is alongside the Philippines lagging behind other countries in terms of AI readiness ranking, which provides an index of measuring the readiness

³⁹Ai programming by children using snap! block programming in a Developing Country. <<https://ceur-ws.org/Vol-2193/paper1.pdf>>

⁴⁰"Briefer on the 2024 Proposed National Budget" (Department of Budget and Management)

<<https://www.dbm.gov.ph/wp-content/uploads/Our%20Budget/2024/2024-Budget-at-a-Glance-Proposed.pdf>>

⁴¹ Jang S, "The Networking Imperative for AI Applications" (Networking, June 9, 2023)

<<https://www.techtarget.com/searchnetworking/post/The-networking-imperative-for-AI-applications#:~:text=Networking%20is%20vital%20to%20support,can%20improve%20efficiency%20and%20scalability.>>>

⁴² Rosales E, 'Philippines Trails Regional Peers on AI Adoption – Study' (*PhilStar*, 29 July 2023)

<<https://www.philstar.com/business/2023/07/29/2284538/philippines-trails-regional-peers-ai-adoption-study>>

of businesses and governments in a specific economy to utilize and adopt AI fully. The country scored 35.7 out of 100, putting it at the bottom rank out of 12 countries in the 2023 Asia-Pacific AI Readiness Index.⁴³

The slow adoption of AI is caused by several barriers and constraints, which could vary from cultural barriers to technological barriers.⁴⁴ The "more is more" approach of AI researchers has yielded impressive advancements, but it has come at a significant cost. Companies have tirelessly harvested individuals' faces, voices, and behaviors to boost their financial gains. Additionally, models created by aggregating data from entire populations have marginalized minority communities, subjecting them disproportionately to the impacts of the technology. Over time, an increasing number of experts have contended that these impacts mirror the patterns of colonial history. According to their perspective, the global development of AI is impoverishing communities and nations that lack a voice in its evolution—these are the same communities and nations that were already disadvantaged by former colonial empires.⁴⁵

Furthermore, one of the major constraints of a country fully adopting a certain technology is the fear it brings to people, something that is undeniably present in the Philippines. This fear is commonly caused by the increasing possibility of workers losing their jobs due to the ability of AI to perform certain tasks. In the Ipsos Global Advisor 2024 Predictions Survey, 73% of Filipino respondents believe that the continuous increase in the adaptation of AI in the country can lead to Filipinos losing their jobs, with a percentage comparably higher than that of the global average of 64%.⁴⁶ This is also on top of 64% of Filipino respondents who answered yes when asked whether they think their data could be leaked on the internet.

In connection to this, a survey conducted on Filipinos regarding their trust in AI resulted in three out of five respondents saying that they are wary of AI, and expressing cybersecurity concerns.⁴⁷ This demonstrates that many Filipinos have limited social acceptance and are apprehensive about potential exposure to danger. Among the worries voiced by Filipinos is job

⁴³ 'Philippines Lags in 2023 Asia-Pacific Ai Readiness Ranking' (*BusinessWorld*, 2 November 2023)
<<https://www.bworldonline.com/infographics/2023/11/02/554972/philippines-lags-in-2023-asia-pacific-ai-readiness-ranking/>>

⁴⁴ R. S. Concepcion, R. A. R. Bedruz, A. B. Culaba, E. P. Dadios and A. R. A. R. Pascua, 'The Technology Adoption and Governance of Artificial Intelligence in the Philippines,' (2019 IEEE 11th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management, 2019)

⁴⁵ Hao K, "A New Vision of Artificial Intelligence for the People" MIT Technology Review (May 11, 2022)
<<https://www.technologyreview.com/2022/04/22/1050394/artificial-intelligence-for-the-people/>>

⁴⁶ Antivola, Miguel Hanz. "Filipinos Expect Data Leaks, Job Losses from Ai This Year." *BusinessWorld Online*, 4 Jan. 2024, www.bworldonline.com/technology/2024/01/04/566748/filipinos-expect-data-leaks-job-losses-from-ai-this-year/.

⁴⁷ Royeca ME, 'Trust in Artificial Intelligence' (KPMG10 October 2023)

<[16](https://kpmg.com/ph/en/home/insights/2023/10/trust-in-artificial-intelligence.html#:~:text=Half%20of%20respondents%20feel%20they,to%20know%20more%20about%20AI.></p></div><div data-bbox=)

displacement, since AI is now doing duties traditionally undertaken by human workers. This concern originates from the knowledge that AI may result in unemployment, driving people to be wary of the widespread implementation of AI in numerous industries. With the presence of these barriers, constraints, and fears, there is a pressing need to first ensure and educate the Filipino people regarding artificial intelligence, and how the government is taking the necessary steps to prevent their fears from becoming reality.

Hence, given the condition that the Philippines wallows today, is another regulation the solution? As discussions on AI regulation gain momentum, the Philippines finds itself at a crossroads, where a careful balance must be met to ensure readiness while considering different spheres and factors that affect the country's readiness to take the path towards regulating Artificial Intelligence. In light of the aforementioned challenges posed by political, social, technological, and economic aspects that hinder the immediate implementation of a comprehensive AI regulation as well as following suit the actions already taken by countries, the researchers offer recommendations as to how the AI landscape in the Philippines can be governed by the regulatory bodies, the government, and various institutions to ensure that the harmful effects do not outweigh the benefits.

Strengthen existing legislation

Instead of crafting and establishing new laws intended to regulate artificial intelligence in the country, this paper recommends that existing laws in the Philippines must have a stronger implementation and must be revisited to assess how such laws can cater to the up-and-rising adaptation of AI in the country. New regulations should be made only if AI brings new challenges that cannot be addressed by existing laws and regulations in the countries, among other factors to be considered.⁴⁸ The Philippines lacks a content-specific law addressing artificial intelligence (AI). However, because artificial intelligence (AI) works with data sets and personal information, it may be subject to laws and regulations that include both specific laws addressing specific issues, such as data privacy and intellectual property, as well as general laws such as civil law principles.⁴⁹

⁴⁸ Mahmud AH, 'Ai in Southeast Asia: As Rules Are Drafted, Workers Share Their Worries and Wishes' (CNA, 1 December 2023) <<https://www.channelnewsasia.com/asia/ai-law-rules-artificial-intelligence-asean-3950446>>

⁴⁹ Artificial Intelligence 2023 Comparisons (no date) Comparisons | Global Practice Guides | Chambers and Partners. <<https://practiceguides.chambers.com/practice-guides/comparison/995/10936/17688-17690-17692-17698-17701-17706-17708-17711-17715-17717-17734-17737-17744-17746-17749-17753-17758-17760>>

With the increasing number of generative Artificial Intelligence (AI) platforms such as ChatGPT and Bard, there is also an increasing number of issues regarding the originality of the output and artwork of such platforms and whether the works are protected by copyright.⁵⁰ To address these concerns, the existing intellectual property code in the country can be revisited to cover the ownership of works produced by AI.

More specifically, the intellectual property code, or Republic Act No. 8293, protects and preserves scientists, inventors, artists, and other talented citizens' exclusive rights to their intellectual property and creations, particularly when those benefit the public.⁵¹ It establishes a legal framework for defending the intellectual property rights of businesses that use AI and AI developers, which encourages investment and innovation in AI by providing legal protection for AI works, creations, and trademarks.

Another pressing issue related to artificial intelligence is its potential to collect sensitive and personal information that may be used for reasons unknown to the users. This has been alarming even before the rise of newer and more sophisticated technologies, which is why it can be said that there are already existing laws that specifically ensure that the data collected by applications and systems is safe and will not be used for illegal or malicious activities.

The Data Privacy Act, Republic Act No. 10173, is a law that aims to protect all types of data, including sensitive, private, and personal data. This policy is intended to apply to both natural and legal entities that handle personal information.⁵² Instead of crafting new regulations that are specifically for ensuring that artificial intelligence will not use the personal data of users for harmful purposes, the existing Data Privacy Act can be strengthened or extended to cover the realm of AI.

Republic Act No. 7394 also known as the "Philippine Consumer Act" was enacted to protect customers from unscrupulous, deceptive, and unethical sales practices, as well as threats to their health and safety.⁵³ In the context of AI, it provides a framework for protecting clients from unfair or deceptive business practices. It contributes to the fair treatment of customers by AI-powered businesses, as well as the transparency, dependability, and safety of AI systems.

⁵⁰ Siao JP, 'Copyright & AI Generated Work' (*INQUIRER.net*, 22 August 2023)
<<https://business.inquirer.net/417098/copyright-ai-generated-work>>

⁵¹ Joselito Guianan Chan, M.P. (no date) Chanrobles Virtual Law Library, Intellectual Property Code of the Philippines: An Overview.
<<https://chanrobles.com/legal7code.htm>>

⁵² Data Privacy FAQs (no date) Data Privacy Philippines.
<<https://www.privacy.com.ph/learn-data-privacy-compliance/data-privacy-faqs/>>

⁵³ Recto, R.G. (no date) Republic Act No. 7394, Senate of the Philippines.
<<https://legacy.senate.gov.ph/lisdata/25531926!.pdf>>

Companies that use artificial intelligence, for example, may discriminate against specific demographics or price points, or they may make exaggerated or misleading claims about the power of their AI systems.⁵⁴

Implement a Charge System

In navigating the intricate terrain of AI regulation, a thoughtful and adaptive strategy is crucial. Rather than imposing a blanket set of regulations that could stifle innovation, a more refined system that balances incentives and penalties may more effectively promote AI development. The implementation of a charging system, akin to a carbon tax model in environmental policy, could hold companies accountable for the social and ethical implications of their AI applications. Drawing on the concept of carbon taxes used to mitigate climate change, a similar model could be applied to regulate artificial intelligence (AI) by imposing a tax on the negative externalities of AI development and deployment.⁵⁵ This tax would incentivize companies to adopt responsible AI practices and could be structured to reflect the societal costs associated with potential issues like privacy violations, bias, or environmental impacts from data center operations. Revenue from this tax could support AI ethics research or help address any adverse effects of AI. While the idea is inspired by environmental policies, the specific design and implementation would need to be carefully tailored to the unique challenges and impacts of AI technology.

Penalties, whether civil or criminal, should be calibrated to the severity of the infraction, much like the punitive measures under the Data Privacy Act. In this vein, companies that compromise privacy or security through AI could face stringent legal repercussions, including substantial fines or stricter legal sanctions. Such a system would not only penalize malpractice but would also incentivize companies to integrate ethical considerations into their AI development processes from the outset.

⁵⁴ Artificial Intelligence 2023 Comparisons (no date) Comparisons | Global Practice Guides | Chambers and Partners. <<https://practiceguides.chambers.com/practice-guides/comparison/995/10936/17688-17690-17692-17698-17701-17706-17708-17711-17715-17717-17734-17737-17744-17746-17749-17753-17758-17760>>

⁵⁵ Timilsina GR, 'Carbon Taxes' (2022) 60 Journal of Economic Literature 1456 <<https://www.aeaweb.org/articles?id=10.1257/jel.20211560>>

Moreover, as we delve deeper into the granular challenges presented by various AI applications, it becomes clear that an evident regulatory framework is necessary. Regulations must be designed to address specific issues, such as data provenance, algorithmic transparency, and the prevention of bias, while still allowing room for technological advancement.⁵⁶ Given the critical role of data in shaping AI systems, the responsibility is on companies to ensure that the datasets they curate are free from biases and reflect the diversity of the broader population. This accountability is paramount in creating AI systems that are inclusive and equitable.⁵⁷

Deepening our understanding of the challenges embedded in intricate categories within AI underscores the need for a tailored regulatory framework. Rather than imposing generic constraints, we can craft regulations that address specific concerns while fostering an environment conducive to innovation. Recognizing the pivotal role of data in AI development, it becomes imperative to emphasize company accountability. Through a tailored charge system, we can create a balanced ecosystem where the potential of AI can be harnessed for the greater good while maintaining the integrity and trust of those it serves.⁵⁸ Thus, as the architects of datasets shaping AI behavior, companies play a central role in mitigating biases and ensuring inclusivity in AI systems.

Foster Co-Regulation

Navigating the "teenage years" of AI is a period marked by rapid development and a steep learning curve.⁵⁹ During this crucial phase, it becomes imperative to grant the technology the necessary time to mature. This maturation process hinges on the accumulation of diverse datasets, fostering a stage where biases are minimized, and inclusivity takes precedence.

To facilitate this maturation, the concept of co-regulation comes into play. Co-regulation entails the establishment of a governing body composed of industry experts, government regulators, academics, and representatives from civil society. In doing so, emphasis is placed on transparency, accountability, and consistent monitoring and adaptation. Co-regulation is proposed as the most appropriate approach for regulating AI due to the technical and political

⁵⁶ Latonero M, 'Governing Artificial Intelligence: UPHOLDING HUMAN RIGHTS & DIGNITY' (2018) <https://datasociety.net/wp-content/uploads/2018/10/DataSociety_Governing_Artificial_Intelligence_Upholding_Human_Rights.pdf>

⁵⁷ Dignum V, *Responsible Artificial Intelligence : How to Develop and Use AI in a Responsible Way* (Springer 2019)

⁵⁸ Russell S, *HUMAN COMPATIBLE : AI and the Problem of Control*. (Penguin Books 2020)

⁵⁹ Buizon A and others, 'Out of the Matrix: Exploring the Need for AI Regulation'

complexities and the intensity of the threats associated with AI.⁶⁰ It involves the establishment of a legislated framework with key features such as the declaration of requirements, enforcement processes and sanctions, and allocation of powers and responsibilities to regulatory agencies. Finally, it allows for a collaborative approach, ensuring that all relevant stakeholders have a say in the regulatory process and that the interests of the affected public are taken into account.

A pivotal aspect of this multifaceted approach is collaborative efforts across various industries. Such collaboration ensures that regulatory frameworks evolve in sync with the dynamic AI landscape, thereby fostering responsible innovation that prioritizes societal welfare. The collaborative nature of these endeavors acts as a cornerstone in shaping a regulatory environment capable of adapting to the ever-changing challenges posed by AI technology.

Integrate Regulation into the Artificial Intelligence Roadmap

To strengthen the AI roadmap for regulating companies that utilize AI, we need to focus on several key pillars. First, fostering international collaboration is crucial. It emerges as an important force in the realm of artificial intelligence (AI) regulation, serving multiple essential functions. It acts as a key to unlocking AI's potential for sustainable development, ensuring that the benefits and innovations are shared globally.⁶¹ Given the global nature of AI development, establishing collaborative efforts between nations ensures a unified approach. Such cooperative efforts are imperative to manage the risks associated with powerful, general-purpose AI systems that have far-reaching global externalities. This collaboration could involve the sharing of best practices, data on AI-related incidents, and the harmonization of regulatory standards, creating a cohesive global framework. Moreover, international collaboration is instrumental in setting universal standards that can preemptively manage global threats and promote responsible AI practices across borders. In essence, the collective endeavor in AI governance is fundamental to maximizing its positive impact while safeguarding against its potential dangers.

Second, continuous monitoring and adaptation mechanisms must be embedded within the roadmap. AI is a rapidly evolving field, and regulatory frameworks should be dynamic enough to keep pace with technological advancements. Regular assessments and updates can help identify

⁶⁰Clarke R, 'Regulatory Alternatives for AI' (2019) 35 Computer Law & Security Review 398 <Clarke R, 'Regulatory Alternatives for AI' (2019) 35 Computer Law & Security Review 398 >

⁶¹ Ho L and others, 'International Institutions for Advanced AI'

emerging risks, enabling authorities to refine regulations to address novel challenges effectively. Additionally, engaging with industry stakeholders is essential for a well-informed regulatory approach. Collaboration with tech companies, research institutions, and AI developers facilitates a deep understanding of the field's intricacies.⁶² This dialogue ensures that regulations are practical, enforceable, and considerate of industry perspectives, fostering a cooperative environment between regulators and innovators.

Transparency requirements are another critical aspect. Just like other regulations, transparency within regulatory bodies is a cornerstone of effective governance, serving as a channel for open disclosure of information, processes, and decision-making. It not only facilitates stakeholder comprehension and assessment of regulatory actions but also acts as a safeguard against conflicts of interest, ensuring the independence of agency staff by subjecting interactions with industry stakeholders to scrutiny and oversight. Moreover, transparency is instrumental in promoting fairness and impartiality, bolstering public confidence in the regulatory system. It further augments the efficacy of regulatory endeavors by inviting public engagement and feedback, thereby enriching decision-making and enhancing outcomes. Ultimately, a steadfast commitment to transparency helps regulatory agencies mitigate concerns regarding bias or undue influence, reinforcing the legitimacy and credibility of their actions.⁶³

By mandating transparency in AI systems, regulators can ensure that companies using AI technologies disclose their algorithms, decision-making processes, and data sources. This transparency not only enhances accountability but also helps identify and rectify biases in AI systems, contributing to the overall fairness and trustworthiness of AI applications. Moreover, incentivizing research and development that aligns with ethical standards is necessary. Governments can encourage the creation of AI systems that prioritize fairness, inclusivity, and societal well-being by offering grants, tax incentives, or other forms of support to companies fostering responsible AI practices.

All in all, to include such principles, the existing roadmap should encompass legal liability frameworks. This AI roadmap should be a strategic endeavor that offers comprehensive guidance for fostering responsible AI practices within specialized sectors, such as crisis

⁶²Clarke R, 'Regulatory Alternatives for AI' (2019) 35 Computer Law & Security Review 398 <Clarke R, 'Regulatory Alternatives for AI' (2019) 35 Computer Law & Security Review 398 >

⁶³ Miranda S and Caruso R, 'The Importance of Transparency in Regulation' (2023) 2 ASME Open Journal of Engineering <<https://asmedigitalcollection.asme.org/openengineering/article/doi/10.1115/1.4056536/1155948/The-Importance-of-Transparency-in-Regulation>> accessed 4 January 2024

resilience management. As a pivotal resource, it equips a diverse array of stakeholders, including researchers, practitioners, developers, emergency personnel, humanitarian groups, and policymakers, with a robust framework to adeptly handle the intricacies of integrating responsible AI into crisis management. The roadmap emphasizes the pressing need for conscientious research and application of AI, highlighting the imperative to prevent adverse impacts and safeguard at-risk groups during emergencies. In essence, it orchestrates a collaborative effort among stakeholders to ensure that AI technologies are not only developed but also employed with a strong ethical compass, thereby enhancing fair and ethical decision-making in the face of crises.⁶⁴

This also clearly defines the responsibilities of companies in the development and deployment of AI systems and establishes a framework for accountability. This includes specifying when and how companies can be held liable for AI-related incidents and providing a legal basis for recourse in case of ethical breaches or unintended consequences.

Hand in hand with this is the ongoing research and development support for the AI roadmap. By actively encouraging and allocating funds for research on the multifaceted impacts of AI, policymakers can gain a deeper understanding of the technology's implications for society. The insights derived from this research can then be leveraged to inform and refine the roadmap, ensuring they are well-suited to the evolving landscape of AI technologies. Moreover, this proactive approach to research and development support can help anticipate future trends and potential issues, enabling a more agile and preemptive regulatory response.

By fortifying the AI roadmap with these elements—international collaboration, continuous adaptation, industry engagement, transparency requirements, research and development incentives, and legal liability frameworks—we can establish a robust regulatory framework that not only oversees companies that utilize AI but also fosters responsible and ethical AI practices globally. This comprehensive approach aims to strike a balance between innovation and accountability, ensuring that AI technologies contribute positively to society while minimizing potential risks and harms.

⁶⁴ Lee C-C and others, 'Roadmap towards Responsible AI in Crisis Resilience Management' (*Semantic Scholar* 20 July 2022) <<https://www.semanticscholar.org/paper/Roadmap-Towards-Responsible-AI-in-Crisis-Resilience-Lee-Comes/e2e1ddbc4ba93f02d8dfd343a561cf8238adc82e>> accessed 4 January 2024

All in all, this set of comprehensive strategies, augmented by co-regulation, not only sets the foundation for responsible AI but also positions society to reap the benefits of technological advancements without compromising ethical standards.

IV. Conclusion

In conclusion, the Philippines must prioritize the strategic enhancement and stringent enforcement of its current legal framework to effectively navigate the complexities introduced by the rapid advancement of artificial intelligence. This emphasizes that the optimization of resources through well-crafted and effectively implemented laws and regulations can lead to the maximization of social welfare, a goal that every regulation must achieve. Such meticulous attention is especially crucial for AI, a technology whose dynamic and complex nature renders simplistic regulatory approaches ineffective. By revisiting and reinforcing current legislation, the Philippines can create a robust legal structure that is responsive to the intricacies of AI, thereby avoiding the pitfalls of a one-size-fits-all policy that may not align with the country's distinct socioeconomic, political, and technological context. Drawing lessons from international precedents like China and the EU, the Philippines can steer AI development towards a human-centric model while ensuring that regulations are tailored to the unique Filipino context. Opting to refine and fortify current legislation instead of introducing new regulations will lead to a more prudent use of resources and pave the way for a seamless incorporation of AI into the fabric of Philippine society. This approach will not only champion innovation but will also protect our citizens and bolster economic growth.

As we move forward, it is essential to remember that "in the realm of AI, effective regulation is less about crafting new keys and more about refining the locks to which we already hold the keys, ensuring they open doors to progress and prosperity for all."