CESIF
Centre for Social Innovation and Foreign Policy

Artificial Intelligence and Diplomacy: A Case for Nepal's AI Diplomacy

Research Report

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A. Introduction

The proliferation of Artificial Intelligence (AI) has generated an incredible amount of interest and attention not only from the private sector but also from policymakers, leaders, and diplomats, particularly due to its transformative impact on almost all aspects of humanity, both positive and negative. While on the one hand, AI presents an unprecedented strategic opportunity for economic growth, military modernization, and technological advancement, on the other hand, its potential negative consequences on politics, society, and economy have raised alarm among policymakers and leaders around the globe. This conundrum has necessitated cooperation and diplomacy for both development and governance of the rapidly evolving landscape of AI.

For smaller, developing, and global south countries like Nepal, governance of emerging and transformative technological innovation proves particularly challenging because of the dual effect of such technologies. Situated between two regional powers, India and China, both of which have taken remarkable leaps in AI research and development, Nepal sits at a crucial crossroad of having to balance innovation with regulation–in a way that allows the geopolitically sensitive country to maximize its benefits while mitigating its disruptive impacts. This requires collaboration and cooperation with states and non-state actors regionally and globally, through both bilateral and multilateral mechanisms.

Due to the rapidly-evolving landscape of AI and a complex ecosystem of cooperation and regulatory efforts, however, smaller countries with low research and development capabilities in AI find it difficult to keep up with the pace of these developments and strategize timely and efficient policies. While it may be good for technologically advanced countries with enough capital, skills, and resources–along with a robust private sector and big tech companies–to innovate and deploy AI models and tools, smaller countries face the risk of becoming passive recipients if they do not monitor the evolving landscape, analyze their implications for their countries, and identify timely response, particularly through active diplomatic efforts from an early stage.

This research is a sober yet cautious effort in that direction. It aims to generate a foundational understanding about how AI's proliferation is (re)shaping geopolitical rivalries and international relations, what that means for Nepal's national security and foreign policy, and how it may use diplomacy to harvest this technology in the best possible way. For this, the research employed a qualitative approach which combined: an extensive review of academic literature, governments' official documents, non-governmental and multilateral agencies' reports, and media; semi-structured in-depth interviews with key informants, including experts, practitioners, and stakeholders; case-studies of five key international actors–US, China, India, European Union, and Bangladesh; two focus group discussions (FGDs) with stakeholders.

The research highlights the increasingly complex ecosystem of AI development and regulation, roughly polarizing in two blocks led by the US/West and China, respectively. With both the US and China aiming to dominate the field of AI, their strategic rivalry now effectively features a rather new but crucial new dimension: AI and critical technology. Countries around the world

caught in the middle of this geopolitical tussle are "forced to choose between Chinese or American AI systems."[1]

The study also identifies ongoing and emerging international cooperation on AI development and regulation, both bilateral and multilateral, most of which roughly aligns with either the west-led or China-led initiatives. Increasingly, countries have sought to integrate these efforts through the UN and other pre-existing regional, ideological, or thematic blocks, such as G20, G7, BRICS, G7, African Union, and so on. For Nepal that has yet to come up with an AI policy, these initiatives and cooperation work as both opportunity and challenge–opportunity because they offer platforms to raise Nepal's concerns and priorities on global AI regulation and development and challenge because a failure to clearly outline national priorities and accordingly engage in a mature diplomacy will push the country to a bigger geopolitical mess, with severe national security implications.

This research report consists of eight sections overall. The next section discusses the implications of AI on national security and geopolitics, which has necessitated an AI-focused foreign policy and diplomacy for countries across the world. Building on this rationale, the third section provides an overview of the global policy landscape around AI and lessons for Nepal. The fourth section explores the intersection of cybersecurity and AI, looking into some key concepts such as digital sovereignty and human factors in cybersecurity. The fifth section gives a general overview of the international cooperation around AI, highlighting major issues as well as bilateral and multilateral collaboration efforts and platforms. In the sixth section, the research report examines Nepal's AI landscape, and the seventh section explores the key areas of AI cooperation/collaboration for Nepal and major opportunities and challenges. Concluding the research report, the final section offers actionable policy recommendations for Nepal's AI diplomacy.

[1] https://time.com/7204164/china-ai-advances-chips/

B. Artificial Intelligence, National Security, and Geopolitics

As a rapidly evolving field, with an ever-expanding application in different domains of society, politics, and economy, Artificial Intelligence has quickly become a major component of national security and an equally important instrument of foreign policy. The year 2024 was particularly important for AI innovation and advancement, which saw a number of major breakthroughs including generative AI for videos, OpenAI's CLIP model, and AI's advanced application in health research.[2] The Council on Foreign Relations (CFR) listed "Developments in Artificial Intelligence (AI) Continue to Astound—and Concern" as one of the "ten most significant world events in 2024."[3] The 2024 Nobel Peace Prize for Physics went to John J. Hopfield and Geoffrey Hinton "for foundational discoveries and inventions that enable machine learning with artificial neural networks."[4] Similarly, Deepmind scientists Demis Hassabis and John Jumper won the Nobel Peace Prize in Chemistry for predicting proteins' complex structures by developing "an AI model to solve the 50-year-old problem."[5]

Predictions for 2025 have shown further advancement of AI in 2025, with most of them stressing on Agentic AI going mainstream.[6][7][8] The beginning of the year has not disappointed on this front; On 20 January 2024, a Chinese company released the latest version (R1) of DeepSeek, a free AI-powered chatbot, which is "reportedly as powerful as OpenAI's o1 model" but built with a fraction of cost compared to any of the US models.[9] This incredible feat, being termed as AI's "Sputnik Moment," has challenged not only the US dominance over AI but also some foundational assumptions regarding its development.[10] Similarly, in late January of 2025, Chinese company Alibaba released the Quen 2.5 max,[11] and Moonshot AI released the Kimi k1.5,[12][13] AI models that have either outperformed existing ones or compete neck to neck.

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[2] https://finance.yahoo.com/news/top-13-artificial-intelligence-ai-222907215.html?guccounter=1
[3] https://www.cfr.org/article/ten-most-significant-world-events-2024
[4] https://www.nobelprize.org/prizes/physics/2024/summary/
[5] https://www.nobelprize.org/prizes/chemistry/2024/press-release/
[6] https://www.forbes.com/sites/robtoews/2024/12/22/10-ai-predictions-for-2025/
[7] https://www.nhh.no/en/research-centres/digital-innovation-for-growth/dig-news-and-blogs/2025/10-ai-predictions-for-2025/
[8] https://insights.fusemachines.com/2025-ai-predictions-and-trends/
[9] https://www.bbc.com/news/articles/c5yv5976z9po
[10] https://www.theguardian.com/business/2025/jan/27/tech-shares-asia-europe-fall-china-ai-deepseek
[11] https://economictimes.indiatimes.com/tech/artificial-intelligence/alibaba-launches-advanced-ai-model-qwen2-5-max-to-rival-gpt-4/articleshow/117718799.cms?from=mdr
[12] https://indianexpress.com/article/technology/artificial-intelligence/deepseek-r1-kimi-k1-5-model-by-chinese-openai-o1-9804116/
[13] https://github.com/MoonshotAI/Kimi-k1.5

The rapid pace of these developments and their implications on politics, society, and economy have promoted leaders, policymakers, and diplomats alike to view AI as "a profound paradigm shift in our societies," something that is "more than an industrial and technological revolution."[14]

AI's Transformative Impacts on the Society, Economy, and Politics

While assessing its overall impacts on humanity remains a quest beyond the scope of this research, a discussion of AI's implications for geopolitics deserves a brief discussion of how it has been shaping the society, politics, and economy.

Like most other domains, AI's implications for society are both positive and negative. On the positive side, for instance, AI has not only been advancing research in healthcare and medicine,[15] but it has been transforming the entire ecosystem of the healthcare industry by providing the opportunity "to reduce human error, assist medical professionals and staff, and provide patient services 24/7."[16] Advancement in AI has also made it possible to overcome different challenges that have restricted access to quality and equal education opportunities for all. AI-based solutions such as personalized adaptive learning platforms, AI tutors, AI-enabled teacher coaches, AI lesson-planning support programs, and AI assistants can remove some of these bottlenecks.[17] Similarly, despite challenges and crucial considerations, AI has the potential to improve assistive technology,[18] which can provide technological tools and solutions to people with visual, hearing, and mobility impairments as well as cognitive disabilities. On the other hand, however, AI poses critical challenges for society. For instance, AI's adoption, especially in social media recommender algorithms, search engines, and job portals have already raised ethical questions about AI's role and implications for society. The AI/digital divide is another area of concern, which risks further exacerbating the existing socio-economic divide in society—both within a country and among them.

AI's implications for and impacts on the economy has perhaps received the most attention and debates globally, and understandably so. On the positive side, AI, especially generative AI (genAI), has the potential to improve productivity across various industries by automating repetitive and data-intensive tasks to enhance operational efficiency and reduce human errors. For instance, according to multiple reports, genAI has "increased productivity of call center customer support agents, software developers, and mid-level professionals."[19] AI has also been

[14] https://kathmandupost.com/columns/2025/01/31/artificial-intelligence-action-summit
[15] https://health.google/health-research/
[16] https://www.ibm.com/think/insights/ai-healthcare-benefits
[17] https://www.gatesfoundation.org/ideas/articles/ai-tools-education-technology
[18] https://www.who.int/europe/health-topics/assistive-technology#tab=tab_1
[19] https://www.brookings.edu/articles/how-will-ai-affect-productivity/#will-ai-improve-productivity

argued to be "a catalyst for sustainable development" and innovation.[20] This positive development can transform the existing jobs and create new ones.[21] For instance, a World Economic Forum (WEF) report estimates that AI will help create 97 million new jobs.[22] AI-powered risk assessments and analyses are also likely to improve resource allocation and risk management for several industries across the world. Despite these optimistic outlooks, however, AI also presents a risk of economic disruption. For instance, the same WEF report notes that by 2025, automation will displace about 85 million jobs globally. The rapid displacement of largely the low and semi-skilled workers will not only disrupt the labor market but also breed economic inequality. While jobs in advanced economies are more exposed to AI, compared to those in middle and low-income countries, they are also "better equipped for AI adoption."[23] This fundamental fact risks not just a global economic competition but also a further exacerbation of economic disparity among countries.

In politics, too, AI has both positive and negative consequences. First, it has the potential to enhance policymaking and governance through data-driven analyses and recommendations. By adopting AI tools and techniques, governments can streamline their service delivery and performance by integrating the needs and sentiments of the public more effectively. AI chatbots and tools can also provide governments, political parties, and institutions as useful tools to engage with people and deliver improved public services,[24] therefore, helping strengthen democracy and governance. AI can also help enhance national security by providing efficient tools to monitor, detect, and respond to crises such as natural disasters, health emergencies, and cyber attacks. For instance, AI and Machine Learning (ML) have proven to be "a game changer" in "detecting, predicting, and responding to" cybersecurity threats.[25] On the flip side, however, AI also has real negative impacts on democracy and governance. AI-powered surveillance systems "can lead to invasion of privacy."[26] AI tools and techniques can provide malignant actors easy tools and techniques for political manipulation through mis/disinformation and deepfakes.[27] Similarly, algorithmic biases in AI-powered recommender algorithms, such as social media platforms, can also lead to political polarization.[28]

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[20] https://www.orfonline.org/expert-speak/ai-as-a-catalyst-for-sustainable-development
[21] https://www.cnbc.com/2023/08/10/how-ai-can-help-create-jobs-for-humans-not-just-automate-them.html
[22] https://www.weforum.org/publications/the-future-of-jobs-report-2020/in-full/executive-summary/
[23] https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity
[24] https://www.brookings.edu/articles/for-ai-to-make-government-work-better-reduce-risk-and-increase-transparency/
[25] https://kpmg.com/ch/en/insights/cybersecurity-risk/artificial-intelligence-influences.html
[26] https://www.forbes.com/councils/forbestechcouncil/2024/02/02/artificial-intelligence-the-new-eyes-of-surveillance/
[27] https://thesecuritydistillery.org/all-articles/deepfakes-the-new-frontier-in-political-disinformation
[28] https://www.ipsos.com/en/flair-collection/digital-extremism-how-algorithms-feed-politics-polarisation

AI and National Security

AI's tremendous impacts on society, economy, and politics already suggest its crucial implications for national security. However, it is essential to discuss the more direct and visible role of AI in either shaping or influencing national security. First of all, AI-enabled surveillance systems, threat-detection tools, autonomous drones, and resource-optimization softwares provides countries with unprecedented opportunities to strengthen their national security. Similarly, AI tools and techniques provide states both offensive and defensive cybersecurity capabilities, which have equally important implications for national security. AI has also further sophisticated the hybrid warfare techniques,[29] where state and non-state actors use deepfakes, coordinated disinformation campaigns, and psychological operations to erode public trust in institutions, political leaders, and democratic processes–often swaying elections in one way or another.

AI Transforming How Wars Are Fought

On September 1 of 2017, Russian president Vladimir Putin said to a group of young children, "whoever leads in AI will rule the world."[30] Unsurprisingly, in less than a decade, AI is being used quite prominently in the war he waged against Ukraine. The Russia-Ukraine war is the most apparent example of how AI has been transforming the nature of war. Ukraine has been using "millions of hours of footage from drones…to train AI models in combat tactics, spotting targets, and assessing the effectiveness of weapon systems."[31] Ukraine is not the only side using AI to "make decisions on the battlefield;" Russia has also been using AI-enabled drones against Ukraine in the war.[32] Similarly, Israel used AI-powered tools and softwares for targeted military operations and strikes against Hamas in Gaza.[33] Shashank Joshi, Defense Editor at the Economist, stresses that AI-enabled "precision guidance" in the battlefield has brought about "a real shift in the character of warfare."[34] Indeed, AI has been transforming how wars are fought. For instance, AI-powered image recognition allows a military to flag objects and launch sophisticated and highly-accurate attacks.[35] With more advanced AI models integrated into the kill chain, even the decision-making in wars can be automated. An AI-enabled commander receives not just the locations and activities of the opponents but also predictions, inferences,

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[29] Sheikh, H. "AI as a Tool of Hybrid Warfare: Challenges and Responses." *Journal of Information Warfare* 21, no. 2 (2022): 36–49. https://www.jstor.org/stable/27199968.

[30] https://www.axios.com/2017/12/15/putin-whoever-leads-in-ai-will-rule-the-world-1513305253
[31] https://www.reuters.com/technology/ukraine-collects-vast-war-data-trove-train-ai-models-2024-12-20/
[32] https://www.reuters.com/business/aerospace-defense/russia-says-it-is-ramping-up-ai-powered-drone-deployments-ukraine-2024-10-11/
[33] https://time.com/7202584/gaza-ukraine-ai-warfare/
[34] https://youtu.be/geaXM1EwZlg
[35] https://youtu.be/geaXM1EwZlg

value rank for each of the potential targets, and recommendations for action, which makes the entire process much more efficient. Nevertheless, taking away the human component out of the military decision-making at each stage of the overall process has deep ethical considerations–and an immense risk of existential threat in the more extreme case of AI gaining singularity.

AI and Geopolitics

Scholars' work at the intersection of AI and geopolitics vary to a great extent, but a general consensus about AI's transformative impact on a country's important domains–some of which are discussed above–does exist. Given its ability to shape the critical domains of countries' power accumulation and projection, such as economy, politics, and military, AI has increasingly been an important component of an intensifying geopolitical competition, especially between the US and China. As implied above, the ensuing "AI race," is a product of the belief that "the winner could well dominate the coming decades both economically and geopolitically."[36]

The AI race was initially between companies, but it has now evolved into a competition between countries, particularly the US and China.[37] According to a global ranking by Stanford University's Human-Centered Artificial Intelligence (HAI), "the U.S. is the global leader in artificial intelligence, followed by China and the United Kingdom. As the country with "the world's most robust AI ecosystem, it "outperforms every other country by significant margins."[38] However, China has been "closing the gap"[39] and is actually the "global leader in AI research publications and is neck and neck with the United States on generative AI," as evidenced by the innovation of rival and sometimes better models–although China's research publications "have less impact than the US ones, with fewer citations and less private-sector involvement."[40]

DeepSeek: the 'Sputnik Moment' in AI

When a small Chinese AI lab released the R1 model of its AI chatbot DeepSeek in January 2025, the entire world was at awe, especially due to the constraints under which the DeepSeek team had achieved the incredible feat, and at a significantly lower cost than what the American tech giants like OpenAI, Meta, and Google had been pouring into AI infrastructures. DeepSeek R1 is trained with pure reinforcement learning, meaning the model learned itself without humans in the learning process, and uses the "Mixture-of-Experts" (MoE) method for its model architecture, a technique different from most other existing models.[41] By activating "only a small fraction of parameters for any given task," DeepSeek's MoE architecture allows it to significantly reduce

[36] (Bremmer and Kupchan 2018, pp. 8
[37] https://www.youtube.com/watch?v=-KK8SuvwoRQ
[38] https://hai.stanford.edu/news/global-ai-power-rankings-stanford-hai-tool-ranks-36-countries-ai
[39] https://time.com/7204164/china-ai-advances-chips/
[40] https://itif.org/publications/2024/08/26/how-innovative-is-china-in-ai/
[41] https://youtu.be/-KK8SuvwoRQ

computational cost and enhance efficiency.[42] It also uses distillation, a technique that "enables smaller models to inherit the advanced reasoning and language processing capabilities of their larger counterparts, making them more versatile and accessible."[43]

DeepSeek's innovation in AI was so significant that on 27 January 2025, US chip-making company Nvidia lost "$589 billion in market capitalization," which was by far the single greatest one-day value wipeout of any company in history." The DeepSeek-induced Nvidia's stock plunge "shook confidence in US dominance in generative AI,[44] prompting many to term it a "Sputnik Moment" in AI.[45] US officials even warned that it was "a wake-up call for the American AI industry" and that the White House was "working to ensure American AI dominance."[46] On the same account, Professor Mihir A. Desai points to "deeper changes in our financial markets" and argues that "the Nvidia route is only the start" in what he considers a gradual revelation of the "illusion propagated by a mythical and messianic belief in technology and these companies."[47] However, Professor Geoffrey Hinton, popularly known as the 'Godfather of AI,' also contends the relative cost of DeepSeek to that of OpenAI and Gemini "has been exaggerated;" its $5.7 million training cost, he argues, is "just for the final training run," which was probably around $100 million for the American companies–not billions of dollars.[48] Nevertheless, the superpower competition for a dominance over AI is quite apparent, and all countries, irrespective of their relative power and diplomatic capabilities, face a geopolitical landscape increasingly being dominated by AI's transformative impact where they have to respond not only to its challenges and opportunities but also navigate the intricate geopolitics around AI's development and regulation.

AI Diplomacy

Due to the above-mentioned reasons, AI and Diplomacy have come to be increasingly important for each other. Scholars and policymakers have investigated ways to help states devise foreign policy, national security strategies, and diplomatic strategies that address these challenges, opportunities, and role of AI in global affairs. A good amount of literature on AI and diplomacy has focused on the role and importance of a robust foreign policy and diplomacy to prevent malicious usage of AI and "facilitate the dialogues necessary to help all interested parties

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42 https://www.forbes.com/sites/janakirammsv/2025/01/26/all-about-deepseekthe-chinese-ai-startup-challenging-the-us-big-tech/

43 https://www.forbes.com/sites/janakirammsv/2025/01/26/all-about-deepseekthe-chinese-ai-startup-challenging-the-us-big-tech/

44 https://www.forbes.com/sites/dereksaul/2025/01/27/biggest-market-loss-in-history-nvidia-stock-sheds-nearly-600-billion-as-deepseek-shakes-ai-darling/

45 https://www.theguardian.com/business/2025/jan/27/tech-shares-asia-europe-fall-china-ai-deepseek

46 https://www.reuters.com/technology/artificial-intelligence/white-house-evaluates-china-ai-app-deepseeks-affect-national-security-official-2025-01-28/

47 https://www.nytimes.com/2025/01/28/opinion/nvidia-deepseek-ai-valuation-ouroboros.html

48 https://www.youtube.com/watch?v=vxkBE23zDmQ

develop a shared understanding and coordinate efforts to utilize AI for the benefit of humanity."[49] However, AI and diplomacy intertwine in more complex ways, which require exploration for a comprehensive picture of their inter-relationship. As Diplo highlights, AI diplomacy may be categorized broadly into three aspects: "AI's impact on geopolitics;" "AI as a prominent topic on diplomatic agendas;" "using AI as a practical tool in diplomatic activities."[50]

AI's impact on geopolitics has been discussed above, and due to the intensifying geopolitical rivalries around AI, countries around the globe have had to respond to the ever-evolving dynamics through diplomacy, negotiations, and consultations at different levels. Besides, AI in itself presents the countries with immense opportunities and challenges that require international collaboration to address effectively. AI itself has become "a defining element of geopolitical power and an instrument of traditional and public diplomacy, influencing the global balance of power," as highlighted by Konovalova, while making a case for not only "AI for Diplomacy" but also "Diplomacy for AI."[51] As a result, AI has appeared as a prominent topic on diplomatic agendas of a growing number of countries. Some of the key areas of AI diplomacy include governance and norm-setting, AI research and development, cybersecurity and digital sovereignty, data privacy and transfer, and so on. Finally, the practice of diplomacy has seen the incorporation of various technological tools over the centuries–from letters to telegrams to radios, televisions, social media, and now the AI. Researchers have investigated the integration of these tech tools to transform diplomatic engagements and foreign policy practices. For instance, exploring "how digital technologies are changing the field of diplomacy," Frey has argued that emerging technologies "have the potential to automate complex diplomatic negotiations, enhance the security of diplomatic communications, and even redefine the interactions between states and non-state actors."[52]

While the studies focusing on AI's rise, its impacts, and a growing competition among major countries have informed a general sense of direction for AI in diplomacy, and vice-versa, their implications for smaller and global south countries have received little attention. In Nepal's context too, despite AI's growing role, usage, and implications, its relationship with foreign policy and diplomacy remains an unexplored but important area of research for actionable policy recommendations. This research aims to bridge this particular gap; the next sections will explore the evolving global AI policy landscape and international cooperation to identify the opportunities and challenges for Nepal and provide recommendations to address them through AI diplomacy.

[49] Feijoo et al. 2024
[50] https://www.diplomacy.edu/topics/ai-and-diplomacy/
[51] Konovalova 2023, pp. 522-23
[52] Frey 2024, pp. 107

C. Global AI Policy Landscape

The story of AI policy in our world from 2015 to 2024 plays out like a three-act script. In the first act (2015–2019), leaders worldwide banded together to craft "ethical guidelines" that would keep runaway AI ambitions in check. In the second act (2020–2023), policymakers built "regulatory frameworks," determined to channel AI's power while avoiding the dark side of digital disruption. Finally, the third act (2023–2024) saw the official launch of "national AI strategies," heralding a new era of strategic planning and fierce global competition.

Phase One: Ethical Guidelines (2015–2019)

The initial wave of AI excitement sparked a global clamor for responsible development. Nations and international organizations drafted ethical codes and principles, aiming to guard against invasion of privacy, clamp down on bias, and keep machines accountable. Think of it like a grand assembly of countries and organizations, each one committing to uphold integrity in the face of AI's raw potential. These ideals—privacy, transparency, fairness, and accountability—laid the groundwork for the future regulatory approaches.[53]

Phase Two: Regulatory Frameworks (2020–2023)

As AI's lightning-fast progress became impossible to ignore, the world's regions each equipped themselves with unique policy paradigms:

- **European Union (EU)**: The EU charged forward with a regulatory-heavy style, championing privacy and ethics above all else. Their data protection laws became an almost unstoppable force, inspiring global dialogues on how to keep AI's impressive potential from running amok.[54]
- **China**: Rather than craft sweeping regulations, China powered up in specific sectors—healthcare, education, public security—transforming them into world-class AI arenas. This meticulous, targeted onslaught catapulted China to the forefront of the AI race, establishing it as a heavyweight contender.[55]
- **United States**: The U.S. approach felt more like a sprawling battlefield, with policies emerging at both federal and state levels. Some watchers called it chaotic; others saw it as

[53] *Global AI Law and Policy Tracker*. (n.d.). Retrieved 31 January 2025, from https://iapp.org/resources/article/global-ai-legislation-tracker/
[54] Szewczyk, C. B., Cecilia Malmström, Bart. (2023, October 4). *Spotlight Series on Global AI Policy -- Part I: European Union*. Inside Global Tech. https://www.insideglobaltech.com/2023/10/04/spotlight-series-on-global-ai-policy-part-i-european-union/
[55] *AI Index Report 2024 – Artificial Intelligence Index*. (n.d.). Retrieved 31 January 2025, from https://aiindex.stanford.edu/report/

agile. By allowing different states to experiment, the U.S. ended up with a wild patchwork of AI rules—but also a chance for local innovation to flourish.[56]

- **Asia-Pacific (India & Bangladesh, in particular)**: In this region, AI strategies resembled no established patterns, with each country crafting policies according to its own needs. India's advanced digital infrastructure and Bangladesh's rapid digital transition reflected how varied contexts can shape AI's role—and sometimes open up new paths for collaboration.[57]

Phase Three: National AI Strategies (2023–2024)

By the time 2023 rolled around, many governments decided it was time to step up their game and bring forth official, all-encompassing AI strategies. Building on the ethical guidelines and regulations from previous phases, countries started weaving AI into broader plans for economic growth, social development, and national security. Lessons learned from each region's experiments became the building blocks for strategies designed to harness AI's power in a sustainable, forward-thinking way.[58]

Implications for Nepal

Now, picture Nepal standing on a high mountain pass—quite literally, in many ways—looking down at the swirling interplay of global powers. Nepal finds itself wedged between two AI behemoths (China and India), and the choices it makes now will resonate long into its digital future. Here are three crucial considerations:

- **Geopolitical Influences**
  Giant neighbors can either be greatest allies or biggest headaches. As Nepal crafts its AI governance, it must ensure its own policies are not simply overshadowed by China's rapid-fire development or India's ever-evolving digital infrastructure. Nepal's best path forward lies in forging strategic partnerships on its own terms—standing tall while gleaning the best practices from both sides.[59]

- **Regulatory Compatibility**
  The global AI policy scene is chaotic: Europe's laser-focus on privacy, China's sector-based expansions, the U.S.'s patchwork approach. When stepping into this arena, Nepal should aim for a regulatory framework that's flexible enough to align with international standards, yet tailored to local realities. This balancing act means deciding which external frameworks to

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[56] Dori, A. G., Matthew Shapanka, Holly Fechner, Yaron. (2024, December 18). *U.S. AI Policy Expectations in the Trump Administration, GOP Congress, and the States*. Global Policy Watch. https://www.globalpolicywatch.com/2024/12/u-s-ai-policy-expectations-in-the-trump-administration-gop-congress-and-the-states/

[57] *Global AI Law and Policy Tracker*. (n.d.). Retrieved 31 January 2025, from https://iapp.org/resources/article/global-ai-legislation-tracker/

[58] *The Global AI Strategy Landscape*. (n.d.). Retrieved 31 January 2025, from https://www.holoniq.com/notes/the-global-ai-strategy-landscape

[59] *Nepal needs a credible plan to regulate AI*. (n.d.). The Annapurna Express. Retrieved 31 January 2025, from https://annapurna-express.prixa.net/story/49788

adopt outright, which to adapt, and where to carve out a unique stance that safeguards national priorities.[60]

- **Diplomatic Opportunities**
  Amid the hustle and bustle of global AI summits, expert roundtables, and transnational cybersecurity pacts, Nepal can make its voice heard. By tapping into regional alliances and global platforms, Nepal can build valuable partnerships, attract investments, and exchange knowledge with world-leading AI hubs. Steering these conversations can help Nepal not just keep up, but actually shape the policies that will govern AI's future across borders.[61]

A Custom-Fit Approach for Nepal

Emulating another country's AI blueprint is a surefire route to mediocrity—or worse, policy mismatch. Instead, Nepal should channel the global lessons learned, then blend them with its own socio-economic context. Here's the strategy:

- **Regulate Without Smothering Innovation**
  Nepal can design guardrails to handle risks—like privacy breaches and algorithmic bias—while giving start-ups and researchers enough freedom to innovate. Think of it as building a sturdy bridge over a raging river: strong support beams (regulation), but enough freeboard so commerce can still flow.[62]

- **Promote AI-Driven Development**
  In healthcare, education, agriculture—Nepal could harness AI's potential to bolster critical services. If done with care and adequate resources, these initiatives can supercharge sustainable development and significantly improve the everyday lives of Nepal's people.[63]

- **Uphold Ethical Foundations**
  Drawing from the global call for ethical AI, Nepal must ensure accountability, fairness, and respect for local culture. The aim? A self-determined AI policy that keeps foreign interests in check but doesn't stunt growth or collaboration.[64]

Nepal stands at a unique vantage point—capable of drawing wisdom from the world's successes and failures. By forging its own path and leveraging international partnerships, Nepal can ride the AI wave to new heights of innovation and prosperity. The journey will not be simple, but

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[60] *Legal Blueprint for Artificial Intelligence and the Nepali Techonomy*. (n.d.). Retrieved 31 January 2025, from https://nepaleconomicforum.org/legal-blueprint-for-artificial-intelligence-and-the-nepali-techonomy/

[61] *Unveiling the Intricacies of AI Governance in Nepal: Multistakeholder Dialogue on Artificial Intelligence Governance | UNESCO*. (n.d.). Retrieved 31 January 2025, from https://www.unesco.org/en/articles/unveiling-intricacies-ai-governance-nepal-multistakeholder-dialogue-artificial-intelligence

[62] *Legal Blueprint for Artificial Intelligence and the Nepali Techonomy*. (n.d.). Retrieved 31 January 2025, from https://nepaleconomicforum.org/legal-blueprint-for-artificial-intelligence-and-the-nepali-techonomy/

[63] *Key Nepali Stakeholders Provide Recommendations and Directions for Integrating AI in Education in Nepal | UNESCO*. (n.d.). Retrieved 31 January 2025, from https://www.unesco.org/en/articles/key-nepali-stakeholders-provide-recommendations-and-directions-integrating-ai-education-nepal

[64] *Vision and Mission – NAAMII. (n.d.). Retrieved 31 January 2025, from https://www.naamii.org.np/mission/*

with a careful blend of regulatory foresight, ethical grounding, and bold vision, Nepal can script its own AI success story—one that resonates far beyond the Himalayan horizons.

Power Dynamics & Model Adoption

In the geopolitical arena of AI policymaking, China's state-centric system clashes with India's hybrid approach, while the EU's risk-based method and America's market-driven style loom large on the horizon. For Nepal, perched between titans, each of these offers both inspiration and challenge.

- **China**
  China's approach is like an imperial court where AI innovations report directly to the Emperor (a.k.a. the central government). It is fast, it is forceful, and it coordinates resources with military precision. If Nepal wants to unify AI projects across sectors—healthcare, education, disaster management—China's model could offer lessons in galvanizing national efforts and ensuring consistent standards. But the cost? A big administrative and financial burden, plus a risk of stifling independent innovation.[65]
- **India**
  Next door, India's regulatory efforts seem to both seek caution, but also throw it to the wind by blending state oversight with private-sector innovation. From national digital ID initiatives to home-grown AI startups, India has found ways to foster competition and keep government guardrails in place. For Nepal, adopting a similar hybrid stance could mean balancing regulation with letting the creative energies of local innovators run wild. The trick is to ensure that "chaos" does not trump "order."[66]
- **European Union (EU)**
  Meanwhile, the EU marches in with a meticulously layered, risk-based system—envisioned as a shield that adapts depending on the level of AI "threat." From minimal-risk personal assistants to high-risk facial recognition tools, the EU insists that not all AI is created equal. For Nepal's budding regulatory landscape, this tiered framework can help focus resources where they matter most—like medical diagnostics or critical infrastructure—while letting low-stakes applications breathe freely.[67]
- **United States**
  On the far side of the globe, the U.S. brandishes a laissez-faire sword, letting industry cut its own path, with only the occasional steer from the federal or state governments. For a smaller

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[65] *America's AI Strategy: Playing Defense While China Plays to Win | Wilson Center*. (2025, February 3). https://www.wilsoncenter.org/article/americas-ai-strategy-playing-defense-while-china-plays-win

[66] *Envisioning a Global Regime Complex to Govern Artificial Intelligence*. (n.d.). Carnegie Endowment for International Peace. Retrieved 31 January 2025, from https://carnegieendowment.org/research/2024/03/envisioning-a-global-regime-complex-to-govern-artificial-intelligence?lang=en

[67] *The AI Governance Arms Race: From Summit Pageantry to Progress?* (n.d.). Carnegie Endowment for International Peace. Retrieved 31 January 2025, from https://carnegieendowment.org/research/2024/10/the-ai-governance-arms-race-from-summit-pageantry-to-progress?lang=en

nation like Nepal, it might be tempting to adopt elements of this free-market approach—especially to attract foreign investment or spark local startups. Still, a balance must be struck: how much freedom can you allow before you lose control?[68]

Implementation Feasibility

Given Nepal's developing regulatory and institutional capacity, a careful rollout is crucial—like unfolding a scroll one line at a time. Borrowing the EU's tiered risk classification could help Nepal channel its limited resources toward the greatest potential threats. Focus on, say, AI in public services, critical infrastructure, and large-scale data analytics first. From there, gradually refine and expand regulations to cover less sensitive or lower-risk AI domains.[69]

Yet a nod to China's centralized vision might also prove useful for building synergy across different provinces and sectors in Nepal. Coordinating a national AI strategy—whether in disaster management, agriculture, or digital literacy—could spur momentum and keep everyone marching to the same beat. The biggest hurdle? Making sure the government has the muscle, money, and manpower to enforce these rules. Without proper enforcement, even the mightiest policy is just a piece of paper gathering dust.[70]

Strategic Considerations

Nepal's diplomatic dance with major powers—particularly China, India, and the U.S.—will heavily influence how the nation's AI framework takes shape. Rather than choosing sides, Nepal can become a bridge linking these worlds, forging what we might call a "Nepal Model" of AI governance. Here's how:

- **Blend & Adapt**
  Mix elements from China's centralized oversight with India's emphasis on innovation and the EU's risk-based focus. Carefully adapt these features to fit Nepal's socio-economic realities. That might mean robust oversight in healthcare and education—where vulnerable communities need protections—paired with a looser rein in consumer-oriented products and services.[71]
- **Foster Partnerships**
  Nepal's unique position as a Himalayan crossroads could be leveraged for cooperative ventures—joint research labs with India, data-sharing agreements with China, startup

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[68] *China vs US Approaches to AI Governance*. (n.d.). Retrieved 31 January 2025, from https://thediplomat.com/2023/10/china-vs-us-approaches-to-ai-governance/
[69] *The AI Governance Arms Race: From Summit Pageantry to Progress?* (n.d.). Carnegie Endowment for International Peace. Retrieved 31 January 2025, from https://carnegieendowment.org/research/2024/10/the-ai-governance-arms-race-from-summit-pageantry-to-progress?lang=en
[70] *America's AI Strategy: Playing Defense While China Plays to Win | Wilson Center*. (2025, February 3). https://www.wilsoncenter.org/article/americas-ai-strategy-playing-defense-while-china-plays-win
[71] *Legal Blueprint for Artificial Intelligence and the Nepali Techonomy*. (n.d.). Retrieved 31 January 2025, from https://nepaleconomicforum.org/legal-blueprint-for-artificial-intelligence-and-the-nepali-techonomy/

accelerators with American investors. Each partnership can feed into Nepal's AI ecosystem, attracting resources, knowledge, and international recognition.[72]

- **Diplomatic Leverage**
  With global AI summits and multilateral treaties sprouting up, Nepal shouldn't just be an attendee. It should be a **player**—setting agendas, championing ethical guidelines, and driving the conversation on inclusive AI governance. Being proactive opens doors to shape international norms and ensure that the perspectives of smaller developing nations are not drowned out by AI giants.[73]

Stepping Into the Future

By forging its own regulatory path, Nepal can ensure AI development remains aligned with its values: inclusivity, social welfare, and sustainable growth. This "Nepal Model" will not be a mere clone of any existing framework—it will be a custom fusion, refined by local wisdom and guided by the experiences of other nations.

- **Participate in Regional & International Forums**
  Joining AI coalitions, tech alliances, and policy dialogues is Nepal's golden ticket to ride the global AI wave. The more Nepal's voice resonates on these platforms, the better it can shape policies that directly affect its interests.[74]
- **Collaborate for Inclusive Innovation**
  Team up with like-minded nations to tackle common challenges—digital infrastructure, data protection, cybersecurity. This brand of collaboration not only levels up Nepal's own abilities but also helps rewrite the global AI rulebook to favor equitable, people-centric progress.[75]
- **Champion Ethical & Responsible AI**
  Being small does not mean being powerless. Nepal can emerge as a moral compass in the global AI debate, insisting on ethics, fairness, and respect for local cultures. Such leadership can earn Nepal the reputation of a principled mediator—a vital role at a time when AI is still finding its ethical footing.[76]

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[72] *Unveiling the Intricacies of AI Governance in Nepal: Multistakeholder Dialogue on Artificial Intelligence Governance | UNESCO*. (n.d.). Retrieved 31 January 2025, from https://www.unesco.org/en/articles/unveiling-intricacies-ai-governance-nepal-multistakeholder-dialogue-artificial-intelligence

[73] *National AI Summit 2024 Nepal: Key Takeaways*. (n.d.). Apolitical. Retrieved 31 January 2025, from https://apolitical.co/solution-articles/en/national-ai-summit-2024-nepal-key-takeaways-128

[74] Ibid.

[75] *Unveiling the Intricacies of AI Governance in Nepal: Multistakeholder Dialogue on Artificial Intelligence Governance | UNESCO*. (n.d.). Retrieved 31 January 2025, from https://www.unesco.org/en/articles/unveiling-intricacies-ai-governance-nepal-multistakeholder-dialogue-artificial-intelligence

[76] *Legal Blueprint for Artificial Intelligence and the Nepali Techonomy*. (n.d.). Retrieved 31 January 2025, from https://nepaleconomicforum.org/legal-blueprint-for-artificial-intelligence-and-the-nepali-techonomy/

By navigating this complex web of global AI policy approaches, Nepal can carve out its own place. Not only will this keep local AI innovations honest and beneficial, but it could also set a powerful precedent for other developing countries hungry to blaze their own AI trails.

Positioning Strategy

Nepal, geographically and geopolitically, faces three distinct schools of AI approaches in its neighborhood. To the north, China's central-command approach steers AI innovations like a grand empire.[77] To the south, India dances with a deft balancing act between state intervention and private enterprise.[78] And across the horizon in Bangladesh, a fledgling framework is emerging, shaped by shared regional realities.[79] It's as if Nepal has been invited to three different academies of AI governance—each with strengths, limitations, and a hefty price tag. The real question: Which lessons will Nepal choose to weave into its own AI strategy?

Developmental Parallels

For Nepal, Bangladesh represents a particularly relatable ally on the AI journey. Both countries grapple with a similar menu of challenges: fragile infrastructures, finite resources, and the urgent need for AI-driven solutions in agriculture, healthcare, and education. Bangladesh's trials and triumphs offer an invaluable mirror for Nepal:

- **Infrastructure Conundrums**
  Laying down robust digital highways for AI demands stable connectivity, data centers, and a skilled workforce. Bangladesh's ongoing progress—boosting rural internet access, launching pilot AI projects for farming—can provide Nepal with a blueprint (and cautionary tales) on how to roll out digital infrastructure without breaking the bank.[80]
- **Sector-Specific Innovations**
  Bangladesh's experiments in AI-driven healthcare, such as telemedicine platforms in remote regions, or pilot programs for precision agriculture, are packed with lessons on scalability and cultural adaptation. Nepal, with its own rugged terrains and diverse communities, could adapt these breakthroughs rather than reinvent the wheel.[81]

Strategic Options

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[77] *AI Strategies and Policies in China*. (n.d.). Retrieved 31 January 2025, from https://oecd.ai/en/dashboards/countries/China
[78] *India's Advance on AI Regulation*. (n.d.). Carnegie Endowment for International Peace. Retrieved 31 January 2025, from https://carnegieendowment.org/research/2024/11/indias-advance-on-ai-regulation?lang=en
[79] *An Overview of Bangladesh National Artificial Intelligence Policy 2024*. (2024, April 19). The Daily Star. https://www.thedailystar.net/law-our-rights/law-vision/news/overview-bangladesh-national-artificial-intelligence-policy-2024-3590351
[80] *AI: Opportunities and challenges for Bangladesh*. (2023, September 26). The Business Standard. https://www.tbsnews.net/thoughts/ai-opportunities-and-challenges-bangladesh-707470
[81] Wing, L. A. (2024, November 13). AI in Bangladesh's Financial Sector: Opportunities and Challenges. *LightCastle Partners*. https://lightcastlepartners.com/insights/2024/11/ai-finance-bangladesh/

With so many governance styles in the region, Nepal does not have to copy-paste from just one. Instead, it can piece together a hybrid approach—pulling the best threads from each neighbor and even borrowing a flourish from the European Union's risk-based framework. Here's how:

- **Mix & Match Inspiration**

From India: A flexible regulatory stance, public-private alliances, and an openness to R&D that fuels innovation.[82]

From Bangladesh: Targeted sectoral programs and strategies that recognize on-the-ground realities of infrastructure, workforce, and data.[83]

From the EU: A systematic, risk-tiered classification for AI applications, allowing Nepal to zoom in on high-risk sectors (like healthcare and public safety) first.[84]

- **Balancing the Big Powers**
  China's AI domain is undeniably alluring—from advanced research capabilities to large-scale implementation. Engaging with Chinese AI experts, forging bilateral training programs, or piloting projects with Chinese tech firms could swiftly level up Nepal's AI scene. Still, Nepal must keep a careful eye on national interests and avoid over-reliance.[85] Similarly, strengthening AI ties with India and Bangladesh can amplify regional gains—shared data initiatives, collaborative research hubs, joint conferences—while respecting each nation's sovereignty. It is all about alliances without entanglements, a feat worthy of the most skilled diplomat.[86] [87]
- **Practical Governance Frameworks**
  Tweak and adapt, rather than cut-and-paste. Nepal cannot afford to drown in regulations that outpace its capacities. By aligning policy priorities with its current resources, Nepal sets the stage for incremental—but steady—progress. Always make sure you have enough expertise and resources before confronting the next complex AI challenges.

Recommendations

- **Realistic Implementation Pathways**
  Nepal's strategy should be laser-focused on high-priority areas—such as healthcare, agriculture, disaster management—where AI can quickly prove its worth. A phased timeline,

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[82] *India's Advance on AI Regulation*. (n.d.). Carnegie Endowment for International Peace. Retrieved 31 January 2025, from https://carnegieendowment.org/research/2024/11/indias-advance-on-ai-regulation?lang=en

[83] *An Overview of Bangladesh National Artificial Intelligence Policy 2024*. (2024, April 19). The Daily Star. https://www.thedailystar.net/law-our-rights/law-vision/news/overview-bangladesh-national-artificial-intelligence-policy-2024-3590351

[84] Xu, J., Lee, T., & Goggin, G. (2024). AI governance in Asia: Policies, praxis and approaches. *Communication Research and Practice*, *10*(3), 275–287. https://doi.org/10.1080/22041451.2024.2391204

[85] *AI Strategies and Policies in China*. (n.d.). Retrieved 31 January 2025, from https://oecd.ai/en/dashboards/countries/China

[86] *India's Advance on AI Regulation*. (n.d.). Carnegie Endowment for International Peace. Retrieved 31 January 2025, from https://carnegieendowment.org/research/2024/11/indias-advance-on-ai-regulation?lang=en

[87] *An Overview of Bangladesh National Artificial Intelligence Policy 2024*. (2024, April 19). The Daily Star. https://www.thedailystar.net/law-our-rights/law-vision/news/overview-bangladesh-national-artificial-intelligence-policy-2024-3590351

with each milestone matched to Nepal's institutional and resource capabilities, ensures that policy does not outstrip practice.

- **Regional Collaboration**
  Whether through bilateral talks with India or cross-border AI incubators with Bangladesh, Nepal stands to gain major synergy points by pooling resources. Shared success stories can inspire other nations, too—turning the region into a rising star in AI governance for developing countries.
- **Balancing Technological Engagement & Sovereignty**
  Nepal can say yes to foreign AI investments and advanced technologies without sacrificing its independence. It's a tightrope walk, sure—but one that gets easier with transparent legal frameworks, clear data protection rules, and robust local expertise to manage these partnerships.
- **Adapt Global Best Practices**
  Just as the EU's risk-based system classifies AI by potential harm, Nepal can adopt a scaled-down version that suits its context. Higher-risk applications (like biometric surveillance or medical diagnostics) get stricter oversight, while lower-risk areas (like AI chatbots for tourism) remain open for rapid innovation.

Ultimately, Nepal's journey is not about passively following the footsteps of China, India, or even the EU. It is about forging a bespoke governance model that prioritizes the well-being of its people while turning challenges—like infrastructure deficits—into catalysts for creative solutions. By doing so, Nepal can emerge as a proactive force in global AI discussions.
With a careful blend of regional cooperation, innovative adaptation of existing frameworks, and a dash of bold diplomacy, Nepal can harness the transformative power of AI for its own development—while also lighting a path for other nations seeking a balanced, responsible approach to AI governance.

D. AI and Cybersecurity

Navigating Evolving Threats and Vulnerabilities

In an era when **AI-driven cyber attacks** can wreak havoc across international networks faster than ever before, Nepal faces a brand-new security threat and must strive to protect its virtual borders as much as its physical ones. Nepal's growing reliance on the global digital ecosystem leaves it exposed to the cunning tactics of both state-sponsored and non-state cyber warriors.[88]

Nepal's digital networks are unfortified, and the country is surrounded by hostile actors. Nepal must now tighten its defenses with the help of AI—and be prepared to face down an onslaught of sophisticated new hazards.

Cross-Border Vulnerabilities

Nepal's digital domain is like a busy marketplace situated between two giant cities: data flows back and forth, and while this fosters growth, it also invites opportunistic hostile actors.

- **Inconsistent Data Protection Standards**: When data flows across borders—especially where regulations differ—Nepal risks losing control over personal or sensitive information, turning it into a target for hackers.[89]
- **Proxy Battlefield**: State and non-state actors could easily exploit Nepal's **relatively underdeveloped** security infrastructure, using it as a testing ground for advanced AI-driven exploits. Whether it is cross-border espionage or covert infiltration, a single weak point could rupture an entire system.[90]

Resource and Infrastructure Gaps

Nepal's limited resources mean it cannot simply purchase a top-tier security arsenal. That leaves the door open for adversaries deploying AI-enabled infiltration tactics that adapt in real time.

- **AI-Powered Attacks**: Automated social engineering scams, self-evolving malware, next-level phishing campaigns—these are especially effective in countries with low digital literacy such as Nepal.[91]

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[88] *What Are AI-Enabled Cyberattacks? Why They're Increasing, and How to…*. (n.d.). Abnormal. Retrieved 1 February 2025, from https://abnormalsecurity.com/glossary/ai-enabled-cyberattacks

[89] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396

[90] Faruqe, M. Y. (2023, December 19). *Navigating Nepal's digital frontier: Understanding cybersecurity in the digital age, ensuring data safety, and the role of AI*. The Himalayan Times. https://thehimalayantimes.com/opinion/navigating-nepals-digital-frontier-understanding-cybersecurity-in-the-digital-age-ensuring-data-safety-and-the-role-of-ai

[91] *ISACA Now Blog 2024 The Need For AI Powered Cybersecurity to Tackle AI Driven Cyberattacks*. (n.d.). ISACA. Retrieved 1 February 2025, from

- **Foreign AI Dependence**: If Nepal relies heavily on imported AI tech, it runs the risk of letting Trojan horses slip in quietly. Imported tools are black boxes—they can be extremely dangerous if the source code is locked away from Nepal's scrutiny.[92]
- **Cyber Guinea Pig**: Attackers who want to refine their tactics might practice on Nepal, seeking out security chinks that would be quickly patched elsewhere.

Strategic Imperatives

A robust cybersecurity strategy is not just about blocking attacks—it is about forging a **digital fortress** that can weather evolving storms, powered by AI that spots threats before they breach the walls. Nepal's approach should revolve around four key pillars:

- **Cross-Border Data Protection**
  Seal deals and set clear frameworks with neighbors so that data crossing those frontiers stays under watchful eyes. Shared standards and mutual agreements can help ensure that foreign data highways are not letting in an army of cyber threats.[93]
- **Domestic AI Security Expertise**
  Establish **training camps** for local cyber talents—fund academic programs, hackathons, and R&D labs so that Nepali coders and researchers can stand their ground against the best of them. Build an elite guard that blends AI expertise with real-world security know-how.[94]
- **Critical Infrastructure Defense**
  When AI threats zero in on power grids, healthcare systems, and government networks, the stakes are no longer theoretical. Make sure these life-blood facilities have extra layers of digital armor, including intrusion detection powered by machine learning and frequent "fire drills" (cyber exercises) to test readiness.[95]
- **Guarding Data Sovereignty**
  As Nepal looks outward for collaborations, it needs to defend its autonomy. Putting ironclad policies in place—ones that require local data storage or joint oversight of foreign-provided AI solutions—can protect national interests from overshadowing influences.[96]

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https://www.isaca.org/resources/news-and-trends/isaca-now-blog/2024/the-need-for-ai-powered-cybersecurity-to-tackle-ai-driven-cyberattacks

[92] Faruqe, M. Y. (2023, December 19). *Navigating Nepal's digital frontier: Understanding cybersecurity in the digital age, ensuring data safety, and the role of AI*. The Himalayan Times. https://thehimalayantimes.com/opinion/navigating-nepals-digital-frontier-understanding-cybersecurity-in-the-digital-age-ensuring-data-safety-and-the-role-of-ai

[93] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396

[94] Konrad, A. (n.d.). *This AI Startup In Nepal Is Helping Figma And OpenAI Close Their Biggest Sales*. Forbes. Retrieved 1 February 2025, from https://www.forbes.com/sites/alexkonrad/2025/01/29/this-ai-startup-in-nepal-is-helping-figma-and-openai-close-their-biggest-sales/

[95] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396

[96] Faruqe, M. Y. (2023, December 19). *Navigating Nepal's digital frontier: Understanding cybersecurity in the digital age, ensuring data safety, and the role of AI*. The Himalayan Times.

Recommendations

Immediate Priorities

- **Develop Baseline AI-Powered Defenses**
  Roll out early-warning systems and real-time threat hunters—automated AI tools that can spot infiltration attempts. Even a basic level of AI-driven detection raises the bar, thwarting routine and advanced threats alike.[97]

- **Strengthen Cross-Border Data Protection**
  Collaborate with India, China, Bangladesh, and beyond to craft shared data standards. Promote consistent regulations so malicious traffic can't simply hop from one border to the next.[98]

- **Invest in Homegrown AI Security Expertise**
  Fund scholarships, create specialized cybersecurity programs, and partner with research labs. Fostering a generation of tech-savvy defenders gives Nepal the flexibility to adapt strategies without always relying on external vendors.[99]

- **Harden Critical Infrastructure**
  Run targeted audits on power grids, financial systems, and government IT networks. Patch every known vulnerability and prepare for zero-day attacks with advanced threat simulations.[100]

Long-Term Strategy

- **Build a Resilient Cyber Framework**
  Codify a national cybersecurity policy tailored to Nepal's risk environment, focusing on adaptability. Establish clear lines of authority for threat response so multiple agencies do not trip over each other when crisis strikes.[101]

- **Strategic Partnerships, Not Dependence**
  Forge alliances that exchange threat intel and best practices but keep close control over

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https://thehimalayantimes.com/opinion/navigating-nepals-digital-frontier-understanding-cybersecurity-in-the-digital-age-ensuring-data-safety-and-the-role-of-ai

[97] *AI and Cybersecurity: A New Era*. (n.d.). Morgan Stanley. Retrieved 1 February 2025, from https://www.morganstanley.com/articles/ai-cybersecurity-new-era

[98] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396

[99] Konrad, A. (n.d.). *This AI Startup In Nepal Is Helping Figma And OpenAI Close Their Biggest Sales*. Forbes. Retrieved 1 February 2025, from https://www.forbes.com/sites/alexkonrad/2025/01/29/this-ai-startup-in-nepal-is-helping-figma-and-openai-close-their-biggest-sales/

[100] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396

[101] Faruqe, M. Y. (2023, December 19). *Navigating Nepal's digital frontier: Understanding cybersecurity in the digital age, ensuring data safety, and the role of AI*. The Himalayan Times. https://thehimalayantimes.com/opinion/navigating-nepals-digital-frontier-understanding-cybersecurity-in-the-digital-age-ensuring-data-safety-and-the-role-of-ai

critical data. Seek out capacity-building projects from global players without allowing them to dominate Nepal's digital territory.[102]

- **Grow an AI Cyber Ecosystem**
  Encourage local software houses to develop advanced security solutions that address Nepal's unique context. Offer incentives for startups tackling AI-based security challenges, turning the local industry into an engine of innovation.[103]
- **Cultivate Advanced Offensive & Defensive Capabilities**
  Don't just play defense—Nepal needs to master the arts of cyber offense and incident response, too. Knowing how attackers operate (and how to attribute their footprints) could be the difference between halting an incursion early and dealing with a full-scale breach.[104]

Charting a Secure Digital Future

With limited resources and a strategic location that turns it into a pivot point for cross-border data flows, Nepal cannot afford complacency. From immediate measures—like AI-powered defenses and cross-border data pacts—to long-haul strategies that build a homegrown cybersecurity ecosystem, every step matters.
Through sustained commitment to digital capacity building, smart alliances, and relentless innovation, Nepal can transform its vulnerabilities into strengths—emerging as a sturdy and forward-looking player on the global cyber stage.

Digital Sovereignty and Cybersecurity: A Balancing Act for Nepal

With AI revolutionizing every corner of the globe, Nepal stands at the precipice of a new digital dawn. Surrounded by powerful neighbors wielding formidable technological arsenals, Nepal must forge its own path: one that protects its digital borders, preserves sovereignty, and still taps into the breathtaking possibilities of global AI collaboration. It is the ultimate balancing act—a test of strategy, skill, and bravery.

Sovereignty vs. Dependency Tensions

It is important to emphasize that as a country sandwiched between powers that rival each other, Nepal faces the dual threats of foreign dominance and insufficient homegrown capacity.

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[102] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396
[103] Konrad, A. (n.d.). *This AI Startup In Nepal Is Helping Figma And OpenAI Close Their Biggest Sales*. Forbes. Retrieved 1 February 2025, from https://www.forbes.com/sites/alexkonrad/2025/01/29/this-ai-startup-in-nepal-is-helping-figma-and-openai-close-their-biggest-sales/
[104] June 8, G. N. & 2020. (n.d.). *Cybersecurity in Nepal: Essential Steps*. Retrieved 1 February 2025, from https://www.bankinfosecurity.asia/cybersecurity-in-nepal-essential-steps-a-14396

- **Dependence Risk:** Over Reliance on external AI infrastructure—particularly from China or India—could cost Nepal its autonomy. Once locked into another nation's data policies or tech ecosystems, Nepal risks losing its digital destiny to outside forces.[105]
- **Sovereign Capability Challenge:** Building domestic AI capacity is not easy. Lack of resources, limited training programs, and a tiny pool of local experts can make digital sovereignty feel like a pipe dream.[106]

The result? A complex balancing act—embrace external AI partnerships while protecting sovereignty, national security and personal data.

Strategic Policy Opportunities

While the trials are daunting, global trends toward data localization and digital sovereignty actually present Nepal with a secret weapon—**a policy roadmap it can adapt and adopt**. Across the developing world, many countries are standing tall, shouting: "Our data, our rules!" Nepal can harness this momentum to build strong domestic frameworks and lead by example in the South Asian region.

- **Learning from Others**
  By cherry-picking the best practices from nations that have faced the same problem (like Bangladesh or Indonesia), Nepal can craft a policy that's uniquely its own.[107]
- **Regional Collaborations**
  If Nepal jumps in now—coordinating with neighbors to shape cross-border data rules—it can help form the bedrock of an inclusive digital order, protecting smaller countries from getting steamrolled by giant AI superpowers.[108]

Security Architecture Requirements

A robust digital fortress demands both technical expertise and rock-solid governance structures. You need sturdy walls and watchtowers, but you also need skilled guards, well-defined laws, and a plan for what happens if (or when) the big threat arrives.

Infrastructure Build-Out

- **Domestic Data Storage**: Physical and cloud-based facilities within Nepal's borders ensure data does not vanish into foreign black boxes.[109]

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[105] Yayboke, E., Ramos, C. G., & Sheppard, L. R. (2021). *The Real National Security Concerns over Data Localization*. https://www.csis.org/analysis/real-national-security-concerns-over-data-localization
[106] *Digital Rights Nepal*. (2024, January 15). https://digitalrightsnepal.org/
[107] *The Nature, Evolution and Potential Implications of Data Localisation Measures*. (2023, November 9). OECD. https://www.oecd.org/en/publications/the-nature-evolution-and-potential-implications-of-data-localisation-measures_179f718a-en.html
[108] Yayboke, E., Ramos, C. G., & Sheppard, L. R. (2021). *The Real National Security Concerns over Data Localization*. https://www.csis.org/analysis/real-national-security-concerns-over-data-localization
[109] *Digital Rights Nepal*. (2024, January 15). https://digitalrightsnepal.org/

- **Network Hardening**: AI-driven cyber defenses that monitor and adapt to suspicious traffic in real time.[110]

Policy and Governance

- **Data Classification Systems**: Not all data is created equal. The government must label info (personal, strategic, or national-security critical) and design protective measures for each category.[111]
- **Strict Security Protocols**: Rules governing how data is handled, encrypted, or shared across borders. One slip-up could open the gates for hackers or espionage.[112]

Recommendations

Below are our top-line suggestions—split between short-term must-dos and long-term missions—to guide Nepal's digital sovereignty journey:

Short-Term Priorities

- **Define a Data Sovereignty Framework**
  Draft a clear statement of principles outlining what Nepal will—and will not—compromise in the digital realm.
- **Identify Critical Data Assets**
  Figure out which data categories (e.g., national security, personal info, vital economic intel) warrant maximum shielding.
- **Develop Core Data Infrastructure**
  Lay the groundwork for homegrown data centers. Use local resources, partner with trusted allies, and ensure strong cybersecurity from day one.
- **Enforce Rigorous Data Governance**
  Use classification systems and cross-border flow controls so Nepal's data does not wander into hostile territory.

Long-Term Strategy

- **Invest in Sustainable AI Capabilities**
  Pour resources into local R&D labs, universities, and public-private alliances to grow domestic AI know-how and reduce dependence on foreign providers.

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[110] Faruqe, M. Y. (2023, December 19). *Navigating Nepal's digital frontier: Understanding cybersecurity in the digital age, ensuring data safety, and the role of AI*. The Himalayan Times. https://thehimalayantimes.com/opinion/navigating-nepals-digital-frontier-understanding-cybersecurity-in-the-digital-age-ensuring-data-safety-and-the-role-of-ai

[111] *Digital Rights Nepal*. (2024, January 15). https://digitalrightsnepal.org/

[112] *Government's cybersecurity policy raises privacy and implementation concerns*. (n.d.). Retrieved 1 February 2025, from https://kathmandupost.com/science-technology/2023/08/17/government-s-cybersecurity-policy-raises-privacy-and-implementation-concerns

- **Diversify Partnerships**
  It is fine to collaborate with both China and India—just maintain clear boundaries. Do not let one overshadow the other, and keep Nepal's core values front and center.
- **Grow Local Expertise**
  Build an AI-savvy workforce. Offer scholarships, host international AI competitions, and boost public awareness of why secure digital systems matter.
- **Shape Global Norms**
  Take a seat at the global rulemaking table. Advocate for frameworks that protect smaller countries and encourage ethical AI adoption. Influence from the inside instead of simply following whatever the big players decide.

Nepal might seem like an underdog. But with shrewd policymaking, strong alliances, and a fierce commitment to its own digital sovereignty, it can stand shoulder-to-shoulder with the titans. The keys are clear vision, unwavering dedication to local capacity-building, and strategic engagement with international partners—without losing sight of national interests.
Nepal's path forward will not be free of obstacles. But by powering up its infrastructure, sharpening its policy, and forging alliances rooted in mutual respect, Nepal can work towards protecting its sovereignty, reaping the rewards of AI innovation, and lighting the way for other nations seeking their rightful place in the digital age.

Human Factors in Cybersecurity: Building Nepal's Cyber Resilience

Even the most advanced AI-powered fortresses can fall if their human defenders are not prepared for the heat of battle. In Nepal's case, technology alone will not be enough to stave off attacks from cunning cyber adversaries. True cyber resilience requires a force of well-trained, motivated, and culturally attuned defenders—people who can anticipate threats, communicate clearly, and adapt quickly when digital storms are brewing.
Nepal's challenge is both high-stakes and high-effort: reshaping a mindset that treats cybersecurity not as a distant, high-tech puzzle, but as a lived responsibility grounded in trust, preparedness, and cultural empathy.

Cultural and Organizational Psychology

For many Nepalis, hierarchical relationships, communal living, and strong social ties are woven into everyday life. These norms can be both a hidden boon and a subtle weakness when it comes to securing the digital realm.

- **Trust Dynamics in Hierarchies**
  In a tight-knit organizational culture, if the "boss" says everything is fine, employees might let their guard down—even when sneaky malware is knocking at the door. Nepal

must tackle such vulnerabilities by empowering everyone, from entry-level staff to top executives, to spot and report suspicious activity.[113]

- **Over-Reliance on Foreign Systems**
  Depending too heavily on outside AI solutions can undermine faith in local talents. To truly empower Nepalis, it is critical to champion homegrown capabilities, build local labs, and highlight "Made in Nepal" success stories—instilling pride as the first line of defense.[114]

At the core, **cultural evolution** is key. Nepal needs to nurture a climate of active security awareness, so that every individual sees themselves as a vigilant protector, not a passive consumer. This means replacing fear with confidence, skepticism with curiosity, and uncertainty with resilience.

Human Capital Development

Think of cybersecurity teams as versatile operatives. They need more than just technical skills; they also need soft skills—like crystal-clear communication, stable emotional well-being, and level-headed leadership in crisis.

- **Culturally Grounded Training**
  Workshops and courses should reflect local idioms, social norms, and success stories. A data breach simulation that resonates with Nepali cultural references packs more punch than a generic, one-size-fits-all training script.[115]

- **Leadership Development & Mentoring**
  Who leads when a data breach strikes at 3 a.m.? Nepal needs prepared leaders who can keep calm under pressure, foster teamwork, and coordinate responses across multiple organizations. Investing in leadership pipelines—through programs and mentoring—means fewer meltdown moments when things go sideways.[116]

- **Stress Management & Mental Health**
  Cyber defenders stand guard 24/7, often facing relentless attacks. Providing resources for burnout prevention, counseling, and team-building activities can help keep morale high and turnover low.[117]

By blending technical proficiency (think coding, data analytics, encryption) with interpersonal skills, Nepal can build a cyber task force that functions like a coordinated party: each member specialized, but ready to back each other up.

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[113] *Developing a Cyber Security Culture in Nepal*. (n.d.). ITCPL-Website. Retrieved 1 February 2025, from https://itconcerns.com.np/resource/developing-a-cyber-security-culture-in-nepal
[114] Ibid.
[115] Kathmandu University, Dhungana, R. K., Gurung, L., Poudyal, H., & University of Bremen. (2023). Cybersecurity Challenges and Awareness of the Multi-Generational Learners in Nepal. *Journal of Cybersecurity Education Research and Practice*, *2023*(2). https://doi.org/10.32727/8.2023.17
[116] Ibid.
[117] Ibid.

Institutional Response Patterns

Nepal's organizations—government agencies, tech companies, public utilities—cannot survive on fear-based responses alone, because fear freezes progress. Instead, they need **resilience-oriented** approaches that channel worries into practical action.

- **From Fear Control to Danger Control**
  When a threat looms, downplaying it ("Don't worry, it cannot happen here…") only fuels complacency. Instead, organizations should acknowledge the danger, activate well-drilled response protocols, and keep communication channels wide open.[118]

- **Agile Coordination & Info Sharing**
  Sometimes, the biggest barrier to mounting a strong defense is the wall between departments or agencies. Establishing cross-functional "cyber resilience squads" that unite technical experts, policy makers, and communicators can help tackle threats from multiple angles at once.[119]

Nepal should champion clear guidelines on who calls the shots, who shares vital intel, and how swiftly decisions get made—so that once the alarm sounds, everyone knows their role in the grand choreography of cyber defense.

Recommendations

Below are some key points for building Nepal's cyber resilience through a focus on human factors:

Cultural Evolution

- **Security Awareness & Engagement**: Launch nationwide campaigns, hackathons, and storytelling sessions that spotlight the individuals who stop cyber threats dead in their tracks.

- **Confidence in Domestic Expertise**: Celebrate local start-ups, universities, and innovators to grow public trust in homegrown solutions.

- **Sustainable Knowledge Ecosystems**: Nurture local cybersecurity communities—user groups, online forums, "cyber clubs" in schools—where new techniques and success stories can be freely exchanged.

- **Proactive Risk Management**: Motivate organizations to continuously evaluate their cybersecurity posture, reward timely disclosures of vulnerabilities, and embrace a culture of learning from near-misses.

Capacity Building

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[118] *Developing a Cyber Security Culture in Nepal*. (n.d.). ITCPL-Website. Retrieved 1 February 2025, from https://itconcerns.com.np/resource/developing-a-cyber-security-culture-in-nepal
[119] Ibid.

- **Culturally Appropriate Training**: Adapt global best practices to Nepal's linguistic and social contexts, so cybersecurity feels personal, relevant, and actionable.
- **Leadership for Cyber Resilience**: Identify and train future leaders who can rally teams under duress, coordinate quickly, and solve problems creatively.
- **Bridging Technical & Cultural Gaps**: Foster translation between "tech speak" and local idioms. Cyber professionals need to communicate in ways that resonate with everyone from engineers to everyday citizens.
- **Stress Management & Well-Being**: Provide counseling, peer-support networks, and mental-health resources—ensuring teams can deliver sustained vigilance over time.

By weaving these human-centered elements into Nepal's broader cybersecurity strategy, the nation can forge a **digital fortress** guarded not just by sophisticated algorithms but by disciplined, well-trained defenders.

In the unrelenting stage of cybersecurity, the real defense is not just firewalls or AI threat detectors—they are the people at every level of society who stand vigilant, adapt to new challenges, and work together to keep malicious forces at bay. A truly **resilient** cybersecurity posture hinges on cultural shifts, robust training, and organizational readiness.

By emphasizing the human factor—celebrating Nepali identity, nurturing local champions, and fostering open communication—Nepal can develop a model for holistic cyber defense in South Asia and beyond.

E. International Cooperation on AI

Artificial intelligence (AI) has rapidly become a focal point of international cooperation, driven by its transformative potential and the recognition that its development and governance require global collaboration.[120] This cooperation spans various forms, including bilateral agreements, multilateral initiatives, and international organizations' efforts.[121] Although a comprehensive review of all collaboration efforts is challenging due to the rapidly-evolving nature of AI, this section will give an overview of the major multilateral initiatives and bilateral efforts of the key international actors.

Key Areas of Cooperation

As the landscape of AI evolves, with consequences on an increasingly-diverse range of domains, international collaboration efforts expand to more areas, as well. However, some of the key areas of AI cooperation can be categorized into the following:

- **Research and Development (R&D)**: One of the most important areas of AI cooperation involves research and development efforts, where countries and businesses engage in joint research projects, knowledge sharing, and talent exchange to accelerate AI innovation and adoption.[122]
- **Standards and Governance:** With the rapid pace and increasingly complex web of AI research and development, countries have also focused on developing common ethical guidelines, technical standards, and regulatory frameworks to ensure responsible AI development and deployment.[123]
- **Data Sharing and Infrastructure:** Another key area of AI collaboration involves facilitating cross-border data flows and building shared infrastructure for AI research and development.[124]
- **Capacity Building:** As a growing form of AI cooperation, developing countries collaborate with technologically-advanced countries to boost their AI capabilities through education, training, and tech transfer.[125]
- **Addressing Global Challenges:** Leveraging the power of AI to address global issues such as public health emergencies, natural disasters, climate change, pandemics, and sustainable development constitutes another emerging area of AI cooperation.[126]

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[120] https://pam.int/un-resolution-artificial-intelligence/
[121] https://www.brookings.edu/articles/strengthening-international-cooperation-on-ai/
[122] https://www.mfa.gov.cn/eng/wjbzhd/202409/t20240930_11501255.html
[123] https://www.oecd.org/en/topics/policy-issues/artificial-intelligence.html
[124] https://www.brookings.edu/articles/strengthening-international-cooperation-on-ai/
[125] https://www.mfa.gov.cn/eng/wjbzhd/202409/t20240930_11501255.html
[126] https://afripoli.org/the-role-of-artificial-intelligence-in-fostering-multifaceted-cooperation-among-brics-nations

Multilateral AI Initiatives

Due to the overarching nature and far-reaching implications of AI, the above-mentioned areas of AI cooperation have occurred in different forms and through a number of platforms. The multilateral engagement on AI spans not just the United Nations (UN) framework but other existing regional organizations, blocks, alliances, and multi-stakeholder initiatives. The focus of these initiatives vary depending on the nature and purpose of multilateral bodies, but they generally extend to one or more of the key areas of AI cooperation mentioned above.

United Nations: A Multilateral Approach to AI Governance

The UN has been at the forefront of AI regulation when it comes to multilateral cooperation. Some of its key initiatives are as follows:

- **AI for Good Summit (2017-Present)**: the UN's leading agency for digital technologies International Telecommunication Union (ITU) established the AI for Good in 2017–as a platform "to leverage the transformative potential of artificial intelligence (AI) to drive progress toward achieving the UN Sustainable Development Goals (SDGs)."[127] Co-convened with the Government of Switzerland and in partnership with over 40 UN agencies, the "multi-stakeholder community" includes "over 37,000 active contributors [representing governments, academia, industry, and civil society] spanning more than 180 countries."[128]

- **Inter-agency Working Group on Artificial Intelligence (IAWG-AI)**: In October 2020, the UN's High-Level Committee on Programmes (HLCP) established the IAWG-AI, "an inter-agency working group on artificial intelligence, to be co-led by UNESCO and ITU."[129] According to its terms of reference,[130] the main functions of the group are:
    - Facilitate exchange of information internally within the UN system
    - Strengthen internal system-wide capacity
    - Complement and contribute to existing efforts
    - Facilitate interagency cooperation capacity building activities to support Member States

- **UNESCO's Recommendation on the Ethics of AI (2021)**: In November 2021, the UNESCO adopted the "Recommendation on the Ethics of Artificial Intelligence," and

[127] https://aiforgood.itu.int/about-us/
[128] https://aiforgood.itu.int/about-us/
[129] https://unsceb.org/sites/default/files/2020-12/CEB_2020_6_E.pdf
[130] https://unsceb.org/sites/default/files/2021-07/IAWG-AI%20ToR.pdf

recommended that "Member States apply on a voluntary basis the provisions of this Recommendation by taking appropriate steps, including whatever legislative or other measures may be required, in conformity with the constitutional practice and governing structures of each State."[131] Based on these recommendations, in September 2022, the United Nations System Chief Executives Board for Coordination endorsed the *Principles for the Ethical Use of Artificial Intelligence* in the United Nations System; the ten principles "grounded in ethics and human rights, aims to guide the use of artificial intelligence (AI) across all stages of an AI system lifecycle across United Nations system entities."[132]

- **High-Level Advisory Body on Artificial Intelligence:** In October 2023, the UN Secretary General created a 32-member high-level advisory body on AI, which included "experts in relevant disciplines from around the world" and aims to "offer diverse perspectives and options on how AI can be governed for the common good, aligning internationally interoperable governance with human rights and the Sustainable Development Goals."[133] In mid-2024, the Body released the final report, which included AI governance landscape mapping and options.[134] At the *Summit of the Future* in September 2024,[135] Member States considered adopting the *Global Digital Compact*, which aimed to "enhance international governance of artificial intelligence for the benefit of humanity," among other things.[136]

- **General Assembly Resolution on AI**: The UNGA has adopted two landmark resolutions on AI, led by the US and China each. Adopted on 21 March 2024, The first was on the promotion of "safe, secure and trustworthy" artificial intelligence (AI), which aims to protect human rights and personal data and to monitor AI for potential harms so the technology can benefit all. The resolution A/78/L.49 was "co-sponsored or backed by more than 120 other member states."[137] Similarly, on July 1, 2024, the UNGA adopted another resolution titled *Enhancing International Cooperation on Capacity-building of Artificial Intelligence*, "proposed by China and co-sponsored by over 140 countries."[138]

[131] https://unesdoc.unesco.org/ark:/48223/pf0000381137
[132] https://unsceb.org/principles-ethical-use-artificial-intelligence-united-nations-system
[133] https://www.un.org/digital-emerging-technologies/ai-advisory-body
[134] https://www.un.org/digital-emerging-technologies/ai-advisory-body
[135] https://www.un.org/en/summit-of-the-future
[136] https://www.un.org/sites/un2.un.org/files/sotf-pact_for_the_future_adopted.pdf
[137] https://news.un.org/en/story/2024/03/1147831
[138] https://english.www.gov.cn/news/202407/02/content_WS668394a7c6d0868f4e8e8c58.html

Global AI Partnerships

Outside the UN system, too, several AI collaborations and partnerships have emerged, roughly along the lines of either regional blocks, ideological groupings, or strategic partnerships. Some of them include, but are not limited to:

- **Global Partnership on Artificial Intelligence (GPAI)**: GPAI is a multi-stakeholder initiative involving governments, industry, and academia to foster international cooperation on AI.[139] GPAI was first launched in 2020, and it worked on four key areas: Responsible AI, Data Governance, Future of Work, and Innovation and Commercialization. GPAI later announced "an integrated partnership with the OECD," which brings together OECD members and GPAI countries to advance an ambitious agenda for implementing human-centric, safe, secure and trustworthy artificial intelligence (AI) embodied in the principles of the OECD Recommendation on AI."[140]For 2023-2024, India was GPAI's lead chair. During the "6th Meeting of the GPAI Ministerial Council held on 3rd July 2024 at New Delhi," GPAI members announced its "integrated partnership with the OECD bringing together all current OECD members and GPAI countries on equal footing, under the GPAI brand and on the basis of the OECD Recommendation on Artificial Intelligence."[141] Under the integrated partnership, OECD has identified seven priority issues: AI Futures, AI Compute and Climate, AI Risk and Accountability, AI and Health, AI Incidents, AI, Data, and Privacy, and Generative AI.[142] The meeting also reaffirmed a "commitment to pursuing a diverse membership, with a particular focus on low and middle-income countries to ensure a broad range of expertise, national and regional views and experiences based on our shared values." Accordingly, it called on countries, "regardless of their current membership status in the GPAI or OECD, to join us in this collaborative endeavor to harness the potential of human-centric, safe, secure, and trustworthy AI for the good of all."[143] Under this partnership, the GPAI aims to expand its initial membership from 44 to welcome new members "by consensus." For that, it has outlined the following requirements:[144]
    - Commitment to the shared values reflected in the OECD Recommendation on Artificial Intelligence by adherence thereto or to the principles drawn verbatim therefrom through prior membership in GPAI.
    - Demonstration of a proactive role in advancing responsible AI, grounded in human rights, both on domestic and international levels, as well as with organisations and initiatives.
    - Demonstration of the capacity to nominate experts with sufficient knowledge of AI-related issues to inform the work of the Integrated Partnership.

[139] https://www.industry.gov.au/news/global-partnership-artificial-intelligence-launches
[140] https://www.oecd.org/en/about/programmes/global-partnership-on-artificial-intelligence.html
[141] https://pib.gov.in/PressReleasePage.aspx?PRID=2030534
[142] https://oecd.ai/en/
[143] https://pib.gov.in/PressReleasePage.aspx?PRID=2030534
[144] https://www.oecd.org/en/about/programmes/global-partnership-on-artificial-intelligence.html

Serbia has inherited the GPAI's chairmanship for 2024-2025, and a GPAI Summit 2024 is to be held in Belgrade, Serbia, on December 3-4, 2024. It will bring together "GPAI countries, global AI experts, international organizations, industry leaders, and academia to discuss common global challenges and solutions related to AI, with the aim of guiding the responsible and human-centric development and use of this technology."[145]

- **AI Safety Summit 2023:** Held in the UK in November 2023, as the first ever global summit on AI, the Summit brought together "international governments, leading AI companies, civil society groups and experts in research" and aimed to "consider the risks of AI, especially at the frontier of development" and "discuss how they can be mitigated through internationally coordinated action."[146]

- **AI Seoul Summit 2024:** Building on the AI Safety Summit 2023, in May 2024, the Republic of Korea and the UK co-hosted the AI Seoul Summit, "bringing together international governments, AI companies, academia, and civil society to advance global discussions on AI."[147]

- **AI Action Summit 2025**: In February 2025, France hosted the AI Action Summit, which brought together "Heads of State and Government, leaders of international organizations, CEOs of small and large companies, representatives of academia, non-governmental organizations, artists and members of civil society" to discuss five key themes around AI: Public Interest AI, Future of Work, Innovation and Culture, Trust in AI, and Global AI Governance.[148]

- **G7 and G20 AI Initiatives**: Both G7 and G20 have launched initiatives and regulatory frameworks on AI. For instance, in May 2023, G7 countries endorsed the *Hiroshima AI Process Comprehensive Policy Framework*, "the first international framework that includes guiding principles and code of conduct aimed at promoting the safe, secure and trustworthy advanced AI systems.[149] Similarly, G20 has also adopted its own G20 AI Principles (2019),[150] which was reaffirmed in the G20 New Delhi Leaders' Declaration.[151] The G20 has also endorsed the OECD AI Principles (2019).

- **African Union AI Working Group (AUWG):** In 2019, the African Union (AU) established the AUWG as "a pioneering platform" aimed at developing "a unified AI

[145] https://preview.inwink.com/summit-gpaiserbia2024_1ac04365-6d81-ef11-8473-0022488afd9f/
[146] https://www.gov.uk/government/topical-events/ai-safety-summit-2023
[147] https://www.gov.uk/government/topical-events/ai-seoul-summit-2024
[148] https://www.elysee.fr/en/sommet-pour-l-action-sur-l-ia
[149] https://www.soumu.go.jp/hiroshimaaiprocess/en/index.html
[150] https://www.caidp.org/resources/g20/
[151] https://www.caidp.org/app/download/8475329463/G20-New-Delhi-Leaders-Declaration.pdf?t=1725365713

strategy for Africa."[152] Accordingly, in July 2024, the AU Executive Council adopted the AU Strategy on Artificial Intelligence. "The Continental AI Strategy proposes a people-centric, development-oriented and inclusive approach around five focus areas and fifteen policy recommendations."[153]

Bilateral AI Cooperation

With the proliferating use of AI globally, countries have also been increasingly seeking to forge bilateral partnerships that would allow them to maximize AI's benefits while reducing the possible harms. Identifying all existing and emerging bilateral partnerships extends beyond the scope of this research, here are some key developments on the AI front when it comes to bilateral collaboration between the actors directly relevant (case studies) for this research:

- **US-India AI Cooperation**: Over the years, the US and India have come to be close strategic partners when it comes to tech and AI cooperation. In March 2021, the Indo-U.S. Science and Technology Forum (IUSSTF) launched the US-India Artificial Intelligence Initiative (USIAI),[154] which serves as "a platform to discuss opportunities for bilateral AI R&D collaboration, share ideas for developing an AI workforce, and recommend modes and mechanisms for catalyzing the partnerships."[155] In 2022, the two countries launched the US-India Initiative on Critical and Emerging Technology (iCET), a "unique framework to deepen technological and economic cooperation between the United States and India."[156] Supported by these government-led initiatives, a host of private companies from both the countries have jumped on the collaborative journey to enhance AI innovation and capacity building.

- **US-China AI Engagement**: Despite tensions, caused largely by US export control of its most-advanced AI chips, the two countries have found ways to bilaterally engage on AI regulation and governance. For instance, in May 2024, the US and China held the "first meeting of the inter-governmental dialogue on AI," where the two sides had "an in-depth, professional and constructive exchange of views on the risks of AI, global governance and other issues of concern."[157] Similarly, the two strategic rivals have been "the most frequent partners in AI research" for over a decade.[158]

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[152] https://stip.oecd.org/stip/interactive-dashboards/policy-initiatives/2023%2Fdata%2FpolicyInitiatives%2F26474
[153] https://au.int/sites/default/files/documents/44004-doc-EN-_Continental_AI_Strategy_July_2024.pdf
[154] https://dst.gov.in/us-india-artificial-intelligence-usiai-initiative-launched
[155] https://usiai.iusstf.org/introduction1
[156] https://carnegieendowment.org/research/2024/10/the-us-india-initiative-on-critical-and-emerging-technology-icet-from-2022-to-2025-assessment-learnings-and-the-way-forward?center=india&lang=en
[157] https://english.www.gov.cn/news/202405/16/content_WS664579edc6d0868f4e8e7268.html
[158] https://restofworld.org/2025/us-china-lead-global-ai-collaboration/

- **EU-India AI Collaboration**: As mentioned above, India engages with the EU and its member states through the GPAI, which helps bridge AI research and policy between the two actors. In addition, they have also established the EU-India Trade and Technology Council (TTC), which acts as a crucial platform for bilateral AI cooperation. During the first meeting of the EU-India TTC in May 2023, for instance, the two partners "committed to seek cooperation on trustworthy Artificial Intelligence and coordinate their policies with regards to the strategic semiconductors sector through a dedicated Memorandum of Understanding."[159] India has also been proactive in expanding its bilateral AI partnership with individual member states. For example, in January 2025, India and France agreed "to enhance partnership in high technology."[160] Similarly, India has also partnered with Germany to set up artificial intelligence initiatives focusing on healthcare and sustainability, which is led by the Indo-German Science and Technology Centre (IGSTC).[161]

- **China's AI Partnerships**: As a leader in AI research and development, China has also exercised high diplomacy to forge bilateral partnership with countries across the world. A large part of China's AI cooperation with Belt and Road Initiative (BRI) partner countries occurs under the broader framework of what it calls Digital Silk Road (DSR). Through the DSR assistance, China helps improve partner countries' AI capabilities through tech transfer, training, and exchanges, and provides them with "surveillance and artificial intelligence infrastructure."[162] China has also been cultivating bilateral AI cooperation with Russia[163] and the Association of SouthEast Asian Nations (ASEAN), the latter of which is "aimed at further strengthening digital infrastructure, promoting cloud computing and enhancing artificial intelligence governance."[164]

- **US-EU AI Cooperation**: As close strategic partners, the US and EU collaborate on a wide range of topics and areas in AI, including research, development, and regulation.[165] The EU-US Trade and Technology Council (TTC) serves as the institutional platform "fostering cooperation on trade and technology-related issues," where "promoting technology standards and trustworthy artificial intelligence" features as key priorities.[166]

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[159] https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2728

[160] https://www.hindustantimes.com/india-news/india-france-agree-to-enhance-partnership-in-high-technology-101737468433494.html

[161] https://indiaai.gov.in/article/india-s-top-three-international-collaborations-in-ai

[162] https://www.cfr.org/china-digital-silk-road/

[163] https://www.reuters.com/technology/artificial-intelligence/putin-orders-russian-government-top-bank-develop-ai-cooperation-with-china-2025-01-01/

[164] https://www.chinadailyhk.com/hk/article/602991

[165] https://digital-strategy.ec.europa.eu/en/news/european-union-and-united-states-america-strengthen-cooperation-research-artificial-intelligence

[166] https://digital-strategy.ec.europa.eu/en/policies/trade-and-technology-council

> In September 2024, the US and EU signed the landmark *Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law,* the first ever international AI treaty that aims "to address specific challenges which arise throughout the lifecycle of artificial intelligence systems and encourage the consideration of the wider risks and impacts related to these technologies including, but not limited to, human health and the environment, and socio-economic aspects, such as employment and labour."[167]

As the above-discussed AI cooperation efforts and platforms suggest, the multilateral frameworks and initiatives, such as those by the UN, OECD, GPAI, and AU, largely aim to establish ethical standards, regulatory benchmarks, and governance guidelines. In comparison, the bilateral partnerships often seek to promote AI research, innovation, and development through tech-transfer and capacity building. Drawing from these international practices, the next section will delve into Nepal's AI landscape, explore the opportunities and challenges, and identify ways to enhance the country's AI ecosystem for national development through AI diplomacy.

[167] https://www.coe.int/en/web/conventions/full-list?module=treaty-detail&treatynum=225

F. Nepal’s AI Landscape

Gaps and Opportunities in the Making of Nepal’s AI Policy Concept Paper

The AI Policy Concept Paper, released in July 2024 by the Government of Nepal marks an important step toward leveraging AI for economic and social transformation. The concept paper broadly envisions building an AI ecosystem in Nepal. However, it lacks clarity on implementation steps. The paper has referenced international practices, yet there are inadequate addresses concerning Nepal´s unique cultural, technological, and developmental challenges, emphasizing the need for localized solutions.

Although many Nepali organizations are innovating in AI, so far, there is no cohesive government policy to foster an inclusive AI ecosystem. As such, the paper highlights the importance of a dedicated AI oversight body to guide human capital, policy enforcement, and AI governance. Digital literacy, capacity building, and equitable internet access are identified as critical challenges in the strategy paper. Similarly, the absence of policies for data security, cross-border data regulations, and AI-generated content transparency further highlights the gaps. To address these, a National AI Policy and legally mandated Data Protection Framework should include user privacy and adherence to international standards.

The concept paper advocates for digital governance infrastructure and AI-driven research to enhance public service delivery and industrial productivity. Similarly, it emphasizes AI´s role in addressing national challenges in sectors such as healthcare, agriculture, education, energy, and climate change mitigation among others. Nevertheless, robust investment, international collaboration, and enough digital infrastructure are needed to unlock AI´s transformative potential that Nepal desires to benefit from. In such a scenario, a unified national portal for AI knowledge sharing and a governance structure to regulate AI systems are of paramount importance for Nepal. Developing sector-specific initiatives, creating standards for AI usage, and advancing AI diplomacy can help address ethical, social, political, economic, and environmental challenges. For Nepal to harness AI effectively, it must align policies with international best practices, invest in digital infrastructure, and prioritize human-centric economic growth. By doing so, the nation can promote innovation, address ethical concerns, and march toward sustainable development goals.

Thus far, Nepal has not established a national position or a comprehensive policy paper on AI—the recently released AI concept paper was the first of its kind in the country, but it primarily focused on domestic policy challenges and did not outline a framework for Nepal’s international relations. Therefore, this paper also seeks to explore the national stances of various countries worldwide, draw insights from them, and shape Nepal's position and prospects in AI.

Bridging the Divide and Embracing AI Readiness in Digital Nepal

The government of Nepal has introduced several policy and regulatory frameworks, such as Electronic Transaction Act (2008), National Broadband Policy (2015), National ICT Policy (2015), and Digital Nepal Framework (2019). Additionally, foundational initiatives like the Government Enterprise Architecture (GEA) and Nepal e-Governance Interoperability Framework (NeGIF) have also been developed for optimizing government operation, enhancing service delivery, facilitating seamless integration and interoperability across various government agencies. Additionally, the Directive on the Development and Management of official websites of government offices, 2078 BS, can help standardize the presentation of information for public access.[168]

The National ICT Policy introduced in 2015 aims to advance the vision of transforming Nepal into a knowledge and information-driven society by leveraging rapid developments in the ICT sector. Likewise, The Digital Nepal framework identifies eight key sectors—digital foundation, agriculture, health, education, energy, tourism, finance, and urban infrastructure. Within these sectors, 80 digital initiatives have been identified to promote Nepal´s socioeconomic growth. These initiatives are designed to address critical challenges while unlocking the growth potential within each sector.[169] Aligning with the federal governance structure, these frameworks carry potential to go beyond the centralized deployment of digital government services adapting to the provincial and local levels.

The 2023 AI Readiness Index assessed governments' preparedness to implement AI in the delivery of public services to their citizens. Unsurprisingly, Nepal lagged far behind, placed at 150th out of 193 countries.[170] This highlights the challenges that Nepal faces to develop and maintain a robust digital public infrastructure system in Nepal.

There is a strong correlation between digital adoption and a country's GDP growth. A World Bank report suggests that a 10-percentage point increase in fixed broadband penetration would

[168]Nepal In Data. "Government Websites to Maintain Privacy Standards as per New Directive." Nepal In Data. 2 Sept. 2021, https://nepalindata.com/ne/Government-websites-to-maintain-privacy-standards-as-per-new-directive/. Accessed 6 December 2024.
[169]Ministry of Communication, Information and Technology, "Digital Nepal Framework." Government of Nepal: Ministry of Communication, Information and Technology 2018, https://mocit.gov.np/content/455/455-digital-nepal-framwork/. Accessed 6 December 2024.

[170] Oxford Insights. "Government AI Readiness Index 2023." Oxford Insights, https://oxfordinsights.com/ai-readiness/ai-readiness-index/. Accessed 6 December 2024.

increase growth by 1.38%.[171] In Nepal, businesses and organizations are increasingly turning to digital marketing to enhance their online presence and promote their services both locally and globally. Although still in its early stages, e-commerce in Nepal is expanding, with fintech startups like eSewa and Khalti playing a key role in transforming the country's payment ecosystem. Likewise, there is a rapid expansion of internet usage in Nepal which is largely fueled by the growing popularity of social media platforms such as Facebook, X (formerly Twitter), and Instagram. Similarly, online communication tools like WhatsApp, Viber, and IMO contribute to this growth. Additionally, increased engagement in activities like YouTube streaming, music streaming, and e-commerce further drives internet adoption in the country.

Like many developing countries of the global south, Nepal's ability to become AI-ready—a digitally advanced and knowledge-centric nation—depends on its capacity to invest in capital-intensive ICT endeavors. However, challenges remain in bridging the existing digital divide across regions, ethnicities, economic classes and genders. An effective policy approach would entail not only secure human and financial capital but also leverage substantial social capital to achieve balanced and effective outcomes. Our respondent observed that Nepal is extremely behind in AI adoption. There is a shortage of tech visionaries, and policymakers and government officials show little enthusiasm—even when private companies offer to collaborate at no cost. The prevailing mindset fears that AI-induced automation will lead to job losses, creating a subtle resistance to its adoption. As it turns out, Nepal is still navigating the Internet era, making it slow to catch up with the rapidly-evolving AI ecosystem. As a consequence, widespread AI literacy remains quite distant.

It is widely known that AI development relies heavily on vast datasets and huge computing power. Smaller countries like Nepal often have limited access to these resources, constraining its ability to develop its own competitive AI ecosystem. As indicated by our respondent, given the financial resource constraints, Nepal should be utilizing open-source AI initiatives that are playing a significant role in AI development, with many researchers and companies sharing code, data, and models. This enables Nepali regime to foster collaboration and accelerate innovation. For Nepal, prioritizing AI development is crucial to tackle endemic challenges in sectors like healthcare, education, agriculture, and disaster management. As such, there is wide acknowledgement globally concerning the importance of AI, however, there are substantial disparities in resources, priorities, and challenges between technologically advanced economies and countries of the Global South. On this note, Nepal should carefully address these issues while formulating AI policies and strategies.

[171] Minges, Michael. "Exploring the Relationship Between Broadband and Economic Growth." World Development Report 2016: Digital Dividends, January 2015, https://documents1.worldbank.org/curated/zh/178701467988875888/pdf/102955-WP-Box394845B-PUBLIC-WDR16-BP-Exploring-the-Relationship-between-Broadband-and-Economic-Growth-Minges.pdf.

Advanced economies of the world are focused on cutting-edge AI research and development. In contrast, countries of the Global South, like Nepal, are still in the early stages of building foundational digital infrastructure, including ensuring reliable internet access and establishing data centers—both critical for AI adoption. Advanced economies benefit from a larger pool of skilled professionals, such as AI researchers, engineers, and data scientists, while countries like Nepal are facing challenges related to skilled human capital. This highlights the need for investment in education, training and upscaling of manpower in the domain of digital infrastructure.

Moreover, advanced economies often have access to extensive and high-quality datasets essential for training AI models, whereas countries like Nepal face challenges related to data availability, quality, and accessibility. Moreover, while advanced economies have made notable progress in creating ethical guidelines and regulatory frameworks for AI, countries like Nepal are only beginning to explore these aspects.

According to our respondent, instead of attempting to compete in broad AI domains, Nepal can focus on niche applications relevant to its national and local context. For instance, Natural Language Processing (NLP) for Nepali languages: developing tools for translation, transcription, and analysis of Nepali text and speech, AI for Disaster Risk Reduction (DRR) and management: using AI for early warning systems, disaster response coordination, and post-disaster recovery efforts, AI in agriculture and rural development: applying AI for precision agriculture, crop monitoring, and livestock management to improve agricultural productivity and livelihoods in rural communities, AI for cultural heritage preservation: in digitizing, analyzing, and preserving Nepal´s rich cultural heritage. As such, and as per our respondent, developing a national AI strategy with clear priorities should include, identifying key sectors where AI can have the maximum positive impact, outlining clear goals and objectives for AI adoption and development, addressing ethical considerations, data governance, and potential societal impacts, promoting public-private partnerships to leverage expertise and resources among others.

Similarly, as per our respondent, another domain of prioritization can include education, skill development and training in Science, Technology, Engineering, and Mathematics (STEM) fields, data science, and AI-related skilling, reskilling and upscaling for building domestic talent pool. These can include: strengthening university programs in computer science, data science, and related disciplines; strengthening support to vocational training programs to equip workers with practical AI skills and promoting digital literacy and awareness among other domains. In addition, emphasis should be equally given on building digital public infrastructure which includes investing in reliable internet access, data centers, and other digital infrastructure that are fundamental for AI adoption and development. In a similar vein, according to our respondent, another area of focus should be on Data Governance that includes data protection and privacy consisting of clear data protection laws aligning with international standards (like GDPR) and addressing data collection, storage, use, and transfer. This builds public trust and fosters

responsible data handling, essential for AI development. Likewise, policies should facilitate access to anonymized or aggregated datasets for research and development while protecting individual privacy. Open data initiatives for non-sensitive government data can also spur innovation. Moreover, clear guidelines on data ownership and intellectual property rights related to AI-generated content and data-driven innovations are needed.

According to our respondent, developing an LLM model in Nepal remains a distant goal, as progress has been limited to a few chatbots in the health and education sectors. Nepal has yet to identify and prioritize specific areas of focus within AI beyond these domains. Additionally, in terms of data security, Nepal has not effectively utilized its health-related data for its own purposes and lacks control over data policies. Consequently, establishing a robust data protection policy also appears to be a distant prospect. Nevertheless, as per our respondent, targeted (not blanket) AI-specific regulations can facilitate avoiding overly broad regulations that stifle innovation. As such, targeted regulations can include high-risk AI applications, such as (i) AI in critical infrastructure that includes regulations for AI used in power grids, transportation systems, and financial systems to ensure safety and reliability; (ii) AI in law enforcement and surveillance that includes strict guidelines on the use of AI for facial recognition, predictive policing, and other surveillance technologies to protect civil liberties; (iii) AI in healthcare that includes regulations for AI-based medical diagnostics and treatments to ensure patient safety and efficacy among others.

Along similar lines, further areas worthy of Nepal's AI consideration are (i) Liability and Accountability that includes establishing a clear legal framework for liability and accountability in cases where AI systems can cause harm–crucial for building public trust and ensuring that there are mechanisms for redress; (ii) Standards and Certification that includes promoting the development of standards and certification processes for AI systems to ensure quality, safety, and interoperability; (iii) Encouraging Experimentation and Sandboxes that include creating regulatory sandboxes or innovation hubs where companies can test and develop AI technologies in a controlled environment with reduced regulatory burdens–fostering innovation while allowing regulators to learn and adapt; (iv) Addressing Bias and Fairness that includes promoting policies for the development and use of fair and unbiased AI systems–that incorporates addressing data bias, algorithmic bias, and ensuring that AI systems do not perpetuate or exacerbate existing inequalities.

Role of FDI in Shaping Nepal's AI and Digital Transformation

AI ready Nepal will require a large-scale investment with an aggressive plan to achieve the desired benefits. Nepal´s FDI in 2020 was $0.13 billion, marking a 31.76% decrease from 2019. In 2021, FDI rose to $0.20 billion, reflecting a 55.04% increase from the previous year. However, in 2022, FDI dropped to $0.70 billion, a 66.66% decline from 2021. For 2023, FDI

remained at $ 0.07 billion, a 12.8% increase from 2022.[172] In the first four months of the 2024-25 fiscal year, Nepal received FDI commitments worth millions of USD across hundreds of projects, with most of the investments focused on small-scale initiatives, followed by medium- and large-scale projects. Tourism accounted for the largest share at 66%, followed by services at 23% and manufacturing at 7%. Additionally, the automatic approval route for FDI in the same FY facilitated 109 projects, totaling $12.04 million in commitments. The majority of these investments were in ICT at 70%, followed by manufacturing and tourism at 11% each.[173] However, FDI in Nepal continues to be a significant challenge, as the net flow of such investments as a percentage of GDP remains below 1%. Additionally, there is a large gap between committed investments and actual disbursements.[174]

In Asia's advanced economies, there is a likelihood of jobs being complemented by AI, entailing that technology could enhance productivity rather than replace these job roles altogether. However, it has been forecasted that concentration of such jobs in these economies could exacerbate inequality between nations over time. For instance, approximately 40% of jobs in Singapore are considered highly compatible with AI, compared to only 3% in Laos.[175]

On another front, Global AI advancements have the potential to disrupt domestic industries in smaller countries. Automation in manufacturing or service sectors elsewhere can impact local employment and economic structures. As a remittance-based and consumption-led economy, Nepal relies heavily on remittances and import revenues. As such, with the global spread of AI, there is a risk that Nepali workers in developed countries could be replaced, which would have negative consequences for the country's economy. Moreover, Nepal's ambition to transition to digital governance faces challenges due to its limited capacity to invest in machine security

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[172]Macrotrends. "Nepal Foreign Direct Investment 1972-2024." Macrotrends. https://www.macrotrends.net/global-metrics/countries/NPL/nepal/foreign-direct-investment. Accessed 6 December 2024.

[173]Department of Industry, Ministry of Industry, Commerce, Trade and Supplies. "Monthly Report of Foreign Direct Investment Approval of Kartik, 2081." Government of Nepal-Ministry of Industry Commerce, Trade and Supplies, https://doind.gov.np/detail/268. Accessed 5 December 2024.

[174]World Bank Group. "World Development Indicators." World Bank Group, https://databank.worldbank.org/reports.aspx?source=2&series=BX.KLT.DINV.WD.GD.ZS&country=NPL. Accessed 5 December 2024.

[175]https://www.imf.org/en/Blogs/Articles/2025/01/05/how-artificial-intelligence-will-affect-asias-economies

systems, unlike developed nations. The rise of AI could also exacerbate security threats in developing countries like Nepal.[176]

However, Nepal is not far behind in terms of understanding and willingness to adopt ICT. When it comes to investment and digital infrastructure, the country lags significantly behind developed nations. In view of this, Public-private partnerships and foreign investments are vital for developing Nepal's AI ecosystem, as they bring technological expertise and financial resources necessary for the sustainability and scalability of the program. Foreign investments can also provide Nepal with valuable skills and insights from similar projects undertaken by international investors elsewhere. To attract foreign investments, potential actions include expediting FDI applications for Digital Nepal initiatives through a single-window system, raising FDI limits, and simplifying the repatriation of funds, such as allowing 100% FDI for Digital Nepal initiatives.[177]

According to our informant, although Nepal is not yet in a position to fully assess the broader implications of AI, this early stage presents an advantage. By observing how AI is being developed and implemented globally, Nepal can learn from the experiences of others, including the potential negative consequences of AI adoption. This allows Nepal to strategize and implement AI in a way that minimizes its adverse effects while maximizing its benefits. For developing countries like Nepal, importing technologies after other nations have tested and refined them offers the benefit of foresight. By understanding the potential challenges and impacts, Nepal can better prepare itself to embrace AI in a more sustainable and thoughtful manner.

There are efforts underway in Nepal to formulate policies related to AI, but it is crucial that these policies prioritize fostering growth rather than imposing restrictive control mechanisms. Pertaining to this, our respondent suggests, Nepal should focus on creating policies that enhance and support the development of this emerging sector, rather than stifling its progress with excessive regulation. As such, policymakers and bureaucrats should be vigilant toward balancing regulatory mechanisms and offering sufficient space for innovation, especially at the early stage of AI ecosystem development. In a similar vein, our respondent highlighted several endemic challenges in Nepal´s IT sector: a severe brain drain of skilled professionals. Even leading IT companies struggle with a lack of senior experts, resulting in a workforce dominated by junior employees and engineers, as many seek better opportunities abroad. In terms of data availability, public data in Nepal offers little value—as truly useful datasets remain inaccessible. On top of that, the country has minimal computing infrastructure, with limited prospects for investment due

[176]Upadhayay, Raj Agni. "Artificial Intelligence: Opportunities and Challenges for the Global South with a Focus on Nepal". Nepal Council of World Affairs, 6 Mar. 2024, https://www.nepjol.info/index.php/ncwaj/article/view/62979. Accessed 5 December 2024.
[177]Ministry of Communication and Information Technology. "2019 Digital Nepal Framework: Unlocking Nepal's Growth Potential." Government of Nepal- Ministry of Communication and Information Technology, 2018, https://giwmscdnone.gov.np/media/app/public/22/posts/1663132711_92.pdf. Accessed 6 December 2024

to resource constraints. As a result, most AI models and tools developed in Nepal rely heavily on baseline open-source technologies.

As our respondent puts it, Nepal´s AI ecosystem should focus on identifying its unique selling point to establish a strong foundation. One strategic approach is fostering consortiums and alliances through strategic partnerships, which also facilitate valuable learning opportunities. According to our respondent, high-income countries are often eager to support lower-income nations. Therefore, resource-constrained countries like Nepal should leverage this interest to advocate for the establishment of a Global AI fund. Such a fund could be utilized for research and development, with organizations like FNCCI and Nepal's IT sector playing pivotal roles in such an initiative. The Government of Nepal, as such can collaborate with private tech companies on AI initiatives, recognizing the private sector´s expertise and resources. These partnerships can involve joint research projects, data sharing agreements, and the development of AI-based solutions for public services.

In our immediate neighborhood, according to our respondent, China has developed a strategic plan for AI, and India is following a similar pathway. Both countries are destined to become superpowers in the near future. In contrast, Nepal has lagged behind in technological advancement. However, by strategically leveraging the projects and initiatives of neighbors, Nepal could reap significant benefits. Adopting models such as G2G, B2B, or professional-to-professional collaborations could enable Nepal to tap into the ripple effects of AI advancements in China and India. At the same time, Nepal should actively seek collaboration with its distant neighbors. As such, Nepal should adopt a strategic hedging approach to build ties with all global tech powers. This strategy would enable Nepal to maintain good relationships with various tech nations by applying a range of policy options, including selective involvement, restrained opposition and partial compliance, all aligned with its national interests on AI. In doing so, Nepal should focus on both bilateral and multilateral cooperation ensuring multiple alignments with different technological powers. This approach could help Nepal strike a balance between realism and self-confidence optimizing benefits through collaborative partnerships.[178]

There are countries and private companies across the globe that are involved in technology transfer and capacity-building initiatives to help developing countries adopt and utilize AI technologies. This includes providing training, technical assistance, and access to AI resources. One of our respondents had a consistent view that, for Nepal, China is quite open to IT and AI collaboration internationally. For instance, World Robot Cooperation Organization (WRCO)—China based robotics research, development, design, production, and application based organization has been opening a collaborative platform with Robotics Association of Nepal (RAN). Moreover, Nepal participated in the BRI Skills Competition—showcasing skills diplomacy. As part of the BRI, Nepal has been participating in such competitions. In a similar

[178] https://kathmandupost.com/columns/2023/09/24/time-to-re-engineer-nepal-s-foreign-policy

vein, Nepali private organizations like RAN have also participated in summits like in the ITU—a global assembly themed AI for good summit—accelerating the UN sustainable development goals.

According to our respondent, Nepali IT industry faces a scarcity of skilled human resources. As such, it is not in a status to claim to have AI talent. Nevertheless, there are renowned IT companies in Nepal that are attempting to nurture the talent pool. Nevertheless, nurturing these companies is one thing, and promising that it has enough of a talent pool is another. In context, various initiatives on AI programs are evolving along with academia, like Kathmandu University, and Tribhuvan University among others. Though Nepal has yet to develop real resources in areas like GPU, TPU, and NPU among others. When it comes to offering skilled labor to global AI investors and markets, Nepal is likely to fall short due to the lack of AI talent pool.

There is a tough contest for AI talent nurturing and acquisition globally, with companies and countries vying to attract and retain the best researchers and engineers. As such, according to our respondent, there is a brain drain from Nepal to the more advanced economies of the world. It is evident that intense global competition for AI talent makes it difficult for smaller countries like Nepal to attract and retain skilled researchers, engineers, and data scientists. Their talent is being drawn to larger economies offering higher salaries and more advanced research opportunities. In light of the current scenario, private tech companies in Nepal are at the forefront of AI innovation, driving much of the research and development in this field. As such, according to our respondent, these companies can exert significant influence on government policy related to AI, through lobbying, participation in advisory committees, and public advocacy among others.

There are countries, especially middle powers, which are concerned about becoming overly reliant on foreign AI technologies and companies, which has the potential of inducing vulnerabilities and dependencies. As such, these countries seem to be aimed at developing domestic AI capabilities and promoting technological self-reliance. According to our respondent, historically, France and Germany deployed tech diplomats to Silicon Valley as early as 2008 to strengthen their techno-economic cooperation. From a contextual standpoint, Nepal could draw inspiration from such practices by deploying tech diplomats to advance its technological and economic ties while making strategic promotion of its AI and technological innovations to key players such as India, China, Europe, and the US among others. This approach could also help position Nepal as a competitive and relevant player in the nexus of FDI in the regional tech ecosystem. The country should seek collaborations with major tech companies like Google and Microsoft to strengthen its computing infrastructure, offering tax incentives through state-subsidized policies to attract their investment.

In the context where many of the biggest companies have pledged to achieve ´net zero´ emissions by 2050, aiming for no net greenhouse gas emissions. Nevertheless, they are struggling to meet this goal due to unforeseen rise in energy demand from data centers.[179] In the past two years, data centers have increased global electricity demand, yet the shortage of clean energy continues to be a key obstacle to their growth. For instance, companies like Google and Microsoft are already using as much electricity as the entire country of the Netherlands. High-tech companies have a significant appetite for energy, and the climate crisis is pushing them to explore renewable energy options. Nepal's excess electricity generation capacity aligns with the growing global demand to power generative AI data centers.[180] As such, creating an enabling environment for foreign investment and partnerships in specific AI domains aligned with national priorities can help Nepal access capital, technology, and expertise.

Locating Nepal´s AI and Digital Diplomacy in a Multipolar Technological World

The invention of the telegraph in the 19th century is considered a watershed moment in diplomatic communication that drastically reduced the time required for cross-country exchange of messages. This innovation not only accelerated diplomatic negotiations but also reshaped power symmetries and the management of information across different geographies. In a similar vein, with the emergence of the internet in the late 20th century, rapid spread of information enhanced global communications leading to another paradigm shift in a digital world, back then.[181] In a current digital world, international relations are undergoing a transformative phase as technology has become intertwined with countries' foreign policy. The widespread impact of technological advancements has driven rapid social changes, compelled governments to adopt innovative strategies, and redefined the ways in which governments and citizens engage with one another.[182] As such, the integration of AI into diplomacy is not an unprecedented happening, but rather a natural continuation in the ongoing relationship between technological innovation and diplomatic practices.[183]

In a rapidly evolving AI world, the diplomatic arena is encircled with a need to adopt and adapt to the global AI race. For instance, in several conventional and non-conventional diplomatic engagements, the decision made carries profound implications for the sovereign state, and the complexity of such fields is bound to be overwhelming. As such, in high-stake meetings of this nature, AI tools have potential to serve as a valuable ally in diplomatic negotiations.

[179] https://nepalitimes.com/opinion/people-power/nepal-as-an-ai-power-bank

[180] https://nepalitimes.com/opinion/people-power/nepal-as-an-ai-power-bank

[181]https://www.linkedin.com/pulse/revolutionizing-diplomacy-artificial-intelligence-new-malak-6x63f/
[182] https://southasianvoices.org/the-tech-moment-in-indias-foreign-policy/
[183]https://www.linkedin.com/pulse/revolutionizing-diplomacy-artificial-intelligence-new-malak-6x63f/

Contextually, these tools powered by advanced algorithms not only can assess the present situation but also simulate potential outcomes—providing insights into the implications of various policy directions Nepal could pursue.

As Nepal´s diplomats engage in debates and negotiations, AI tools can serve as a source of empirical insight. By simulating the outcomes of various diplomatic strategies, future outcomes can be identified—along with analyzing the strengths, weaknesses, opportunities, and threats in its negotiation and bargaining strategies. For that reason, rather than replacing the judgement of Nepal's diplomats, AI is likely to enhance diplomatic discussions by providing data-driven guidance to support their decision-making. Nevertheless, it is important to highlight that integrating AI into the delicate realm of diplomatic communications raises valid security concerns. Diplomacy often involves confidential discussions and sensitive information, where any breach could have severe consequences. Yet, this does not call for avoiding AI altogether but rather strengthening its security measures.[184] In light of this, security must be a fundamental consideration in AI development, built into the system from the outset. Secure data storage and algorithms designed to resist any malware is critical. That said, international cooperation is essential for creating and enforcing cybersecurity standards for AI in diplomatic contexts.[185]

Some industry insiders argue that overregulating AI might foster innovation, while policymakers globally are emphasizing the need for dedicated legislation to govern the emerging technologies. For instance, middle powers like the UK and Japan are prioritizing the development of strong regulatory frameworks that balance AI advancements with ethical standards and public safety.[186] As such, unlike the world's major powers, middle powers and big tech leaders approach the global AI competition with a different perspective. Many view the spread of technology as a means to enable the new era of multipolarity. While the US and China compete for dominance in AI, countries such as France, Saudi Arabia, Singapore, and the UAE are developing sovereign AI systems that make use of their national strengths. These systems leverage advantages like control over data access, intimate understanding of their economies, and expertise in their languages and cultures to reduce bias. These efforts highlight both the concerns of middle powers and their recognition of the opportunity to establish unique positions amid the US-China rivalry.[187] As middle powers navigate the complexities of developing and deploying AI systems, their efforts reflect both apprehension and ambition. Nations worldwide are recognizing the need for sovereign AI that embodies their unique language, culture, and aspirations. However, achieving AI sovereignty is far more challenging than it may appear. While middle powers may establish AI infrastructure, they are likely to depend heavily on US semiconductors, cloud platforms, and expertise, as well as AI foundation models originating from the US.[188]

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[184] https://www.linkedin.com/pulse/revolutionizing-diplomacy-artificial-intelligence-new-malak-6x63f/
[185] https://www.linkedin.com/pulse/revolutionizing-diplomacy-artificial-intelligence-new-malak-6x63f/
[186] https://www.ccn.com/news/technology/south-korea-ai-basic-act-joins-eu/
[187] https://www.foreignaffairs.com/united-states/real-stakes-ai-race
[188] https://www.foreignaffairs.com/united-states/real-stakes-ai-race

Coming up to Nepal´s northern neighbor, for the past two decades, China has been an integral part of the global AI research and development network—collaborating with peers abroad, hosting American corporate AI labs, and contributing to the expansion in the AI domain. Over a period of time, policymakers across the globe paid little attention to the connections and their consequences, leaving researchers, universities, and corporations to shape these relationships on their own. However, in the past couple of years, the ties between China and global networks for R&D have come under scrutiny by governments, universities, companies and civil societies.[189] As technological competition between Beijing and Washington intensified, a trend toward decoupling and deglobalization is disrupting the global links that have long supported China´s AI sector. Consequently, Beijing´s AI development strategy must contend with a weakening international interdependencies.[190] Nevertheless, according to our respondent, during the COVID era, China developed a significant volume of technology-based products that required a market for distribution. However, these products could not be sold or supplied internationally as anticipated. As such, in the current geopolitical climate, China perceives Nepal as a potential ally, a perspective reflected in the actions of both the Chinese government and Chinese private firms. As such, Nepal does not share the western apprehension against China, and has been engaging with both China and the West, including in the landscape of AI collaboration.

Coming to Nepal´s southern neighbor, India has established the New and Emerging Technologies (NEST) division[191], which acts as a nodal body within the Ministry for addressing matters related to advanced and emerging technologies. This division promotes collaboration with international partners in areas like 5G and artificial intelligence—while ensuring alignment with domestic stakeholders to support India´s developmental priorities and national security goals. Additionally, NEST evaluates the foreign policy and international legal implications of cutting-edge technologies and technology-driven resources, offering recommendations for appropriate foreign policy choices among others.[192] NEST also engages in shaping technology governance rules, standards, and frameworks within multilateral and plurilateral platforms, tailoring them to align with India´s specific contexts, needs and conditions.[193] Likewise, NEST also focuses on building Human-resource capacity within the ministry for technology diplomacy by leveraging the existing talent pool and supporting the functional specialization of foreign service officers across various technology domains.[194] The Institute for Human-Centric Artificial Intelligence ranked India fifth globally in April 2023 for investments received by start-ups developing AI-based

[189] https://www.brookings.edu/articles/can-democracies-cooperate-with-china-on-ai-research/
[190] https://merics.org/en/report/chinas-ai-development-model-era-technological-deglobalization
[191] https://www.orfonline.org/expert-speak/the-nest-a-pragmatic-addition-to-indias-external-affairs-ministry-63864
[192] https://economictimes.indiatimes.com/news/politics-and-nation/mea-sets-up-emerging-technologies-division/articleshow/73063773.cms
[193] https://economictimes.indiatimes.com/news/politics-and-nation/mea-sets-up-emerging-technologies-division/articleshow/73063773.cms
[194] https://economictimes.indiatimes.com/news/politics-and-nation/mea-sets-up-emerging-technologies-division/articleshow/73063773.cms

products and services. The report also highlighted India as a global leader in AI skills penetration. India has experienced an expansion of public discussions on AI, supported by initiatives like the AI for India forum. This platform brings together academia, think-tanks, start-ups, and large enterprises to explore the societal impact of AI and develop proactive policy strategies.[195]

As distinctly apparent, Nepal and India have strong historical, cultural, and economic ties, providing a solid basis for AI diplomacy. With open borders, a shared cultural legacy, and significant socio-economic interdependence, the two countries have long been development partners. AI diplomacy can strengthen this partnership by fostering collaboration in key areas that benefit both nations. As an emerging global leader in science and technology, India can offer significant contributions. From breakthroughs in information technology to space exploration and biotechnology, India's scientific and technical knowledge represents a vital resource for Nepal's innovation and development.[196] As such, AI diplomacy offers a framework for the two countries to create joint research agendas, collaborate on scientific initiatives, and co-develop solutions that can positively affect the lives of millions in both nations. Additionally, AI diplomacy as such offers an opportunity for Nepal and India to work together on health research, exchange data, and, and engage in capacity-building initiatives that enhance health security in both nations.[197] Furthermore, such initiatives have an immense potential towards creating cohesive regional responses on environmental challenges.

Many of our respondents share a consistent view on Nepal's evolving AI policy framework. They believe it should prioritize fostering innovation, with regulatory measures to be introduced at a later stage—after innovation and development have progressed to a certain stage. Considering the global AI race and the growing competition to innovate, they recommend that policies focus on encouraging innovation rather than curtailing it with regulation. Additionally, they emphasize the importance of assessing technical feasibility for Nepal´s AI aspirations. Furthermore, Nepal should prioritize enhancing digital literacy among its citizens, as this will likely strengthen the country's AI readiness and potential. Countries like the UAE have set up a dedicated Ministry[198] for AI, and Nepal should, at the very least, consider creating specialized departments within each

[195] https://icwa.in/pdfs/EmergingTechnologiesIndianDiplomacyweb.pdf

[196] https://government.economictimes.indiatimes.com/news/policy/science-diplomacy-building-bridges-of-innovation-and-cooperation-between-nepal-and-india/115740263

[197] https://government.economictimes.indiatimes.com/news/policy/science-diplomacy-building-bridges-of-innovation-and-cooperation-between-nepal-and-india/115740263

[198] https://ai.gov.ae/

ministry to advance and expand the scope of AI. This initiative could drive long-term solutions and deliver strategic advantages for the country's development. As such, AI diplomacy in Nepali context should focus on three key aspects: Knowledge Transfer, Coordination on Data Protection, and Promoting Innovation.

The Impact of AI on Global Geopolitics and Nepal's Strategic Challenges

The novelty of AI and the emerging geo-tech interests of powerful nations have largely shaped foreign policy, while the rise of 'techno-geopolitics' and the 'AI world order' have continuously disrupted the global order. As major countries focus on integrating AI into their foreign policy, AI and foreign policy have become closely interconnected.[199]

The securitization of technology and the rise of techno-nationalism are becoming prominent among major global powers, including Nepal´s neighbors. For instance, the US has implemented measures like the CHIPS and Science Act to restrict critical technological transfers to China, including degrees of controls considered in the field of biotechnology and AI.[200] As such, the world's advanced economies are harnessing the power of AI to gain strategic advantages that further their economic and security goals. The United States is home to corporate giants like Google, Apple, Facebook, Microsoft, and Amazon (GAFMA), which drive its technological advancements in AI. In contrast, China boasts major tech companies like Baidu, Alibaba, and Tencent (BAT), along with a thriving start-up ecosystem in Shenzhen, all competing in the AI race. Meanwhile, Nepal, as a least developed country, shows minimal progress in AI development.[201] Correspondingly, it does not have exclusive control over algorithm-driven AI platforms—dampening innovation or unintentionally fostering political biases. This makes it more challenging to grasp what people express in new media. As such, striking the right balance between safeguarding the integrity of public discourse and upholding freedom of expression remains a challenge.

Due to the limited resources and capacity, smaller economies like Nepal often lack the massive financial investments, advanced technological infrastructure, and pools of specialized talent that major economies and tech giants do have. As such, there remains challenges in core AI research

[199]Aacharya, GP. "Impact of Artificial Intelligence on New Global Order: A Nepalese Security Perspective." Unity Journal, Feb. 2024, https://www.nepjol.info/index.php/unityj/article/view/63189. Accessed 5 December 2024.
[200]Mulmi, Amish Raj. "Nepal Needs to Play Catch-up". The Kathmandu Post, 9 Dec. 2022, https://kathmandupost.com/columns/2022/12/08/nepal-needs-to-play-catch-up. Accessed 7 December 2024.

[201]Shrestha, Madhav. "Artificial intelligence: Strategic Tool in Diplomacy." The Himalayan Times, 23 Sept. 2021, https://thehimalayantimes.com/opinion/artificial-intelligence-strategic-tool-in-diplomacy. Accessed 5 December 2024.

and development in Nepal. As highlighted by our respondent, without a strategic approach, smaller countries can become reliant on AI technologies and platforms developed elsewhere. Such dependence can lead to data exploitation, loss of control over critical infrastructure, and limited opportunities for domestic innovation further echoing historical patterns of economic and technological dependence.

Both of Nepal´s neighbors approach their relationship with other countries through a "security first" lens, focusing on both conventional and non-conventional security concerns. As such, Nepal´s policy of non-alignment offers a principled framework for engagement, enabling the country to diversify its security practices without aligning with the security blocs of major powers.[202] Moreover, as a country located between two economic powerhouses of the world, differing their geopolitical capabilities in the South Asia region. And in the likely scenario where the AI big data is stored by China or India—and Nepal sought to benefit from technology transfers from either, it could disrupt the socio-political fabric of Nepali society. This disruption might stem from Nepal aligning with China´s authoritarian approach to AI deployment or India´s AI plan, each with significant implications for shaping political discourse and creating geopolitical tensions. Although there is no concrete evidence of such geopolitical influences through AI in Nepal yet, the potential for these dynamics to polarize the region´s geopolitical atmosphere remains a concern.

The major global powers with competing interests against China are working to curb its technological advancement, yet without direct confrontation. Speaking in relation to China and India, one of our respondents consistently highlighted a notable contrast. When a Nepali Robot Research Center sought collaboration with an Indian counterpart of similar nature, the Indian private organizations responded that they already had numerous global options for such partnerships. On the flip side, a similar proposal to a Chinese firm was met with enthusiasm and a welcoming gesture. These experiences suggested that collaborating with Chinese firms was relatively easier due to their eagerness to establish partnerships. Additionally, the respondent noted that there are greater opportunities for collaboration with institutions in China across national, provincial, and local levels. This process is further facilitated by China's perception of Nepal as a market for its IT and AI products, making such partnerships more accessible. This highlights the nature of Chinese and Indian B2B engagements with Nepal in the context of IT and AI collaboration—where Chinese firms tend to adopt a more open approach to South-South partnerships, while Indian firms are comparatively more reserved.

[202]The Kathmandu Post. "Experts Call for More Proactive Handling of New and Old Security Threats." The Kathmandu Post, 30 Jan. 2024, https://kathmandupost.com/national-security/2024/01/30/experts-call-for-more-proactive-handling-of-new-and-old-security-threats. Accessed 7 December 2024.

Data-informed policymaking is already a global practice. With AI now widely integrated, it enables forecasting of global trends, particularly regarding geopolitical shifts. Nepal can leverage these technologies to better understand the evolving geopolitical landscape and adjust its foreign policy strategies accordingly.

Social Media, AI, and the Future of Democratic Decision-Making

Today, the internet and social media have become the primary means of communication, reshaping the media landscape and replacing traditional journalism. AI is accelerating this shift and adding a whole new dimension to the evolving reality.[203] Social media algorithms are designed to maximize user engagement and have evolved into sophisticated systems that can significantly influence public discourse. These platforms hold considerable power in determining what content individuals are exposed to, shaping their beliefs and decision-making processes. This creates an invisible force that can subtly shape political conversations and influence decisions. Take, for example, algorithm-driven partisan content customized for specific groups based on their psychological profiles. This amplifies biases and fears, making rational and cross-ideological dialogue difficult. As such, the spread of unchecked misinformation erodes the foundation of democratic decision-making.

As AI innovation continues to advance, its widespread adoption is often delayed by the need for scrutinized global governance frameworks. In the meantime, "grey zone aggression"—that is "a threat which is difficult to define but critical to recognize" persists.[204] This includes disinformation campaigns, cyberattacks, and proxy wars, which blur the boundaries between traditional warfare and peacetime activities. Such emerging forms of conflict are pervasive, posing complex challenges for states to build the capability and creativity required to address them effectively. For Nepal, these challenges are particularly acute given its limited financial and human resources. The risks extend beyond cybersecurity vulnerabilities to include the potential for democratic backsliding, especially as political systems struggle to meet rising public expectations amplified by algorithm-driven social media echo-chambers. For instance, multinational companies developing AI solutions often overlook individual national priorities. Therefore, when application-based services enter Nepal, they should be required to meet the specific needs of the Nepali market. For instance, social media platforms like Facebook should be integrated into Nepal's digital ecosystem to contribute meaningfully to the country. Such tech

[203]Etchenique, Cimarra Nicholas. "Democracy and the Liberal World Order Amid the Rise of Authoritarianism: Leveraging the Digital Public Sphere to Revive Trust in Democracy." Belfer Centre- Harvard Kennedy School, Aug. 2023, https://www.belfercenter.org/sites/default/files/pantheon_files/files/publication/Paper_DemocracyandWorldOrder_v3.pdf. Accessed 5 December 2024.

[204] https://www.insurancebusinessmag.com/uk/news/marine/grey-zone-threats-escalate-for-some-sectors--wtw-517541.aspx

companies must register in Nepal, given their large user base, and the government should push to bring them under state regulation, ensuring accountability for their liabilities and responsibilities. Even in the absence of a physical presence, Nepal should seek mechanisms to hold these companies accountable.

Generative AI tools can produce hyper-realistic deep-fake content that spreads rapidly across social media, designed to mislead the public. The pace at which these AI-driven algorithms operate makes it challenging for fact-checkers to keep an eye and monitor. AI and simpler digital technologies can potentially be exploited to harm democracy. They can be used to manipulate individuals, steering them toward a particular ideological stance within the current or evolving geopolitical landscape. A key challenge of digital sovereignty is ensuring that cyberspace is secure for both citizens and businesses, as well as for the state.[205] In a backdrop where the AI ecosystem is increasingly influencing our daily lives, Nepal must recognize the importance of using digital technology in a way that prioritizes citizens' needs. On the bright side, AI can help eliminate negative campaigning, fake news, biased reporting, and illogical arguments. Most importantly, it can be utilized to detect fraud and corruption within the government, thereby supporting the democratic system in delivering public services more efficiently.[206]

At present, the Government of Nepal lacks clarity on how to regulate algorithms. There are growing calls to enhance digital literacy among citizens and to urge the government to create a functional cyberocracy and digital economy that benefits the entire nation, not just a few powerful individuals.[207] The concept paper on AI released by the Ministry of Communication and Information Technology is a landmark initiative that aims to establish a foundation for developing policies and regulations to address AI´s rapid global evolution. It is anticipated to guide the government in shaping rules and policies to govern emerging AI technologies.

According to our respondent, In the past, military personnel and equipment were predominantly used to directly attack adversaries or via proxy actors. In today's world, however, the weaponization of AI poses a new threat, with potential scenarios aimed at undermining rivals. Given its location between strategic competitors, Nepal must carefully evaluate and remain vigilant about the risks of AI weaponization through its cyberspace. Generative AI holds immense potential for creating and curating knowledge, however, it comes with its own set of

[205]Vacarelu, Marius. "Artificial Intelligence: To Strengthen or to Replace Traditional Diplomacy. Artificial Intelligence and Digital Diplomacy." Springer, Sept. 2021, https://www.researchgate.net/publication/354267165_Artificial_Intelligence_To_Strengthen_or_to_Replace_Traditional_Diplomacy. Accessed 5 December 2024.
[206]Shah, Pratap Bimal. "Transparency in Governance, Through Cyberocracy." The Kathmandu Post, 4 Jul. 2019, https://kathmandupost.com/columns/2019/07/04/transparency-in-governance-through-cyberocracy. Accessed 5 December 2024.
[207]Shah, Pratap Bimal. "Transparency in Governance, Through Cyberocracy." The Kathmandu Post, 4 July, 2019, https://kathmandupost.com/columns/2019/07/04/transparency-in-governance-through-cyberocracy. Accessed 5 December 2024.

challenges. While information can empower individuals, it also carries the risk of disinformation and misinformation. This makes it crucial to assess the quality of data being consumed, as it can be biased or manipulated. For example, deep fakes are particularly deceptive, underscoring the need for ethical standards to ensure data credibility. In terms of data security, the geopolitical context further complicates matters. The type of data neighboring countries consume or the outflow of data from them can influence Nepal's internal dynamics. This includes risks such as election rigging, fear-mongering during crises in neighboring regions, or disruptions in the job market among others.

Determining individual culpability in AI is complex, particularly when non-state actors amplify its impact. For example, coordinated disinformation and misinformation campaigns on bilateral issues can have significant consequences. In such cases, AI may be developed by one entity while others facilitate its spread. Ideally, accountability should be assigned based on the harm principle—meaning responsibility lies with the creator of the content. However, regulations should account not only for actual harm but also for potential threats. As our respondent put, with the advancement of AI-generated technologies, hybrid security threats have emerged as a significant challenge in today's world. These threats, which blend military and non-military tactics, have the potential to destabilize targets and disrupt societal cohesion. AI technologies, in particular, can amplify divisions in public opinion, leading to inconsistent foreign policies that ultimately weaken national unity. For example, in nations with low levels of digital and media literacy, technology companies can exploit these vulnerabilities to manipulate public sentiment. That said, Nepal primarily faces fundamental risks rather than advanced ones in the context of AI's impact. These include economic disruptions and potential threats to the fundamental principles of democracy and the socio-political fabric.

Navigating Digital Sovereignty and the Path to Sovereign AI in Nepal

According to our respondent, Nepal´s digital sovereignty and data security are highly vulnerable due to its strategic position between two economic powerhouses and emerging tech superpowers China and India. As China competes with the US in the race for technological dominance, India is rapidly establishing itself as a major player, creating a complex dynamic of tech bipolarity where China and the US are the two poles, and India is emerging as a potential third pole. This places Nepal in a sensitive techno-geopolitical location. Under these circumstances, according to our respondent, Nepal should prioritize an AI policy focused on “how to embrace AI” effectively. However, concerns may arise about the country becoming subject to control by those who develop the technology. Given Nepal´s limited resources, reliance on external support is inevitable. Despite this, the final goal should be to adopt the concept of “Sovereign AI.”

Nepal´s reliance on ICT systems and technologies developed by other countries raises concerns about their validity and trustworthiness. These technologies could potentially be exploited for

surveillance and snooping, threatening Nepal's data sovereignty. In this regard, while crafting a framework pertaining to Sovereign AI, Nepal should aim to address its unique local needs by drawing insights from global best practices in the field of sovereign AI. This approach could involve interoperability or collaboration with local and regional partners. Nevertheless, as indicated earlier, Nepal should be mindful about such partnerships which may introduce risks of manipulation, and mitigating such scenarios should be taken into account. As such, the concept of sovereign AI requires in-depth efforts to establish robust mechanisms for the control and regulation. The EU, for instance, has made progress in addressing these issues through its AI safety summits[208], providing a potential model for Nepal to consider.

Notably, the AI race has presented both opportunities and challenges for Nepal. For instance, Nepal currently relies on servers from other nations, leaving its big data vulnerable to transfer and misuse. Without a robust policy to regulate such scenarios, maintaining data security becomes a critical issue. In today's digital era, ensuring data security is as vital as safeguarding physical territorial security in the realm of national sovereignty. In the realm of national security, our respondent puts: the world today is witnessing a technology-driven shift in geopolitics, which, while echoing historical patterns, is unfolding in unique ways. In this context, Nepal must evaluate its national risks and establish priorities concerning AI. For example, the type of data Nepal contributes should be strategically aligned to strengthen its national security.

However, as our respondent put, in a resource-constrained country like Nepal, challenges such as limited digital literacy and the absence of robust legal regulations present a major challenge. Unlike regions with comprehensive frameworks like the GDPR, Nepal lacks a sound data protection mechanism. Drawing inspiration from such global practices could help address these gaps. Data security largely depends on adherence to regulatory frameworks, but digital illiteracy exacerbates vulnerabilities, particularly during data transfers. For example, due to a lack of awareness, sensitive and confidential data may be inadvertently uploaded to AI platforms, increasing the risk of breaches. Moreover, Nepal currently lacks digital forensic experts to determine accountability in such incidents.

Along similar lines, as our respondent puts it, Nepal needs to focus on skilling and reskilling its existing workforce in the IT sector. In this context, the importance of funding for computational resources becomes evident. The country also faces a significant challenge due to the lack of sufficient digitized data, as it has yet to fully digitize its own information. These issues continue to project significant obstacles. For AI development, data is regarded as a strategic resource leading to tensions over data ownership, access, and cross-border data flows. In this realm, some countries are implementing stricter data localization laws and regulations. According to our respondent, the concept of developing Nepal GPT is gaining traction, but its implementation

[208] https://www.consilium.europa.eu/en/policies/artificial-intelligence/timeline-international-summits-addressing-artificial-intelligence/#:~:text=AI%20safety%20summit%20commits%20to,safe%2C%20human%2Dcentric%20AI.

requires extensive data. In this process, data privacy becomes a critical concern. Therefore, it is essential to ensure the security of our datasets.

From a silver lining perspective, cross-border data flows can facilitate trade, investment, and innovation, contributing to economic growth and development. Moreover, it has potential to enable Nepali businesses and citizens to access global markets, services, and information. Similarly, it can also facilitate international research collaborations, scientific advancements, and knowledge sharing among others.

Sovereign AI does the codification of a nation's culture. Advanced economies of the world are establishing AI factories to imprint their unique identity on the development of artificial intelligence. In Asia, ASEAN economies are working on developing their own LLM models. As such, at the regional levels, various initiatives are underway to support AI localization efforts.[209] In Europe, Denmark is the latest country to actively invest in sovereign AI, aiming to enhance domestic research and competitiveness—it introduced its own artificial intelligence supercomputer, part of a broader effort to develop sovereign AI initiatives. These initiatives aim to code a country's culture, history, and collective intelligence, with the potential of becoming "the bedrock of modern economics".[210] Against such a backdrop, there is much work to be done between the government's recently released AI strategy paper and the drafting of the intended AI policy. As a matter of fact, AI plays a significant role in decision-making, and is often more accurate than humans, it is not infallible. For AI to make effective decisions for Nepal, it must be trained on data that reflects the country's unique culture, politics, history, foreign policy, and diplomacy. This highlights the importance of understanding where and how AI systems are trained.

According to our respondent, the challenges and concerns for digital sovereignty in Nepal include but are not limited to (i) Data Privacy and Security: the transfer of personal data across borders raises concerns about data privacy and security. On this note, Nepal needs to ensure adequate safeguards to protect its citizen´s data; (ii) Loss of Control over Data: cross-border data flows can lead to a loss of control over data generated within Nepal, potentially making the country dependent on foreign companies and governments; (iii) Jurisdictional Issues: determining jurisdiction in cases of cybercrime or data breaches involving cross-border data flow is complex (iv) Economic and Competitive Disadvantages: without clear data governance policies, Nepal could be at a disadvantage in the digital economy, with its data being exploited by foreign companies without reciprocal benefits; (v) Influence of Foreign Tech Companies: the dominance of foreign tech companies in the digital space can raise concerns about cultural influence and the potential for these companies to shape public discourse.

[209] https://www.cnbc.com/2024/12/14/southeast-asian-nations-battle-to-become-the-regions-top-ai-hub.html
[210] https://www.weforum.org/stories/2024/11/what-is-sovereign-ai-and-why-is-the-concept-so-appealing-and-fraught/

Our respondent also identifies strategies and possible policy interventions aimed at mitigating challenges and safeguarding digital sovereignty. These measures include: (i) Developing Data Protection Laws and regulations: implementing strong data protection laws that aligns with international standards, such as GDPR; (ii) Establishing Data Localization Policies (where appropriate): considering data localization requirements for sensitive data, such as personal data and government data to ensure that it is stored and processed within Nepal's borders; (iii) Negotiating Data Sharing Agreements: negotiate bilateral and multilateral data sharing agreements with other countries to ensure secure and responsible data flows; (iv) Strengthening Cybersecurity Infrastructure: investing in robust cybersecurity infrastructure to protect data stored within Nepal; (v) Promoting Domestic Digital Economy: supporting the development of a domestic digital economy to reduce reliance on foreign companies and promote local innovation; Engaging in International Discussions on Data Governance: actively participating in international discussions on data governance and cross-border data flows to ensure that Nepal´s interests are considered.

By taking these steps, Nepal can enhance its cybersecurity posture, engage effectively in international cooperation, and protect its digital sovereignty in the face of evolving cyber threats and the increasing importance of cross-border data flows.

Techno-Geopolitics and Diplomacy in Nepal's International Relations with the Role of AI

Since the 1980s, technology, particularly information technology (IT), has played a central role in shaping global affairs.[211] Modern international relations involve a combination of technology and foreign policy, where technology shapes foreign policy, and foreign policy drives the development and deployment of technology.[212] AI can influence diplomacy in two key ways: first, by altering the environment in which diplomacy is practiced, and second, by providing diplomats with new tools to assist in their work. To leverage AI effectively in diplomacy, it is essential to retrain diplomatic personnel and update diplomatic processes. The evolving landscape requires improved management and new skills, supported by the necessary structures and strategies, to navigate the AI-driven diplomatic realm.[213]

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[211]Bae, Ja Young. "Information Technology and the Empowerment of New Actors in International Relations." Journal of International and Area Studies, 2 Nov. 2003, https://s-space.snu.ac.kr/bitstream/10371/96394/1/6.Information-Technology-and-the-Empowerment-of-New-Actors-inInternational-Relations-Bae-Young-Ja1.pdf. Accessed 5 December 2024.

[212]Aacharya, GP. "Impact of Artificial Intelligence on New Global Order: A Nepalese Security Perspective." Unity Journal, Feb. 2024, https://www.nepjol.info/index.php/unityj/article/view/63189. Accessed 5 December 2024.

[213]Shrestha, Madhav. "Artificial intelligence: Strategic Tool in Diplomacy." The Himalayan Times, 23 Sept. 2021, https://thehimalayantimes.com/opinion/artificial-intelligence-strategic-tool-in-diplomacy. Accessed 5 December 2024.

In today's interconnected world, diplomacy extends beyond government-to-government interactions to include a range of actors, such as NGOs, corporations, and individuals, all of whom contribute to shaping global decision-making.[214] Certain tech companies are increasingly becoming influential players in diplomacy and the global economy, resembling the power of nation-states. Their economic and diplomatic strength is growing to such an extent that they may soon have a role similar to that of sovereign nations in international affairs. Tech giants and multinational corporations are gaining significant global influence and economic power, potentially reshaping the world order in ways previously dominated by nation-states. Companies like Apple, Google, and Microsoft are likely to challenge governance, diplomacy, and the economy in the future.[215]

The future of international security depends on how states address the challenges posed by the digital age. As a result, real collaboration between governments and transnational tech corporations, such as Google, Apple, Facebook, and Amazon (GAFA) in the US and Baidu, Alibaba, and Tencent (BAT) in China, could turn a necessity, especially given the impact of artificial intelligence in transforming diplomatic practices.[216]

Nepal's geo-digital landscape is just as vulnerable as its geopolitical situation. Whether it's a tech conflict between the US and China or a digital rivalry between India and China, Nepal's digital space is at risk. In the month of November 2024, Nepal´s Prime Minister had a brief video meeting with the SpaceX founder Elon Musk. Nepal's geopolitical sensitivity makes Starlink's entry strategically significant for the U.S. beyond commercial interests. Ongoing backdoor consultations since 2022, with U.S. diplomats' involvement, highlight Starlink's intent to reduce Nepal's reliance on Chinese tech like Huawei and ZTE, whose 5G trials face geopolitical hurdles. Starlink could counter Chinese influence, strengthen US-India ties by accessing critical infrastructure, and support intelligence gathering in sensitive Himalayan regions. Its deployment positions Nepal as a strategic gateway for US influence in South Asia, extending beyond commercial gains.[217] The key challenge for Nepal is to navigate and balance the interests of these major powers while safeguarding its own tech interests and security. Additionally, Nepal must

[214]Salman, Aneel. "How AI and Digital Diplomacy are Redefining Global Relations in Pakistan." Linkedin, 5 Sept. 2024, https://www.linkedin.com/pulse/how-ai-digital-diplomacy-redefining-global-relations-pakistan-salman-xtlaf/. Accessed 5 December 2024.
[215]Aacharya, GP. "Tech Diplomacy: Navigating Democratic and Rational Technological Future." My Republica. 23 Oct. 2021, https://myrepublica.nagariknetwork.com/news/tech-diplomacy-navigating-democratic-and-rational-technological-future. Accessed 5 December 2024.
[216]Vacarelu, Marius. "Artificial Intelligence: To Strengthen or to Replace Traditional Diplomacy. Artificial Intelligence and Digital Diplomacy." Springer, Sept. 2021, https://www.researchgate.net/publication/354267165_Artificial_Intelligence_To_Strengthen_or_to_Replace_Traditional_Diplomacy. Accessed 5 December 2024.
[217]Rana, Pranaya. "What Does Elon Musk Want from Nepal." Kalam Weekly, 29 Nov. 2024, https://kalamweekly.substack.com/p/what-does-elon-musk-want-from-nepal. Accessed 2 December 2024.

remain mindful of the rise of populism, economic crises, political instability, diplomatic maneuvering, and the competition among superpowers.[218]

According to our respondent, introducing technologies like Starlink in Nepal requires careful consideration due to likely geopolitical implications it might carry. Both of Nepal´s immediate neighbors might evoke suspicion of its adoption, fearing potential cyber threats and data breaches. In such a delicate situation, Nepal must carefully balance the techno-geopolitical rivalry of its neighbors by using diplomatic channels. In light of the fact that, military applications of AI, as seen in the hyper-war dynamics of the Russia-Ukraine conflict has further highlighted the potential security risks for Nepal, particularly if similar tensions arise between China and Taiwan (or India). Nepal's geographic and strategic position makes it vulnerable to security concerns in such scenarios. As a safeguard, Nepal must uphold its long-standing principle of non-alignment, even in the technological domain, and maintain a conscious balance in its dealings with global tech powers. As such, failure to do so could expose the nation to significant security threats.

Countries worldwide are now appointing ambassadors specifically for the tech sector, acknowledging the growing influence of Big Tech as a powerful supranational force. As Big Tech companies gain immense global influence, many governments have designated diplomats to focus exclusively on working with Silicon Valley. These 'tech ambassadors' are responsible for representing their nation's interests and serving as intermediaries between their government and tech companies. For example, they convey their country's values, and the views and concerns of citizens and government, to the global tech industry.[219]

Similarly, Nepal should actively demonstrate strong participation in various multilateral organizations to enhance its global presence and participation. Regionally, despite its strategic location and potential, Nepal has yet to secure membership in the SCO, which could provide significant opportunities for regional cooperation, particularly in technology and innovation. In a similar vein, Nepal should also push other regional apparatus like BIMSTEC and SAARC among others. Accordingly, Nepal should express clear interest in joining global and regional tech-related collaborations and initiatives.

Bangladesh has strengthened its relationship with India by initiating discussions on an economic agreement aimed at enhancing collaboration in key technology sectors, such as fintech and cybersecurity among others.[220] Likewise, given the momentum of the emerging global order and

[218]Aacharya, GP. "Impact of Artificial Intelligence on New Global Order: A Nepalese Security Perspective." Unity Journal, Feb. 2024, https://www.nepjol.info/index.php/unityj/article/view/63189. Accessed 5 December 2024.
[219]Clarke, Laurie. "Tech Ambassadors are Redefining Diplomacy for the Digital Era." Tech Monitor 30, 16 Feb. 2021, https://www.techmonitor.ai/policy/geopolitics/tech-ambassadors?cf-view&cf-closed. Accessed 3 December 2024.
[220]Reuters. "India to Start Economic Partnership Talks with Bangladesh." Reuters, 6 Sept. 2022, https://www.reuters.com/world/india/india-start-economic-partnership-talks-with-bangladesh-2022-09-06/.

geo-tech landscape, Nepal can evaluate its tech foreign policy and adopt tech diplomacy, either bilaterally or multilaterally, to address global tech and AI challenges.[221] Similarly, Nepal must take proactive steps to establish 'Data Protection Regulations' to safeguard individuals' private data. This would not only enhance citizens' personal sovereignty and dignity but also strengthen national security. Additionally, a national tech foreign policy needs to be formulated to guide the country toward a democratic and rational technological future.[222]

There is a call among the public intellectuals in Kathmandu that if Nepal wants to be recognized on the global stage, it must swiftly catch-up and modernize its approach.[223] As a transitioning economy set to graduate from LDC status in 2026, Nepal needs more than the AI strategy concept note released in July 2024. The establishment of an AI act is crucial, drawing from global best practices to foster innovation, manage risks, and promote social empowerment. By developing AI capabilities and nurturing talent, Nepal's evolving AI regulations should align with its broader development goals. AI offers a chance to transform diplomacy. AI-powered analytics can enhance foreign policy strategies, manage international negotiations, and streamline consular services. Furthermore, AI can be utilized to combat disinformation and similar challenges.[224] Nepal's AI strategies could focus on developing advanced tools to address these risks, ensuring that its diplomatic communications stay credible and reliable. Furthermore, a comprehensive digital diplomacy strategy is required, one that extends beyond public diplomacy to include essential areas such as cyber diplomacy, internet governance, and cybersecurity.

Multilateral tech diplomacy, geopolitical balancing, and techno-economic cooperation are key to fostering stronger relationships with neighboring countries and other global superpowers.[225] It needs to evaluate its tech foreign policy and promote techno-economic cooperation by initiating "better relationship" strategies with high-tech powers, including its immediate neighbors. Most importantly, Nepal should work to reduce the trust deficit with neighboring countries and other powers to strengthen its bilateral relations.[226] Given its sensitive geo-location and geo-tech environment, Nepal should appoint diplomats with strong diplomatic and technical expertise,

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[221]Aacharya, GP. "Impact of Artificial Intelligence on New Global Order: A Nepalese Security Perspective." Unity Journal, Feb. 2024, https://www.nepjol.info/index.php/unityj/article/view/63189. Accessed 5 December 2024.
[222]Aacharya, GP. "Tech Diplomacy: Navigating Democratic and Rational Technological Future." My Republica. 23 Oct. 2021, https://myrepublica.nagariknetwork.com/news/tech-diplomacy-navigating-democratic-and-rational-technological-future. Accessed 5 December 2024.
[223]Mulmi, Amih Raj. "Nepal Needs to Play Catch-up". The Kathmandu Post, 9 Dec. 2022, https://kathmandupost.com/columns/2022/12/08/nepal-needs-to-play-catch-up, Accessed 7 December 2024.
[224]Salman, Aneel. "How AI and Digital Diplomacy are Redefining Global Relations in Pakistan." Linkedin, 5 Sept. 2024, https://www.linkedin.com/pulse/how-ai-digital-diplomacy-redefining-global-relations-pakistan-salman-xtlaf/. Accessed 5 December 2024.
[225]Aacharya, GP. "Impact of Artificial Intelligence on New Global Order: A Nepalese Security Perspective." Unity Journal, Feb. 2024, https://www.nepjol.info/index.php/unityj/article/view/63189. Accessed 5 December 2024.
[226]Aacharya, GP. "Impact of Artificial Intelligence on New Global Order: A Nepalese Security Perspective." Unity Journal, Feb. 2024, https://www.nepjol.info/index.php/unityj/article/view/63189. Accessed 5 December 2024.

enabling them to engage in more confident and influential diplomatic dealings. These diplomats can help promote Nepal's national tech interests by influencing host countries. Nepal should also establish a tech cooperation framework both regionally and internationally, appointing tech envoys to specific countries to foster techno-economic cooperation, ultimately advancing its long-term economic and security goals.[227]

Tech and AI collaboration in Nepal has largely been initiated by private entities. While these efforts offer a silver lining amid challenges, they remain in their infancy. To fully realize the potential of AI collaboration, Nepal must strengthen its tech diplomacy and actively pursue more extensive collaborations with many global actors. That said, Nepal cannot engage in AI diplomacy without first establishing a foundational framework for AI education and relevant training.[228]

One respondent suggests that while Nepal has been seeking grants and concessional loans from its neighbors for infrastructure development, it should similarly prioritize requesting funding for skill and technology transfer from major global powers. Likewise, according to our informant, Nepal has strong bilateral ties with both China and India, therefore, technological transfers are feasible and could prove highly advantageous. For instance, rather than focusing on less impactful projects such as trading buffalo or building an Ayurvedic University as indicated by Indian leadership, Nepal could push for initiatives that are more aligned with its developmental needs, such as establishing wings of IIT and IIM in Nepal. Likewise, with the Chinese government supporting the development of the Madan Bhandari University of Science and Technology, Nepal could propose integrating a research lab focused on cybersecurity and AI into this project. This would not only aid in producing skilled human resources but also open avenues for further collaboration to create employment opportunities, targeting a significant share of job creation in the AI sector.

According to our informant, global standards and regulations for AI, often shaped by larger economies, can significantly impact smaller countries. They may need to adapt their own policies and legal frameworks to align with these international norms, sometimes without having had a significant voice in their creation. Despite these challenges, the rapid development of AI also presents opportunities. Smaller countries like Nepal can strategically adopt and adapt existing AI technologies to address its specific local needs and development priorities,

[227]Aacharya, GP. "Tech Diplomacy: Navigating Democratic and Rational Technological Future." My Republica. 23 Oct. 2021, https://myrepublica.nagariknetwork.com/news/tech-diplomacy-navigating-democratic-and-rational-technological-future. Accessed 5 December 2024.

[228]Shrestha, Madhav. "Artificial intelligence: Strategic Tool in Diplomacy." The Himalayan Times, 23 Sept. 2021, https://thehimalayantimes.com/opinion/artificial-intelligence-strategic-tool-in-diplomacy. Accessed 5 December 2024; The Kathmandu Post. "Nepal and Spain Forge New Collaboration in ICT and Hydrogen Technology." The Kathmandu Post, 28 June 2024, https://kathmandupost.com/science-technology/2024/06/28/nepal-and-spain-forge-new-collaboration-in-ict-and-hydrogen-technology. Accessed 4 December 2024.

potentially leapfrogging certain stages of traditional development. Furthermore, Nepal can actively participate in international research collaborations, data-sharing initiatives, and capacity-building programs. This allows access to expertise, resources, and technologies that would be difficult to develop independently. Similarly, participating in international forums and discussions on AI governance, ethics, and standards allows Nepal to contribute to shaping global norms and ensure its interests are considered.

For Nepal to offer valuable insights into foreign policy decision-making, data from various sources (news, social media, government reports) and the like may be taken into account. Such practices, if adopted, can improve situational awareness, identify emerging trends, and inform diplomatic strategies. Just as some nations use AI tools to conduct war simulations, Nepal can utilize similar technology to simulate diplomatic negotiations. This would allow for an assessment of potential scenarios and outcomes while actively engaging with negotiating parties at the table. Similarly, Nepal can harness the power of AI in the field of public diplomacy by utilizing sentiment analysis tools to understand its global perception.

Moreover, Nepal can also tap into the potential of AI in crisis response by utilizing real-time data. This approach can be particularly effective in addressing challenges related to climate change and disaster risk management. By leveraging such data, Nepal can foster negotiations and partnerships with international stakeholders to collaboratively mitigate risks that impact all parties involved.

In a similar vein, AI-powered translation tools can facilitate communication and negotiation with foreign counterparts, breaking down language barriers and enhancing better understanding. Further to that, AI-powered chatbots and virtual assistants can be used for public diplomacy and outreach, providing information about Nepal's culture, policies, and tourism opportunities to a global audience. In addition, AI can be used to analyze historical data and identify potential conflict hotspots or areas of diplomatic tension, allowing for proactive diplomatic interventions. Not to mention, AI can play a crucial role in cyber diplomacy, helping to detect and respond to cyberattacks, negotiate international cybersecurity agreements, and promote responsible state behavior in cyberspace. In addition, AI-powered systems can streamline consular services for Nepali citizens abroad, such as passport renewals, visa applications, and emergency assistance among others.

According to our informant, Nepal should advocate for greater international cooperation to bridge the AI divide between developed and developing countries. This includes promoting technology transfer, capacity building, and access to AI resources for smaller nations. Further to that, Nepal should actively participate in discussions on ethical AI development and deployment, emphasizing the importance of fairness, transparency, accountability, and human rights. In addition, Nepal should raise concerns about data exploitation and advocate for international

norms that protect data sovereignty and ensure fair data sharing practices. Not to mention, Nepal should promote international cooperation on cybersecurity, including information sharing, joint training, and the development of common standards and protocols. In addition, Nepal should highlight the potential of AI to contribute to achieving the SDGs, particularly in areas such as poverty reduction, healthcare, education, and climate change among others. Further, Nepal is a least developed country set to transition to developing status by 2026. It also ranks low on the AI readiness index. These indicators highlight the need for development agencies to support Nepal by prioritizing initiatives focused on AI development in the country.

According to our informant, major obstacles for Nepal in the realm of AI collaboration includes but not limited to: (i) Resource Disparities: differences in resources and technical expertise between Nepal and its bilateral partners can create challenges for effective cooperation; (ii) Differing Priorities: different countries may have different priorities in AI governance, which can lead to disagreements and difficulties in reaching consensus; (iii) Lack of Trust and Information Sharing: concerns about national security and data privacy can hinder trust and information sharing between countries.

Despite these obstacles, major opportunities that Nepal can harness include: (i) Technology Transfer and Capacity Building: bilateral partnerships can facilitate technology transfer, training programs, and joint research projects to help Nepal develop its AI capabilities; (ii) Joint Development of AI Solutions for Specific Challenges: Nepal can collaborate with other countries to develop AI-based solutions for shared challenges, such as disaster management, climate change adaptation, and cross-border crime among others; (iii) Harmonization of Ethical and Regulatory Frameworks: bilateral agreements can help to harmonize ethical guidelines and regulatory frameworks for AI, promoting interoperability and facilitating cross-border data flows among others.

Our sources indicate that Nepal has been participating annually in the UN's STI Forum, which focuses on the role of science, technology, and innovation in achieving sustainable development. While Nepal's influence in shaping AI-related discussions at these forums is not particularly prominent, it is still engaged in the process to some extent. As the chair of the LDC group, Nepal also takes part in various discussions on AI and other emerging technologies, including the LDC Future Forum. This platform brings together researchers, leading global development experts, and policymakers to explore ways to leverage innovation, digitalization, and technology for structural transformation and sustainable development in LDCs. These discussions also extend into the realm of the voice of the future— “terra incognita”.

One respondent suggests that Nepal should focus on three key strategies to maximize the benefits of AI through advocacy, lobbying, and collaboration with international actors. First, it should establish a watchdog to monitor AI developments across the globe, and within the region.

Second, Nepal should prioritize joining multilateral negotiations early on to shape the emerging AI landscape. Additionally, the country needs to strengthen its bureaucratic capacity to address the economic disruptions caused by AI applications across various industries. These initiatives should align with the principle of "No one should be left behind," emphasizing AI as a global public good. In its foreign policy, Nepal should frame AI adoption and innovation around the values of equity, inclusion, and vigilance toward international regimes that will impact businesses, politics, and economies worldwide. Currently, MOFA lacks the necessary interest, capacity, and policy framework to address AI effectively. As a member of the LDC and G77 groups, Nepal should leverage these multilateral coalitions to negotiate and influence global AI policy, moving away from government-centric agencies in favor of broader, multi-stakeholder collaboration.

According to our informant, Nepal, like other developing countries, should advocate for recognizing AI as a global public good and push for the establishment of AI-related multilateral treaties, similar to those addressing poverty, health, education, climate change, and other global challenges. Currently, international agreements exist to mitigate the arms race in space; likewise, there is a need for similar treaties focused on AI. As part of the developing country, Nepal primarily remains a recipient of the already developed AI ecosystem. In this context, diplomacy plays a vital role, enabling Nepal to collaborate with international communities of like-minded nations and voice its concerns for equitable geographical representation in the AI domain. Without such efforts, Nepal risks merely adopting what others have already established. Moreover, our respondent reiterates that, as a resource-constrained nation, Nepal faces significant risks if it becomes a passive user of AI. The key challenge lies in ensuring the responsible use of AI. With a growing monopoly over data, countries like Nepal are vulnerable to falling into a digital colonialism trap perpetuated by tech companies over several decades. Therefore, rather than relying solely on big data, Nepal must explore ways to democratize it—potentially via pushing regional initiatives. Nations in the Global South lack the capacity to compete with dominant AI platforms like OpenAI, making it crucial for Nepal to balance regulation and innovation effectively. By actively engaging in international and bilateral discussions on AI governance, Nepal can ensure that its interests are represented, access valuable resources and expertise, and contribute to shaping a global AI landscape that is beneficial for all.

According to our respondent, in the context of AI governance, Nepal primarily operates as a consumer of generative AI products and platforms, such as social media. As AI governance navigates a divide between the Western-led model and the China-led model, the issue is becoming a matter of techno-geopolitics. This dynamic presents a challenging scenario for Nepal, as it seeks to position itself within an AI-driven global economy. On a broader level, while the US leverages global data and China operates with centralized data, Nepal must carefully navigate these tech power dynamics. Regarding Nepal's relations with India, in the realm of promoting a culture of AI diplomacy, both countries can focus on educational exchange

programs and collaborative research initiatives to nurture scientific talent, such as AI. Scholarships, exchange programs, and joint workshops can play a key role in developing scientists and diplomats capable of addressing complex global and regional challenges.[229] As such, Nepal should work toward developing its own tech foreign policy to safeguard its interests and promote sustainable growth in the digital age. As per our respondent, Nepal should harness innovative solutions by engaging with both close and distant neighbors without aligning explicitly with either. This approach allows Nepal to strategically navigate geopolitics. Additionally, European and ASEAN countries offer innovative approaches that Nepal can benefit from. To strengthen its position globally, Nepal should ensure robust representation across diverse platforms, whether through private companies, academia, or government agencies.

229 https://government.economictimes.indiatimes.com/news/policy/science-diplomacy-building-bridges-of-innovation-and-cooperation-between-nepal-and-india/115740263

G. AI Diplomacy for Nepal

A new era of statecraft is currently dawning—one where the rapid rise of AI technologies has started warping diplomatic relationships faster than any single envoy's handshake ever could. For Nepal, a relatively small state, AI brings both high-stakes challenges and game-changing opportunities. Some of them, as highlighted by interviewees and FGD participants are outlined below:

Major Opportunities for Nepal

- **Strategic Location:** Nepal's location between China and India presents an opportunity to leverage the projects and initiatives of its neighbors20. Nepal can tap into the ripple effects of AI advancements in both countries.

- **Niche Applications:** Nepal can focus on AI applications relevant to its specific context, such as Natural Language Processing (NLP) for Nepali languages, AI for disaster risk reduction, agriculture, and cultural heritage preservation.
    - **YRP** mentions that AI can be used to predict forest fires and GLOF, using sensor networks to gather data for decision-making.

- **Learning from Others:** Nepal can learn from the experiences of other countries in developing and implementing AI, including the potential negative consequences of AI adoption.

- **Global South Leadership:** Nepal can align with the global south in advocating for equitable access to AI resources and responsible development.

- **Skilled Manpower:** Nepal can leverage its cheap labor market and offer outsourcing of AI resources and services. However, it needs to build its capacity and skill its human resources.

- **Hydropower:** Nepal can leverage its hydro-energy to power data centers, providing an environment for cooling and attracting foreign investment.

- **Early-Stage Advantage:** Nepal's early stage in AI adoption allows it to strategically plan and implement AI in a way that minimizes adverse effects while maximizing benefits.

Major Challenges

- **Limited Resources and Capacity:** Nepal lacks the financial, technological, and human capital resources needed to compete in core AI research and development.

- **Technological Dependence and Digital Colonialism:** There's a risk of becoming overly reliant on foreign AI technologies and platforms, potentially leading to data exploitation and loss of control. **DR** suggests that big tech is a form of colonialism.

- **Brain Drain:** The intense competition for AI talent makes it difficult to retain skilled professionals. **RS2** notes that even companies like Fusemachines lack senior experts due to brain drain.

- **Unequal Access to Data and Compute Power:** Limited access to large datasets and computing power hinders Nepal's ability to develop competitive AI systems.

- **Cybersecurity Vulnerabilities:** Nepal is highly vulnerable to cyber threats due to its strategic location, reliance on foreign ICT systems, and a lack of robust cybersecurity infrastructure.

- **Data Security and Sovereignty:** There are concerns about cross-border data flows, data privacy, and the potential for misuse of data32.... Data is being sold by the government without proper usage46. There are also concerns about data leaks.

- **Lack of AI Literacy:** There is a general lack of AI literacy among policymakers and government officials.

- **Policy and Regulatory Gaps:** Nepal lacks a comprehensive national AI strategy, robust legal frameworks, and specific AI regulations.
    - **RS** mentions that policies should prioritize fostering growth rather than imposing restrictive control mechanisms.

- **Ethical Concerns:** There are concerns about bias, fairness, and transparency in AI systems, as well as the potential for job displacement.

- **Geopolitical Pressures:** Nepal faces geopolitical pressures from its neighbors as well as other global actors, making it challenging to navigate AI development and cooperation.

- **Digital Divide:** Bridging the digital divide is difficult.

Key Areas for Cooperation

- **Technology Transfer and Capacity Building:** Nepal needs to seek collaborations for technology transfer, training programs, and joint research projects in AI. This includes skill transfer, training, and experience gained to benefit Nepal in multilateral forums.
    - **RS** suggests that Nepal can benefit from technology transfers from China and India, and propose initiatives like establishing Indian Institutes of Technology (IIT) or Indian Institutes of Management (IIM) in Nepal5.... He also suggests that Nepal propose integrating a research lab focused on cybersecurity and AI into the Madan Bhandari University of Science and Technology, which is being developed with the support of the Chinese government.

- **Data and Infrastructure Development:** Cooperation is needed to improve Nepal's access to satellite data, build compute infrastructure and data centers, and develop its own datasets. This includes building digital infrastructure such as reliable internet access.
    - **SB** suggests Nepal should tie up with big tech companies to create hubs of data, highlighting Nepal's competitive advantage on energy by using hydro-energy to power data centers and providing an environment for cooling.

- **Cybersecurity:** Nepal needs to actively participate in regional and international cybersecurity initiatives, collaborate on information sharing, joint training, and develop common standards and protocols.

- **Standard Setting and Governance:** Nepal should engage in international discussions to develop common standards, ethical guidelines, and governance frameworks for AI. This includes promoting interoperability and ensuring safety and security.

- **Research and Development (R&D):** There is a need for collaborative platforms, such as university-to-university and think-tank collaborations, to conduct R&D on AI.

- **Addressing Global Challenges:** Focus on collaboration to address shared challenges such as disaster management, climate change adaptation, and cross-border crime.

- **Public-Private Partnerships:** Foster collaborations between the government, private sector, and academia to share expertise, resources, and best practices.

- **Equitable Access to Resources:** Advocate for equitable access to AI resources, including datasets and open-source models.

Diplomatic Power Asymmetries

With AI capabilities exploding across the globe, power imbalances are shifting in unexpected ways. Data analysis, predictive modeling, and automated decision-making have become the shiny new currency of diplomatic influence. Nations strong in AI—think heavyweights like the U.S., China, and the EU bloc—enjoy a significant leg up in everything from intelligence gathering to resource allocation.[230]

Nepal, by comparison, may not have the same muscle to throw around in these high-tech areas—yet. But being a smaller power does not mean being powerless. One path forward is to cultivate strategic tech ties with multiple AI giants without surrendering sovereignty. Akin to walking across a tightrope, balancing across the high wire between China and India, forging bridges of mutual benefit, and ensuring knowledge flows in both directions. Doing so could position Nepal as a "bridge state," funneling AI expertise, technology transfers, and resources that bolster its own standing on the global stage.[231]

Operational Considerations

AI is not just changing the high-level dance of diplomacy; it is also revolutionizing the day-to-day tasks of embassies, foreign ministries, and crisis response units. With the right AI tools—like real-time translation apps and automated data-sifting algorithms—Nepal's diplomats could smoothly navigate a kaleidoscope of languages and cultures, expanding their influence far beyond traditional borders.[232]

- **Machine Translation & Cultural Diplomacy:**
  Imagine an AI translator that is so advanced, it feels like having a scribe who instantly deciphers the nuances of foreign languages. Diplomats can blaze through negotiations, press conferences, and bilateral meetings without a hitch, forging connections in half the time.[233]
- **Data Analysis & Crisis Management:**
  From tracking potential cyber threats to predicting natural disasters, AI can spotlight trouble before it surfaces. Swift responses save both face and resources, allowing Nepal to shine as a responsible actor in regional crisis mitigation.[234]

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[230] Pavel, B., Ke, I., Spirtas, M., Ryseff, J., Sabbag, L., Smith, G., Scholl, K., & Lumpkin, D. (2023). *AI and Geopolitics: How Might AI Affect the Rise and Fall of Nations?* RAND Corporation. https://www.rand.org/pubs/perspectives/PEA3034-1.html

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[232] *AI and the Future of Public Diplomacy*. (2023, August 22). USC Center on Public Diplomacy. https://uscpublicdiplomacy.org/blog/ai-and-future-public-diplomacy

[233] Ibid.

[234] EPIC. (2023, March 3). Artificial intelligence, diplomacy and democracy: From divergence to convergence. *Friends of Europe*.

Still, none of this comes free. Building (and maintaining) AI-powered infrastructures demands robust data centers, skilled AI engineers, and governance frameworks—resources that can be scarce. Over-reliance on foreign AI solutions might compromise Nepal's autonomy and open the doors to undue influence. The key is a phased, strategic approach—roll out the easiest wins first (like translation and basic analytics) and build capacity before moving on to more complex AI deployments.[235]

Strategic Positioning

At first glance, the global AI race might look like a showdown of giants—superpowers jockeying for position while smaller nations watch from the sidelines. But that is not the whole story. Nepal can play a proactive part in shaping the diplomatic narrative around AI by:

- **Navigating Multiple Power Blocs**
  As China ramps up its AI-driven Belt and Road ambitions, and India fine-tunes its hybrid AI model, Nepal can choose to partner with both—**without** pledging exclusive loyalty to either. Nepal, by virtue of its geographic and cultural ties, can channel these offerings to its own advantage.[236]
- **Developing Targeted AI Capabilities**
  Nepal does not need to out-engineer Silicon Valley or out-spend Beijing on next-gen semiconductors to be a player in AI diplomacy. Instead, it can focus on specific areas like **cultural diplomacy**, **trade negotiations**, and **regional cooperation**—domains where even a modest AI investment can produce meaningful leverage.[237]
- **International AI Governance Frameworks**
  Nepal should step onto the global stage as a champion of equitable AI rules. By throwing its weight behind international protocols—on data sharing, privacy safeguards, or algorithmic transparency—Nepal can ensure that future norms do not leave smaller nations in the dust. Being a voice for ethics and inclusion also garners major diplomatic capital, opening doors for alliances with other like-minded states.[238]

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https://www.friendsofeurope.org/insights/artificial-intelligence-diplomacy-and-democracy-from-divergence-to-convergence/

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Stepping Into Tomorrow's Diplomatic Landscape

AI is reshaping the very DNA of diplomacy, demanding both agility and foresight. For Nepal to keep pace (and potentially come out ahead), it needs more than just cutting-edge tech. It needs unwavering strategic vision, savvy negotiation skills, and enough creative daring to carve a singular path.

- **Stay Flexible, Stay Autonomous**
  Nepal's position between giants offers a unique vantage point—but it also requires delicate footwork. Maintaining autonomy is vital. Dancing with larger powers' interests without getting tangled in their webs is a challenge fit for a cunning strategist.[239]
- **Amplify Diplomatic Influence via Tech**
  Targeted AI projects in areas like humanitarian aid coordination or cultural outreach can extend Nepal's soft power. When well-publicized successes demonstrate Nepal's tech-savvy leadership, its diplomatic stock rises in the region and beyond.[240]
- **Lead by Example**
  Ethical and inclusive AI is not just a tagline—it is a compass. Nepal can stand out as a moral beacon in this era of AI hype, insisting that technology serve humanity, not the other way around. This stance will resonate with many other developing nations seeking a champion of responsible innovation.[241]

Armed with the right blend of strategic vision, alliances, and ethical resolve, Nepal can harness AI to protect its interests, advance its influence, and champion equitable governance, potentially playing a role in inspiring smaller nations to also rise and shape the digital future on their own terms.

The Great AI Race and Nepal's Diplomatic Positioning

A tempest is brewing in the global tech arena—a high-stakes race where the United States and China jockey for AI supremacy, rolling out advancements faster than regulations can catch up. And while this high-tech duel might feel like a showdown between two unstoppable titans, smaller nations like Nepal find themselves caught in the crosswinds of opportunity and peril.

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[239] *DIPLOMACY OF SMALL STATES: Trends in 2024*. (n.d.). Retrieved 31 January 2025, from https://www.diplomacy.edu/topics/diplomacy-of-small-states/
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Power Dynamics and Dependencies

From semiconductor embargoes to crackdowns on knowledge transfer, the U.S. and China are throwing up barriers that could lock out nations lacking their own robust AI infrastructures. This means tough choices for Nepal:

- **Semiconductor Restrictions**: Need a cutting-edge AI chip? Well, the new export rules might make that chip difficult to get. Nepal must navigate these obstacles by exploring alternate supply lines, maybe via third-party partnerships—or risk getting stuck using outdated hardware.[242]
- **Quantum Leap**: Meanwhile, quantum computing is charging onto the global stage, shaping up as the next big technological leap. One day, quantum machines may make classical supercomputers look downright puny. For Nepal, this tech could be a rocket boost—if it can snag a seat at the table. Otherwise, the risk is getting locked out of next-gen breakthroughs.[243]

By keeping diplomatic channels open with both American and Chinese quantum hubs, Nepal can potentially get a slice of that quantum pie. The challenge, of course, is making sure the quest for advanced tech does not come at the cost of national sovereignty.

Strategic Positioning Options

Nepal does have a few strategic options despite its predicament.

- **Targeted Talent Cultivation**
  For example, an Elite AI academy that welcomes savvy experts from Silicon Valley **and** Beijing. By enticing top global AI researchers to help train domestic talent, Nepal can raise an army of homegrown developers and data scientists. The goal? Building local capacity so Nepal does not have to rely on foreign talent every time it needs new algorithms.
- **Strategic Infrastructure Partnerships**
  If data centers are the citadels of the digital realm, who is building yours? Nepal should secure partnerships with tech powerhouses—whether Chinese, Western, or even regional players—while insisting on owning the drawbridge and the keys. Collaboration is great but never yield total control over your domain's core.
- **Quantum Engagement**
  Quantum computing might sound like sci-fi, but the race is on. Nepal cannot afford to ignore quantum developments, or it risks being left in the digital dust. By forging alliances with research labs worldwide and pushing for interoperable standards, Nepal can keep the door open for quantum-enabled AI once it is ready to unleash its disruptive prowess.

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[242] *Biden's administration proposes new rules on exporting AI chips, provoking an industry pushback*. (2025, January 13). AP News. https://apnews.com/article/biden-ai-artificial-intelligence-chips-computer-trade-4495b5b4a48e856dc612e7abe3e47d20

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By threading this needle—befriending both U.S. and Chinese AI ecosystems while guarding its autonomy—Nepal carves a unique path through the Great AI Race.

Military and Security Implications

Here is the grim side of AI: advanced militaries around the globe are experimenting with AI-powered drones, lethal autonomous weapons, and next-level surveillance. When two superpowers tussle, smaller countries can become the testing ground for experimental tech or worse, the collateral damage of a digital proxy war.

- **Defensive Arsenal**
  Nepal needs a robust shield—AI-based cyber defenses that detect and neutralize threats before they crash the gate. This means investing in secure networks, training cybersecurity warriors, and forging alliances with friendly nations to share intel on emerging dangers.
- **Active Neutrality**
  In the swirling maelstrom of great power showdowns, neutrality is not just about staying out of trouble—it is about **actively** steering clear of weaponized AI deals that might undermine regional stability. Nepal can push for international frameworks that set the rules of engagement for AI-driven military tech, giving smaller nations a seat at the negotiating table.

Recommendations

- **Comprehensive National AI Strategy**
  Nepal should craft a wide-ranging roadmap that charts how to build domestic AI prowess, form strategic alliances, and tiptoe around the minefield of great power rivalry. If done right, this strategy can amplify Nepal's voice on the world stage, even in the face of giants.
- **Dual Engagement with Competing AI Hubs**
  By partnering with U.S. labs for advanced R&D *and* collaborating with Chinese firms for practical deployments, Nepal can keep its options open. It is a balancing act, but the payoff is a pipeline of cutting-edge insights and resources—minus the strings that come from relying on just one provider.
- **Quantum Proactivity**
  Do not wait for quantum to barge in and flip the chessboard. Nepal must proactively dip its toes into quantum ecosystems (U.S., China, even the EU, or regional alliances) to ensure it can plug-and-play once quantum solutions become mainstream. Secure those partnerships **now**, before the gates slam shut.
- **AI Defense & Advocacy**
  Build local defenses that can counter AI-driven espionage, sabotage, or militarized chaos. Simultaneously, champion global norms that treat smaller nations with respect and fairness. Nepal should be bold enough to directly **call out** major powers if they are barreling ahead without care for global repercussions.

Nepal stands to gain more than just innovative technology—it could shape a future where smaller nations do not merely watch from the sidelines but help contribute to global AI and technological policy. It will take grit, strategic cunning, and a fortune, but the rewards are immense. By striking a careful balance between partnerships and sovereignty, diving headfirst into emerging tech like quantum computing, and defending itself against AI-fueled military threats, Nepal can turn the Great AI Race from a looming challenge into a game-changing opportunity.

H. Conclusion and Recommendations

Artificial Intelligence has been transforming most domains of society at an incredible pace and degree. Due to its consequences on society, economics, and politics–areas that determine states' power and image projection–the stakes are so high that it has triggered a global AI race, with the US and China leading two competitive blocks or ecosystems of AI development and regulation. Countries caught in the middle of this ever-intensifying competition have had to face the difficult task of successfully navigating the geopolitical complexities surrounding AI. They cannot simply opt out of the AI game because the opportunities and challenges associated are simply too great to ignore.

For a developing country like Nepal, AI technologies offer huge opportunities as well as challenges concerning their application in diplomatic engagements and policy-making. The rapid evolution of AI across the globe is bound to play a crucial role in advancing Nepal's international position, catalyzing economic growth, and addressing some of the most pressing domestic concerns on governance, climate resilience and social inclusion among others. Nevertheless, the integration of AI into diplomatic processes requires careful consideration of Nepal´s history, society, culture, politics and availability of resources among others.

AI has the potential to change how Nepal interacts with the rest of the world. Harnessing AI in data analytics, decision-making, and delivering public services empowers Nepal by adopting global best practices for informed decision making in diplomatic negotiations at various bilateral and multilateral forums. AI-driven tools can enhance Nepal's potential to track and interpret international challenges in politics, economy, and other conventional and non-conventional risks. However, there are also many diplomatic challenges with the adoption of AI. With a relatively weak public digital infrastructure, Nepal is unlikely to stand on an equal footing with advanced economies in terms of the development and application of AI. In addition, issues related to data sovereignty, privacy, and misuse for surveillance or security purposes further exacerbate the situation. However, these challenges can be addressed through robust AI diplomacy that prioritizes AI innovation and capacity-building, while ensuring ethical and responsible AI adoption through multilateral AI governance.

Recommendations for Nepal's AI Diplomacy

- **Develop a National AI Strategy:** Create a clear national AI strategy with defined goals, ethical considerations, and public-private partnerships.

- **Prioritize International Cooperation:** Actively participate in international collaborations for research, data sharing, and capacity building.

- **Focus on Niche Areas:** Instead of broad competition, focus on AI applications relevant to Nepal's context.

- **Invest in Education and Skills:** Prioritize education and training in STEM fields, data science, and AI-related skills to build a domestic talent pool.

- **Strengthen Cybersecurity:** Develop a national cybersecurity strategy and legal framework, and engage in international cooperation.

- **Promote Data Protection:** Implement strong data protection laws aligned with international standards.

- **Engage in Global Governance Discussions:** Actively participate in international discussions on AI governance and ethics.

- **Develop Tech Diplomacy:** Deploy tech diplomats to key regions to enhance technological and economic ties.

- **Build Digital Infrastructure:** Invest in reliable internet access, data centers, and other digital infrastructure.

- **Promote Responsible AI:** Emphasize ethical principles in AI development and deployment.

- **Attract Targeted Investment:** Create an environment to attract targeted foreign investment in specific AI areas aligned with national priorities.

- **Engage in Multilateral Forums:** Utilize multilateral forums such as the UN, G77, and LDC to raise AI-related issues and advocate for Nepal's interests.

- **Bilateral Agreements**: Seek bilateral agreements to harmonize ethical guidelines and regulatory frameworks for AI and facilitate cross-border data flows.

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