



NEPAL NATIONAL SUMMIT ON

Artificial Intelligence 2024

SUMMIT REPORT

Harnessing the Potential of AI:
Its Impact on Media, Public Service, and Governance

Digital Media
FOUNDATION

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National Summit on Artificial Intelligence -2024

Harnessing the Potential of AI: Its Impact on Media, Public Service, and Governance

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The Nepal National Summit on Artificial Intelligence, themed “Harnessing the Potential of AI: Its Impact on Media, Public Service, and Governance,” was successfully held on June 15, 2024. The event was attended by participants from across the country, including sectoral and technical experts, policymakers, representatives of political parties, public and private service providers, researchers, and members of the general public. Together, the participants engaged in insightful discussions on critical contemporary issues of Artificial Intelligence in Nepal’s national context.

The summit was organized by the *Digital Media Foundation* in collaboration with the *Internet Society Nepal Chapter* (registered as *Open Internet Nepal*), with strategic partnerships from the *UNESCO Office* in Kathmandu and *Digital Rights Nepal*. The one-day event, attended by over 250 participants, took place at Hotel Himalaya, Lalitpur. It featured special speaker addresses, an opening and closing session, and three primary panels:

1. The Future of Media: AI Innovations in Global and Local Contexts
2. AI Integration in Nepal’s Public Service: Potential and Pitfalls
3. Governing AI and Emerging Techs: Nepal’s Position and Pathways



OPENING CEREMONY

The summit commenced with an innovative approach. Mr. Prabesh Subedi, chair of the opening ceremony, instructed *ChatGPT* to deliver a welcome speech to all participants and guests. This was followed by an AI-generated welcome video featuring a young person resembling a television host. The AI-generated host presented the outline of the event to all participants, creating an exciting atmosphere.

The keynote speaker of the event, Dr. Bibek Paudel, AI scientist at *Stanford AI Lab*, highlighted various aspects of AI in the contemporary context. He emphasized on the fact that the majority of the world is currently at the pioneering stage in the development of emerging technologies. Dr. Paudel suggested that Nepal could leverage this situation by being an early adopter, emphasizing that the country had missed similar opportunities with previous emerging technologies such as the Internet.

Dr. Paudel further outlined that being an early adopter in such technologies not only presents significant opportunities, but it also comes with challenges. Dr. Paudel particularly mentioned challenging issues like deepfakes and concerns about the diversity of data used to train AI models.

'AI technologies often consume electricity on a large scale, and Nepal, with its abundant hydropower potential, is well-positioned to produce sustainable green energy. This could be a main area where we could focus our involvement in AI development,' Dr. Paudel added. He further mentioned, 'if we act now, we won't be too late to leverage this emerging technology that offers numerous opportunities'.

Linking the use of AI in governance and public services, he mentioned that the country could immediately leverage these technologies for budget monitoring, monsoon prediction and efficient energy management. He further emphasized that data is the fuel for AI and most importantly diversity of data is very crucial to avoid societal polarization and hates. We can leverage this technology to promote good governance and it has various other uses in agriculture, prediction of natural disaster and health care assistance. He stressed the urgency of action: 'If we want to seize this opportunity, we must act now by implementing proper policies. Waiting too long might cause us to miss out on the benefits of this technological revolution.'

Hon. Finance Minister, the government of Nepal, Mr. Barshaman Pun formally Inaugurated the summit. In his address, Minister Pun emphasized the government's commitment to policy stability and infrastructure development in the information technology (IT) sector. He also outlined the government's ambitious plans for the upcoming fiscal year (2081/82). These plans include a decade-long investment strategy for the IT sector, with projections to generate NRs 30 trillion from offshore or IT services exports. The plan aims to create 1.5 million IT-related jobs within Nepal over the next 10 years. This vision underscores the government's recognition of IT as a key driver for Nepal's economic growth and employment opportunities. He further committed to maintain tax policies that will be stable for at least next five years, and establish at least 10 IT parks in Kathmandu Valley, and build IT parks in each province which will be open to instigate new IT startups.

Minister Pun also expressed the development of AI as both a challenge and an opportunity as a tool for the next phase of the industrial revolution, also often called the 5th industrial revolution. He also shared that many countries were able to benefit from the development of the Internet in the 1990s and we are now in a similar phase. If we could leverage this technology we can be at the forefront of its benefits for both societal and economic progress.

‘He concluded his remarks underscoring the necessity of leveraging technology for improving human life and ensuring we do not lag in economic and technological progress. He emphasized the potential for Nepal to close the gap with more advanced countries through AI, supported by strong policies and infrastructures.

Mr. Subedi, founder of *Digital Media Foundation* and the chair of the opening ceremony, reflected on Nepal's early engagement with internet technologies. He noted that Nepal launched *Nepalnews.com* (formerly *South-asia.com*) shortly after India's first online platform, demonstrating an initial willingness to embrace digital innovation. However, Subedi pointed out that due to sluggish policy implementation and governance mechanisms, Nepal eventually fell behind in the digital revolution.

Mr. Subedi urged the government to prioritize technological advancements to avoid repeating this historical lag. He emphasized the critical need for a qualitative transformation in the communication sector, stressing that this was essential to combat unprofessionalism and ensure that Nepal keeps pace with global digital trends.





Panel

THE FUTURE OF MEDIA: AI INNOVATIONS IN GLOBAL AND LOCAL CONTEXTS

Panelists

1. Dr. Bhanu Bhakta Acharya, Department of Communication, University of Ottawa, Canada
2. Mr. Shiva Gaule, Chief- Editor, Onlinekhabar.com
3. Pro. Dr. Sudan Jha, Department of Computer Science and Engineering, Kathmandu University
4. Mr. Umesh Shrestha, founder, mysansar.com (Moderator)

The first panel discussion featured the distinguished guests with their premier background on newsroom and media academics. During this discussion various aspects of journalism, communication and digital divide were discussed. The discussion was further directed towards AI-mediated journalism from local practices in Nepal to global practices being led by global news rooms such as *The New York Times*.

The deliberations were focused on the practical aspects of AI in media, such as editorial processes, ethical considerations, and critical thinking. Some of the examples of leveraging AI in media such as creation of AI-generated content, automated news writing, and image generation.

Similarly the benefits of using AI tools in media such as the ability to summarize and analyze vast amounts of information promptly.

Apart from the opportunities, the discussions were further stressed on the ethical discourse around AI in media, including accountability and verification of AI-generated content, biases in AI algorithms and models and the importance of human oversight were highlighted. Similarly it went on conclusion with the benefits of automating certain processes, time-saving benefits but the ability of AI to perform critical thinking and problem-solving need an editorial verification. Similarly the importance of awareness and education about AI among media professionals to ensure its effective and ethical use and to integrate the technological advancements responsibly.

Mr. Shiva Gaunle shared his hands-on experiences of newsroom, noting issues such as the contextualization and localization of AI, the current datasets do not actually reflect the Nepali context. He further mentioned that Nepali newsrooms are still not widely adapting the use of AI. But he acknowledged AI's potential to enhance journalists' competitive capabilities.

Dr. Bhanubhakta Acharya observed that AI understanding and usage among Nepali users, including those in newsrooms, remains limited. He urged journalists to continuously enhance their skills to address the job challenges posed by the increasing use of AI. While highlighting AI's positive aspects, such as its potential role in information verification and headline suggestion, Dr. Acharya also emphasized the need to develop AI platforms tailored to the Nepali context.

Dr. Sudan Jha shared about the positive changes brought by AI, such as, it has made content analysis and comparative studies easier and faster. He stressed on the potential risks of bias in AI-based content delivery and provided insights into efforts in natural language processing in Nepal. "AI ecosystems should be fed with sufficient data that reflects our local context and diversity to ensure more quality and contextual output,".

Dr. Acharya highlighted various trends and practices in using AI tools in newsrooms across different countries. He noted that concerns about ethics and professionalism are rising alongside the adoption of these tools.

While it seems fully acceptable to use AI to produce certain types of content, such as weather information, Dr. Acharya stressed that regular news content demands human involvement. He emphasized that at least one biological person should be accountable for such content.

"Existing AI tools can significantly save time, effort, and costs in conducting editorial works. While editorial guidelines remain the most critical component in maintaining ethics and professionalism, there must be a clear understanding of what should and should not be done. We must encourage every Nepali newsroom to adopt these technologies" Dr. Acharya emphasized. Mr. Gaunle also agreed on the need for clear editorial policies and guidelines considering the growing use of machine generated content.

Addressing concerns that AI could surpass human capabilities in various areas, Dr. Acharya reassured that these technologies will not completely replace human abilities. He pointed out that similar fears and hype have accompanied past technological transitions. "As with social media today, there are both positive and challenging impacts. It is our responsibility to use the power of these technologies wisely," he remarked. Mr. Gaunle added that because journalism requires a high degree of human judgment and contextual understanding, AI cannot replace these roles but can serve as a valuable assistive tool.

Critically evaluating the present trend of content priorities and trends, Dr. Jha emphasized, "When deploying recommendation systems for media content distribution, the number of visits and impressions should not be the sole deciding factor in maintaining quality journalism. Instead, other methods should be employed to promote quality and uphold the reputation that the journalism industry has long maintained."

Concluding points from the panel

1. Adoption and Awareness in Nepali Newsrooms:

- Nepali newsrooms are still in the early stages of adopting AI technologies, with limited understanding and usage among media professionals.
- There is a need for increased awareness and education about AI to ensure its effective and responsible use in journalism.

2. Integration of AI in Journalism:

- AI has the potential to enhance various aspects of journalism, from content creation to editorial processes, by saving time, effort, and costs.
- AI tools can assist in generating content, automating news writing, and producing images, providing valuable support to journalists.

3. Ethical Considerations and Editorial Integrity:

- The ethical implications of AI in media were a central concern, emphasizing the need for accountability, verification, and human oversight in AI-generated content.
- Clear editorial guidelines are essential to maintain ethics and professionalism, particularly with the increasing use of AI in newsrooms.

4. Importance of Contextualization:

- Current datasets often fail to represent the Nepali context accurately, which can lead to misalignment.
- AI systems must be trained with data that reflects Nepal's local contexts and diversity to ensure relevant and high-quality output.

5. Challenges and Limitations of AI:

- AI, while useful for many tasks, cannot replace the human abilities of judgment and critical thinking, which are vital in journalism.
- The discussion highlighted the limitations of AI in performing tasks that require contextual understanding and ethical decision-making.

6. The Role of AI in Enhancing Journalism:

- AI can play a significant role in improving the efficiency of journalists by enabling faster content analysis, comparative studies, and information verification.

- Despite its benefits, AI should be seen as an assistive tool rather than a replacement for human judgment and expertise in journalism.

7. Recommendation Systems and Quality Journalism:

- The panel cautioned against relying solely on metrics like visits and impressions when deploying AI-driven recommendation systems, as this could compromise the quality of journalism.
- Alternative methods should be employed to uphold the reputation and standards of the journalism industry.

8. Future of AI in Journalism:

- As AI continues to evolve, it is crucial to develop AI platforms tailored to the specific needs and contexts of local media, particularly in Nepal.
- The discussion underscored the importance of human involvement in content production, particularly for regular news content, to ensure accountability and maintain trust.





Panel

AI INTEGRATION IN NEPAL'S PUBLIC SERVICE: POTENTIAL AND PITFALLS

Panelists

1. Mr. Kshitiz Rimal, Data Scientist, Next AI
2. Mr. Nagesh Badu, IT & e-governance specialist, PLGSP/MoFAGA
3. Mr. Bikram Shrestha, Head of Digital Banking, Sanima Bank Limited
4. Mr. Santosh Sigdel, Digital Rights Nepal (Moderator)

The second panel began with a focus on Nepal's current stance on adapting and integrating AI technologies, particularly in the public services sector. Mr. Nagesh Badu opened with an optimistic view, noting that the government has taken some progressive steps to support the emerging tech ecosystem. He referred to ongoing policy and regulatory reforms, such as the Information Technology and Cyber Security Bill and the AI Concept Paper.

Mr. Badu emphasized that the government envisions incorporating critical technologies to boost the economy and create job opportunities. He further explained that the AI Concept Paper, prepared by *the Ministry of Communication and Information Technology*, addresses the issues and concerns posed by AI and offers a roadmap for the future. "At least for now," he added, "we can consider these steps as laying the groundwork for further progress."

Another panel member, Mr. Kshitiz Rimal, argued that Nepal's public service sector has not kept pace with the opportunities that today's technology presents, citing a lack of structural preparedness and technical capability within government bodies. He pointed out a noticeable gap between the proactive private sector and the less responsive public sector.

Mr. Rimal emphasized the need for technical skills and quality education to make AI-driven services more widely accessible. He also stressed the importance of identifying challenges and understanding their solutions to overcome the barriers to AI adoption in public services. Additionally, he suggested a collaborative approach involving the government, universities, private sector, and civil society to leverage AI initiatives in the public sector.

Representing the financial sector, Mr. Bikram Shrestha acknowledged the slow progress in AI development and implementation in Nepal, noting that even the few successful applications, such as chatbots in banking and other public sectors, are still in the experimental stage. He observed that some innovative steps are being driven by the private sector, but overall advancement remains limited.

Mr. Shrestha highlighted that the COVID-19 pandemic was a turning point where some AI potentials were explored. However, a clear and supportive stance from the government to foster an innovative environment is still lacking. He further emphasized the need for proactive government policies to support AI development, warning that mishandling AI could lead to significant setbacks.

Mr. Badu noted that digital information systems for demographic data, health, education, budgetary allocations, and other services are already established at the local government level, serving as the initial point of contact for citizens. However, he emphasized that these platforms and the way data is utilized are still at a very basic level, which is inadequate for the effective application of AI. He stressed the need for government prioritization and structural reforms to enhance these systems.

During the discussion, the audience raised questions about the potential application of AI in existing government digital platforms like "Hello Sarkar" and "Nagarik App."

Concerns were also expressed regarding the privacy of personal data used in these platforms and future AI applications. In response, the panelists underscored the importance of implementing comprehensive data protection policies and measures. They also stressed the need for proactive government regulation, capacity building to integrate AI effectively into public services, and the incorporation of AI into education and curricula to develop a future workforce capable of leveraging AI for public service improvements.

Concluding the discussion, panel moderator Mr. Santosh Sigdel highlighted the current availability and the need for content (data) in local languages. He further emphasized the importance of a collaborative regulatory approach involving both government and private sectors.

Concluding points from the panel

1. Government Initiatives and Foundations:

- The Government of Nepal has initiated some progressive steps towards integrating AI in public services, including policy reforms like the Information Technology and Cyber Security Bill and the AI Concept Paper.

2. Challenges in Public Sector Readiness:

- Nepal's public service sector lags behind in adapting to AI opportunities due to a lack of structural preparedness and technical capabilities within government bodies.
- There is a significant gap between the proactive private sector and the slower-moving public sector.

3. Need for Technical Skills and Education:

- There is a critical need for technical skills and quality education to make AI-driven services more accessible.
- Collaborative efforts involving the government, universities, private sector, and civil society are essential to build the necessary infrastructure and expertise.

4. Slow Progress in AI Implementation:

- Despite some innovative steps, the progress of AI development and implementation in Nepal, particularly in the public sector, remains slow.
- Successful applications, such as chatbots in banking, are still in the experimental stage, highlighting the need for more substantial advancements.

5. Digitization and Information Systems:

- Digital information systems for demographic data collection, health, education, and other services at the local government level are currently at a basic level.
- Significant structural reforms and government prioritization are required to enhance these systems for effective AI application.

6. Privacy and Data Protection Concerns:

- Concerns about the privacy of personal data in government digital platforms and future AI applications were raised.
- The panel emphasized the need for comprehensive data protection policies and proactive government regulation to address these concerns.

7. Collaborative Regulatory Approach:

- A collaborative regulatory approach involving both government and the private sector is necessary to effectively integrate AI into public services.
- The availability and use of content in local languages should be prioritized to ensure inclusivity and effectiveness in AI applications.





Panel

GOVERNING AI AND EMERGING TECHS: NEPAL'S POSITION AND PATHWAYS

Panelists

1. Hon. Ms. Sobita Gautam, Member of the Federal Parliament of Nepal
2. Mr. Rewati Sapkota, Registrar, Office of the Communication Registrar, Bagmati Province
3. Dr. Pradip Paudyal, Deputy Director, Nepal Telecom Authority
4. Ms. Aakriti Kharel, Digital Media Specialist, UNESCO Kathmandu
5. Mr. Ashirwad Tripathy, Vice-chair, Asia Pacific Regional Internet Governance Forum (Moderator)

This panel was focused on exploring the current state of affairs, potential applications, and essential regulatory frameworks for governing AI and other emerging technologies within Nepal's national context.

Hon. Ms. Sobita Gautam began by outlining the potential benefits of AI across various sectors, emphasizing its ability to simplify complex mathematical tasks and enhance data analysis.

However, she also acknowledged the risks of misuse and the critical need for legal frameworks. She highlighted the existing lack of sensitivity and responsibility, particularly in technology-related matters, and underscored the importance of parliamentary accountability and proactive policy development in relation to AI and emerging technologies. Additionally, she advocated for ethical AI use, encouraging self-regulation among users to prevent misuse.

During the discussion, Dr. Pradeep Paudyal stressed the importance of addressing the innovation divide rather than merely the digital divide. He raised concerns about technological colonization and emphasized the need for a holistic approach to data creation and usage. Dr. Paudyal expressed disappointment over the absence of clear policies and regulations concerning AI, noting that little progress had been made beyond theoretical agreements and drafted information technology related bills since 2015.

Dr. Paudyal emphasized the necessity of a comprehensive ecosystem for AI implementation, citing the scarcity of data and skilled professionals in the field. He also warned that overregulation could stifle innovation, advocating for balanced cybersecurity and data protection laws. Furthermore, he further highlighted the need for laws and AI models that are relevant to Nepal's context and stressed the importance of collaborative efforts and strategic alignment across sectors.

Ms. Aakriti Kharel addressed AI bias and stressed the importance of prioritizing women in science and computer education. She advocated for policies that consider human rights and suggested referencing *UNESCO's* AI frameworks when drafting national legislation related to AI. She also mentioned UNESCO's readiness to assist countries that lack the necessary resources and infrastructure for AI development.

Mr. Rewati Prasad Sapkota emphasized the need to leverage AI and other emerging technologies to make public services more accessible to the general public. He highlighted the recent efforts in Bagmati Province, where Tamang and Newari are announced as official languages in government offices, asserting that AI could play a crucial role in the practical implementation of such policies.

Mr. Sapkota stressed the importance of establishing legal frameworks, developing trained human resources, enhancing ICT infrastructure, and implementing robust cybersecurity measures to ensure the uninterrupted delivery of public services through emerging technologies. He also pointed out the challenges in coordination between provincial and federal levels, underscoring the need for comprehensive laws and collaboration to improve data and digital cooperation.

Participants in the discussion raised voices for the creation of a dedicated AI commission and emphasized the need for proactive government roles in regulation, coordination, and public education on AI. They advocated the importance of considering human rights in AI policy-making and called for international cooperation and support in developing ethical AI frameworks. Additionally, participants highlighted the urgent need for strong cybersecurity and data protection laws to foster innovation while safeguarding against misuse.



Concluding points from the panel

1. Governance Frameworks

- There is an urgent need for comprehensive legal frameworks and ethical guidelines to govern AI and emerging technologies in Nepal.
- Parliamentary proactive policy development are critical to ensuring responsible and ethical AI use.

2. Innovation Divide:

- Addressing the innovation divide, rather than just the digital divide, to prevent technological colonization is important.
- A holistic approach to data creation and usage, along with balanced cybersecurity and data protection laws, was deemed necessary to foster innovation without stifling progress.

3. Bias and Inclusivity:

- Addressing AI bias and prioritizing inclusivity, particularly for women in science and computer education should be a priority.
- The discussion called for policies that place human rights at the center and recommended referencing *UNESCO's* AI frameworks in both national and local legislation.
- AI's potential to enhance the accessibility, inclusivity and delivery of public services was acknowledged, particularly in implementing policies like language recognition in government offices.

4. AI Commission or AI Center of Excellence:

- There should be a dedicated AI commission or AI Center of Excellence (CoE) in order to lead and maintain proactive government roles in regulation and coordination.



CLOSING CEREMONY

The closing ceremony featured two distinguished speakers: Mr. Dipesh Bista, CEO of the *E-Governance Commission* of Nepal, and Mr. Michael Croft, Country Representative of the *UNESCO* Office in Kathmandu.

Mr. Dipesh Bista's remarks focused on the importance and challenges of data collation and management in the context of Artificial Intelligence and its governance in Nepal. He emphasized the need for clarity regarding data collection and security, noting that there is currently no data protection authority to ensure the safe storage, transfer, updating, and deletion of personal data. He also highlighted the need for proper regulations governing data storage, usage, and disposal.

Evaluating the current information systems where multiple entities hold the same data, leading to inefficiencies, Mr. Bista highlighted an ongoing *E-governance Commission's* project, the e-governance blueprint. This project prioritizes the concept of collecting citizens' data only once and then making it shareable among various entities. He argued that this approach would eliminate the need for citizens to repeatedly provide the same information to different agencies and would enhance data security. "We also need clear regulations on who can access, update, or erase data," he stressed.

Mr. Bista concluded his remarks by emphasizing the broader impact of digital governance on public service delivery and its implications also for the private and civil sectors. He urged international organizations like *UNESCO* to assist in standardizing and managing data where the government lacks experience and resources, advocating for a harmonized data management approach to support AI applications.

Mr. Michael Croft emphasized the need for ethical implementation of AI, adhering to the principles of the rule of law, human-centered development, and avoiding the manipulation of cognitive biases. He highlighted the importance of practical tools like the Readiness Assessment Methodology (RAM), which provides a diagnostic process to help countries understand their AI readiness and address priorities and gaps.

Mr. Croft underscored the urgency of initiating the RAM in Nepal to gain a clear picture of the AI landscape, promote international collaboration, and avoid the pitfalls of unregulated tech development seen with social media platforms.

Mr. Croft also warned that AI could amplify societal issues like hate speech and misinformation and called for resilient and controlled AI development. He advocated for the creation of sovereign Nepali AI models that reflect the nation's culture, language, values, and ethics, ensuring AI caters to Nepal's unique needs.



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