Transforming the Legal Landscape through Artificial Intelligence: Challenges and Opportunities for Nepal

Advocate Agni Raj Upadhayay (Anil)
LL.M, M.Phil-Ph.D. (Scholar DIRD TU)
Email: namasteadvocate@gmail.com
Advocate Ram Pandit
LL.M, MBS, M.A. Political Science, TU
Email: rpkshetri2580@gmail.com

Abstract

The age of information and technology has led to numerous applications of Artificial Intelligence (AI) in various industries, including law, healthcare, banking, education, entertainment, and transportation. However, ethical and societal issues such as job displacement, algorithm bias, and potential misuse of AI technologies have emerged. Researchers and legislators are working to find solutions to these issues. This review article discusses the increasing use of AI globally and its impact on the legal field in Nepal, focusing on the ethical challenges it faces in the judicial system. The text concludes that while AI is inevitable, clear policy and guidelines are needed to ensure its systematic use to meet human needs for greater goods. The entire text that is enclosed herewith is based on secondary review because it is difficult to locate primary data directly because of lack of specific institutions devoted to the particular research field. Hence, both descriptive and analytical approaches were applied

***Key Words:** Artificial Intelligence (AI), Chat Generative Pre-training Transformer (ChatGPT), Delhi High Court (DHC), Information and Communication Technology (ICT), Natural Language Processing (NLP), Massive Open Online Courses (MOOCs).*

Introduction

The history of artificial intelligence (AI)[91] can be traced back to ancient times, but the formal development of the field began in the mid-20th century. The idea of creating artificial intelligence comparable to that of humans is present in folklore and ancient mythology. Now, during this time, AI was not formally studied or developed. The "mechanical Turk" and Jacques

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[91] Pichai, S. (2018, June 7). *AI at Google: Our principles*. Google. https://blog.google /technology/ai/ai-principles

de Vaucanson's automated flute player are examples of early mechanical devices and automata that were developed in the 17th and 19th centuries. Although they weren't intelligent in the modern sense, these gadgets set the stage for more advanced innovations.

Alan Turing[92] (1936): With his invention of the universal machine, or Turing machine, Turing laid the theoretical groundwork for computing and artificial intelligence. A key idea in artificial intelligence (AI), the neural network, was first mathematically modelled by McCulloch and Pitts in 1943. Dartmouth Conference[93] (1956), The term "artificial intelligence" was coined during a workshop at Dartmouth College in 1956. The conference marked the beginning of AI as an official field of study. Arthur Samuel (1959): Created the first computer program to play checkers, using machine learning techniques.

John McCarthy[94] (1958) an American Computer and Cognitive Scientist Coined the term "artificial intelligence" and developed the programming language LISP, which became prominent in AI research. Researchers focused on developing expert systems, which used knowledge from human experts to make decisions in specific domains. AI's rapid development spans healthcare, finance, robotics, self-driving cars, and education, with ongoing debates on societal effects, algorithm bias, and ethical issues. Despite challenges, AI continues to evolve.

Artificial intelligence (AI) is revolutionizing legal professionals by streamlining research, document analysis, and contract review processes. AI-derived predictive analytics aid in informed decision-making, risk mitigation, and optimization of case strategies.

AI's use in legal fields raises ethical and regulatory concerns like algorithm bias, data privacy, and accountability, necessitating ongoing dialogue and adaptive regulatory frameworks for responsible AI use.AI and overall ethical landscape

The most recent challenges that have been assumed to be faced in the AI world are ethical in nature, as the rapid-fire development of AI services can create more ethical challenges. As a result, the term "AI ethics landscape" refers to the complex and ever-changing field of ethical considerations and principles surrounding the development, deployment, and application of artificial intelligence (AI). It addresses a wide range of issues, including:

Algorithmic bias, Lack of transparency: AI systems are often complex and opaque, making it difficult for users to understand[95] how they make decisions, Privacy concerns, Job

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[92] Aron, J. (2013). *Alan Turing*. New Scientist. https://www.newscientist.com/people/alan-turing/

[93] McCarthy, J., & Minsky, M. (n.d.). *Artificial Intelligence (AI) coined at Dartmouth*. Harvard University. https://home.dartmouth.edu/about/artificial-intelligence-ai-coined-dartmouth

[94] Teneo.ai. (n.d.). *John McCarthy, the father of artificial intelligence*. https://www. teneo.ai/blog/homage-to-john-mccarthy-the-father-of-artificial-intelligence-ai

[95] "The Professionalism Series: *Transforming the Legal Landscape with Artificial Intelligence*." *BLG*, www.blg.com/en/insights/2023/09/transforming-the-legal-landscape-with-artificial-intelligence. (Accessed on Feb. 11, 2024).

displacement: AI technologies[96] have the potential to automate many tasks currently performed by humans, which could lead to job displacement and economic disruption, Safety and security, Accountability.

It is important to establish clear lines of accountability for AI systems, so that those responsible for their development can be held accountable for any negative consequences.

The AI ethics landscape is constantly evolving, as new technologies and applications emerge. It is important for stakeholders, including researchers, developers, policymakers, and users, to engage in ongoing dialogue and collaboration to address the ethical challenges posed by AI.

It is critical to examine the bias in the underlying data sets to ensure that ethical issues are mitigated. When it comes to AI tools, this is one of the most serious risks. Bias and equity issues are major issues with data, and we must do everything possible to understand and explain the datasets. It is also critical to consider the use-case, and if AI is required for the project, can the task be completed without AI? Is it more dangerous to use AI in this capacity? Furthermore, ensuring the accuracy of data is critical and will take a long time.

Though AI has many uses, using it wisely and keeping human perspective and legal judgement in mind are still essential. Everyone should be ready to learn new things constantly and adjust to changes as AI develops. New laws and regulations should be enacted in accordance with advancements in the law, but they shouldn't stifle potential innovation. It will be crucial to adopt an iterative strategy and stay current with the evolving legal ramifications of this technology.

Transforming the Legal Landscape through AI

The winds of change are blowing through the legal profession. Artificial intelligence (AI) and automation technologies are causing a significant upheaval in the traditional legal landscape that could change the way legal professionals conduct their daily business and engage with clients. The legal profession is investigating the use of AI[97] to improve efficiency, spur innovation, and streamline procedures as businesses from various industries embrace the potential of generative and predictive AI.

Historically, the legal industry has been labor-intensive, requiring lawyers and paralegals to put in a lot of time on things like researching laws, reviewing documents, and conducting due diligence. By automating monotonous tasks, artificial intelligence (AI) is revolutionizing this paradigm and enabling legal professionals to concentrate on higher-value tasks that call for their critical thinking, human judgement, creativity, and emotional intelligence.

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[96] The Wall Street Journal, *Artificial Intelligence Experts are in High Demand*" (Accessed on May 1, 2015).

[97] Miles Gillhespy, *AI in the Legal Landscape: How Automation is Transforming Legal Practice*, SSQ (2023), available at https://ssq.com/articles/ai-in-the-legal-landscape-how-automation-is-transforming-legal-practice/. (Accessed on Dec. 09, 2023).

In recent years, AI-enhanced document review and e-discovery have become more commonplace. However, the emerging field of generative AI systems advances this development by using Natural Language Processing (NLP) to a much greater extent in reasoning, learning, and communication. As a result, AI becomes an even more potent tool in the toolbox of lawyers for organizing and analyzing legal documents. It can now detect risk, make suggestions for enhancements, guarantee regulatory compliance, and reduce the possibility of missing.

Additionally, as a result of past contracts, machine learning algorithms can gain experience, growing more precise and effective with each analysis. This helps anticipate possible contractual disputes, which contributes to proactive risk management. It also guarantees a more accurate, efficient, and economical contract review process and enhances the quality of contract drafting.

However, the authenticity of AI-created documents and tools remains a question mark. As our legal systems are not yet as advanced, the Nepali legal system is still in far behind than developed countries in terms of technology adoption. While our new generation appears to be more intelligent on a daily basis in terms of various tasks, complete transformation of the legal system through AI remains a significant challenge for all of us.

AI might jeopardize jobs for human workers.

Recent scientific literature and media coverage have emphasized concerns about AI's potential to endanger human jobs, abuse malicious actors, and undermine fairness. Studies suggest AI could disrupt 75% of human work within ten years, potentially leading to daily income loss and disruption. The research article "Artificial Intelligence and Jobs: Evidence from Online Vacancies" by Daron Acemoglu, David Autor, Jonathan Hazell, and Pascual Restrepo. The authors specifically address how AI adoption affects job postings and employment patterns across various sectors.

The study explores the impact of AI adoption across different sectors, highlighting that AI can either supplement or replace human labor. It uses data from online job postings and machine learning techniques to categorize job descriptions. AI-related career prospects are expanding in technology and finance industries, while industries relying on repetitive labor are more likely to experience job displacement due to AI automation. The study aims to determine which types of work and occupations are most likely to be replaced or supplemented by AI technologies. Industries dependent on repetitive, physical labor are more likely to experience a decline in job openings because of AI automation.

This study highlights the disparities in AI adoption and its impact on employment, with areas with better trained personnel and technological infrastructure likely to benefit more. This may lead to increased or reduced employment due to automation. The research emphasizes the need for policies promoting workforce AI adaptation, including investments in educational and

training initiatives, to ensure widespread AI benefits across industries and geographical areas and to lessen the detrimental effects on employment.

The labor market is polarized, with high-skill, high-wage employment increasing and middle-skill jobs decreasing. Between 1980 and 2010, middle-wage occupations decreased by ten percentage points, while high-wage and low-wage occupations increased. In 2019, AI-intensive workers earned an average yearly income of $113,000 compared to $42,000 in non-AI-intensive industries, indicating the wage difference caused by technological adoption.

The implementation of robots and AI in manufacturing has resulted in major employment losses in this industry. Manufacturing employment in the United States declined from 17.3 million in 1980 to 12.8 million in 2018, owing primarily to automation and offshore.

OpenAI grabbed headlines by releasing ChatGPT, and "generative AI" became a term used in households around the world. According to Open AI CEO Sam Altman[98], "A lot of people working on AI pretend that it's only going to be good; it's only going to be a supplement; no one is ever going to be replaced." but, he adds, "jobs are definitely going to go away, full stop." Two major labor strikes this year (2023), by the Writers Guild of America and the actors union (SAG-AFTRA), have helped focus attention on the threat AI poses to well-paid jobs.

When OpenAI publicly released ChatGPT (November 30, 2022), the term "Generative AI" became popular in homes around the world. According to Open AI CEO Sam Altman, "a lot of people working on AI pretend that it's only going to be good; that it's only going to be a supplement; no one is ever going to be replaced." However, he adds, "jobs are definitely going away, full stop." Some recruitment companies in the United States are more concerned about job market issues as a result of their various studies on the future impacts of the job market via AI.

Standford Social innovation review quoted[99] that too many commentators believe that the path of technology is unavoidable. However, history shows that technologies evolve in response to the vision and choices of those in positions of power. As we show in Power and Progress: our 1,000-Year Struggle for Technology and Prosperity, when these decisions are left entirely in the hands of a small elite, that group should expect to reap the majority of the benefits while everyone else bears the costs-potentially for a long time (Stanford Social Innovation review of AI by Daron Acemoglu & Simon Johnson Oct. 25, 2023).

McKinsey global institute[100] says that at the global average level of adoption and absorption and advances in AI implied by their simulation, AI has the profound impact to

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[98] *Id, p.24-32.*

[99] Baker, D., & Hanna, A. (2022, June 7). AI ethics are in danger: Funding independent research could help. Stanford Social Innovation Review. https://ssir.org/articles/entry/ai_ethics_are_in_danger_funding_independent_research_could_help

[100] Koutroumpis, P. (2023, October 9). Expert comment: AI demand is booming for the right skills and for the technology 'glue-guys'. University of Oxford. https://www.ox.ac.uk/news/2023-10-09-expert-comment-ai-demand-booming-right-skills-and-technology-glue-guys

deliver additional global economic activity of around $13 trillion in the foreseeable future and by 2030, or about 16% higher cumulative GDP compared with today. This amounts to 1.2% additional GDP growth per year. If delivered, this impact would compare well with that of other general-purpose technologies throughout history. This will mainly come from substitution of labor by automation and increased innovation in products and services. The same report[101] went on to say that by 2030, the average simulation shows that some 70% of companies will have embraced the AI revolution and adopted at least one type of AI technology but that less than half will have fully absorbed the five categories. Forbes[102] say AI has the potential to be among the most disruptive technologies across global economies that we will ever develop.

In Nepal, AI is not widely used, but it has been tried in some sectors such as health, education, business, tourism, and hospitality. Some practices are being tried in the legal sector, such as distance hearings and pleadings during the pandemic, the Supreme Court of Nepal practiced online pleading and lawyering, which are some of the efforts of digitalization that were made, but due to a lack of well structure in digitization system and clear policy, AI is still not applied in the workplace especially in legal sector. Hence, it can be said that in legal sector, AI does not replace any job within this fraternity.

What effects will AI have on society in the future?

Forbes media predicts that AI will simplify our lives and positively shape humanity's future. Bernard Marr & Co predicts its transformative impact on various industries, including jobs and industries. AI has the potential to enhance productivity, improve healthcare, and increase access to education. It can also solve complex problems and make daily life easier and more convenient. The transformative impact of AI will have far-reaching economic, legal, political, and regulatory implications. AI-powered technologies can also help solve complex problems and make our daily lives easier and more convenient.

Key Challenges from AI in broader Society

Data Privacy and Security: For training and improvement, AI systems frequently require massive amounts of data. Handling this data raises privacy and security[103] concerns, especially when dealing with sensitive information, Bias and Fairness, Interpretable and Explainable AI: Many AI models, especially deep learning models, are often considered black boxes, making it challenging to understand their decision-making processes. So, this might be other challenges

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[101] Rostron, M. T. (2024, January 10). How will artificial intelligence affect jobs 2024–2030. Nexford University. https://www.nexford.edu/insights/how-will-ai-affect-jobs

[102] Amdur, E. (2023, November 25). Jobs AI just can't do. Forbes. https://www.forbes.com/sites/eliamdur/2023/11/25/jobs-ai-just-cant-do/?sh=f1fe3a531a2c

[103] SRI International, & USC Information Sciences Institute. (2015). Cybersecurity experimentation of the future (CEF): Catalyzing a new generation of experimental cybersecurity research [Final report]. https://www.sri.com/publication/cybersecurity-experimentation-of-the-future-cef-catalyzing-a-new-generation-of-experimental-cybersecurity-research.

for building trust and ensuring accountability. Ethical Considerations, Lack of Standardization, Robustness and Adversarial Attacks, Resource Intensiveness.

In Nepali society, AI has been viewed positively because it is somehow a matter of digital Nepal and Smart Nepal. In another side it has been creating a digital divide and digital gap, which are causing significant discrimination between the country's urban and rural areas. Technological development is perceived as development in Nepalese society, whereas the gaps created between haves and have-nots can be a social threat from this perspective, which may be viewed as the defective side of the same coin.

Scope, Challenge, and opportunity of AI in Legal Landscape

The winds of change are blowing in the legal world. The traditional legal landscape is undergoing a profound transformation, fueled primarily by advancements in artificial intelligence (AI)[104] and automation technologies, which has the potential to reshape how legal professionals conduct their daily operations and interact with clients. As businesses across industries explore the possibilities of predictive and generative AI, the legal profession is also investigating how to use AI to streamline processes, improve efficiency, and drive innovation.

AI is revolutionizing the legal profession by automating repetitive tasks and allowing lawyers to focus on critical thinking, creativity, and emotional intelligence. AI-powered chatbots streamline client intake and gather initial information. AI may also predict legal outcomes based on historical data, providing valuable insights for case strategies. Legal analytics has immense potential for the future of legal practice, despite its infancy, legal analytics has enormous potential for the future of legal practice.

AI is also improving the speed with which documents can be reviewed, and it is increasing the capability of reasoning, learning, and communicating to a much greater extent through Natural Language Processing (NLP). This makes artificial intelligence (AI) an even more powerful tool in the lawyer's toolbox for organizing and analyzing legal documentation, with the ability to identify risk, suggest improvements, ensure regulatory compliance, and reduce the possibility of overlooking critical details.

In the context of legal practice, AI is not a futuristic concept; it is the present reality, facilitating tasks from machine-learning-enhanced document management and faster, more powerful research capabilities, to automated contract analysis and virtual assistants.

AI and automation in the legal sector pose ethical and regulatory challenges, including ensuring accuracy and fairness of AI algorithms. Neutral algorithms are being used in recruitment to promote diversity and inclusion, overcoming unconscious bias. Protecting client privacy and data security is crucial, and the sector needs to provide continuous training and adapt to new systems. Despite these challenges, AI offers advantages such as enhanced efficiency, accuracy, and client service, making it an indispensable tool for modern legal practice.

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[104] Surden, H. (2019). *Artificial intelligence and law: An overview*. University of Colorado Law School. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3411869.

These systemic changes will result in a shift in the sought-after skills for lawyers, with a greater emphasis on higher-level understanding and insight, as well as experience with AI[105] technologies, becoming extremely valuable to both law firm partners and in-house general counsels and C-suite executives. New jobs, such as legal data analysts, are already emerging as a result of a growing understanding of the AI landscape, and this will become a competitive focus area as firms compete to attract the best talent to help them grow in the future.

According to the Miles Gillhesphy, Associate Director of Search assignments for blue-chip organizations[106] (SSQ.Com) AI platforms advance, legal professionals and law firms that embrace these innovations will be better positioned to navigate the complexities of today's legal landscape and provide more effective services. They are not only adapting to change, but also shaping the future of the legal profession by driving the evolution of skills and expectations in tandem with technological advancements.

Thus, AI is creating a wider scope in terms of its technological landscape in every sector, as well as an opportunity in different fields such as law, and it is also creating a threat in terms of data privacy, legal vacuum, also known as penumbra situations where law is not fully functional to address the new issues brought to you by AI technology and its wider scope, which describes the gray area around an established legal principle or rule pertaining to AI that has not yet been developed, and the law's precise applicability is unclear. Hence, we must view AI as both a challenge and an opportunity in the real world.

Specific AI tools that applied in the legal field

Various tools of artificial intelligence[107] are used in the legal field to streamline processes, improve efficiency, and assist legal professionals[108] in their work. These tools use technology to help with legal research, document management, case analysis, and practice management in general. Here are a few examples of tools commonly used in the legal sector.

Legal Research Platforms: Westlaw and LexisNexis: These are comprehensive legal research platforms that provide access to a vast database of legal information, including case law, statutes, regulations, and legal publications.

Document Management Systems: Manage and NetDocuments: These tools[109] help law firms organize, store, and collaborate on legal documents securely.

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[105] Lee, K.-F. (2018). AI superpowers: China, Silicon Valley, and the new world order (2nd ed., pp. 11–72). Houghton Mifflin Harcourt.

[106] Gillhespy, M. (n.d.). Lawyers and compliance through technology. SSQ Research. https://ssq.com/consultants/miles-gillhespy.

[107] Admin. (2023). 6 ways to use Law ChatGPT for your legal studies. LawChatGPT. https://lawchatgpt.com/blog/6-ways-to-use-law-chatgpt-for-legal-studies

[108] Id,

[109] LexisNexis. (n.d.). The power of artificial intelligence in legal research. https://www.lexisnexis.com/community/insights/legal/b/thought-leadership/posts/the-power-of-artificial-intelligence-in-legal-research

E-Discovery Software: Relativity and kCura: E-Discovery tools assist legal professionals in managing large volumes of electronic information during the discovery phase of litigation.

Case Management Software: Clio and MyCase: These tools streamline the management of cases, clients, and tasks.

Contract Management Systems: Icertis and ContractPodAi*:* For law firms and legal departments dealing with numerous contracts, these tools offer centralized storage, tracking, and management of contracts.

Legal Analytics Platforms: Blue J Legal and Ravel Law*:* These tools use artificial intelligence to analyze legal data and predict case outcomes, helping lawyers make more informed decisions based on historical case law and judicial behavior.

Legal Practice Management Software: PracticePanther and Rocket Matter*:* These tools provide end-to-end solutions for law firms, covering client management, time tracking, billing, and document management.

Legal Virtual Assistants: ROSS Intelligence and EVA by LegalMation: AI-powered virtual assistants help legal professionals by automating routine tasks, conducting legal research, and providing insights into case law and statutes.

Electronic Signature Platforms: DocuSign and Adobe Sign: These tools facilitate the electronic signing of legal documents, improving the efficiency of the document review and approval process while ensuring compliance with e-signature laws.

Legal Project Management Tools: Monday.com and Asana: While not designed exclusively for the legal field, these project management tools are often adapted for legal project management, helping teams collaborate, track tasks, and meet deadlines.

Software solutions like **Clio**, **MyCase, lawchatgpt.com** have emerged as top choices among lawyers. There are so many in the line of upcoming series.

Recent Trend of AI in Nepal

Artificial intelligence (AI) has grown exponentially and gained widespread attention, considering the fourth industrial revolution. AI has altered how students learn, teachers teach, lawyers pleading, and institutions operate.

In the Nepalese scenario, AI could be both an opportunity and a threat. It can provide more opportunities for IT entrepreneur and students and help Nepalese IT professionals better explore the job market outside of the country, but at the same time AI can influence upcoming digital governance[110], such as impact and influence electoral processes, digital market, digital functions of any organizations and job markets involving non-technical people.

Nepal is a country that relies heavily on remittances; Nepalese people who are not as skilled as those working in Golf Countries may be replaced by AI, which may harm the Nepalese economy.

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[110] UNESCO. (2024, January 11). *Unveiling the intricacies of AI governance in Nepal: Multistakeholder dialogue on artificial intelligence governance.* https://www.unesco.org/en/articles/unveiling-intricacies-ai-governance-nepal-multistakeholder-dialogue-artificial-intelligence.

The Digital Nepal Framework is a government proposal aimed at promoting digital literacy and advancing information and communications technology. It is currently undergoing a review process. The Kathmandu Post reported on November 28, 2023, citing Krishna Bahadur Raut, secretary at the Ministry of Communication and Information Technology, who provided information about it. The report emphasized the importance of having conversations that promote mutual understanding.

According to Raut, the ongoing discussion in this field by various concerned organizations can aid in the development of coherent policies, legal frameworks, and effective mechanisms that regulate AI and align with the broader goals of national development, where he expects to explore new avenues for optimizing the opportunities that AI offers while mitigating potential risks and ensuring AI contributes to a more inclusive, sustainable, and peaceful world.

Dr. Sameer Maskey, Founder and CEO of Fusemachines and Adjunct Associate Professor at Columbia University created the first software robot[111] in Nepal. Chatbots are software robots that answer consumer questions around the clock and can be used in e-commerce, trekking, airlines, hotels, hospitals, telecommunications, and government work. The state of New York also employs this robot. He has also demonstrated in Nepal Academy of Science and Technology (NAST) through the Nepali Speech Synthesizer (Nepali to English) Recognition project.

AI was introduced into academic institutes as well as courses and curriculum. Tribhuvan University, Kathmandu University, Pokhara University, Purbanchal University, and others offer Artificial Intelligence courses. In recent days, AI-related programmes in Nepal have been held on a regular basis in Kathmandu. The number of people attending such meetings, seminars, and workshops is growing.

To cater to artificial intelligence enthusiasts, a community called 'AI: Artificial Intelligence Developers Nepal' was recently formed. Some institutes are increasingly using artificial intelligence in apps, programming, and training for interested individuals.

A Hong Kong-based company named *Hanson Robotics* garnered significant attention in 2016 after creating the robot "Sophia." whom, in October 2017, Saudi Arabia also granted citizenship. Many Nepalis interacted with "Sofia" when it was brought to the country[112] in March 2018 for the UNDP[113] conference on "Technology for Public Services." Many people cited Yantra Manav Sophia's statement. This has heated up the AI discussion in Nepal.

There is also an equal debate on technological advancements which balance with digital human rights and safeguard fundamental principles such as peace, security, and the freedom of expression and access to information.

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[111] ICT Samachar. (2019, February 7). *AI opportunities and challenges in Nepal.* https://ictsamachar.com/news/1100/

[112] Kathmandu Post. (2018, March 20). Saudi Arabia's robot citizen Sophia to visit Nepal today. https://kathmandupost.com/national/2018/03/20/saudi-arabias-robot-citizen-sophia-to-visit-nepal-today

[113] https://kathmandupost.com/national/2018/03/20/saudi-arabias-robot-citizen-sophia-to-visit-nepal-today (Aceesed on March 20, 2018).

Some key points of advantages and disadvantages of Artificial Intelligence are included herewith.

<u>Advantages and Disadvantages of Artificial Intelligence[114]</u>

Advantages	Disadvantages
a. To advance and facilitate further research and scientific discoveries.	a. Fear of losing working class jobs in global market.
b. Cheap and quality service where there are no experts or expensive technology.	b. Potential for misuse by the bourgeoisie.
c. Using AI to create new jobs and opportunities.	c. Impact on original culture, indigenous knowledge, and beliefs.
d. Can understand and learn any intellectual task that a human being can (researchers are striving to reach strong AI)	d. Focuses on one task and cannot perform beyond its limitations (common in our daily lives)
e. Use of technology in different Sector to foster IT service navigating the innovations.	e. It will create big challenges to the creator's original creation.
f. Easy to research in any genre of knowledge which helps to produce more knowledge.	f. The risk of people being driven by machines, not by people's own creativity.
g. Easy to operate various services and businesses.	g. Legal and ethical issues that could lead to regulations regarding how technology-based cases and issues should be handled.

AI in Nepalese Judiciary

From November 28 to December 1, UNESCO in collaboration with National Judicial Academy Organized four days' workshop in Kathmandu for the purpose of strengthening the ability of Nepali judiciary[115] to protect the rights to information, freedom of speech, safety of journalists, artificial intelligence, and the rule of law with representing Supreme court, high court and district court judges with the aim of keeping them informed about the latest developments in the law concerning new media and information, communications, and technology (ICT) and how they align with global norms regarding freedom of expression.

As a component of UNESCO's Judges' Initiative, an international program, the workshop aims to enhance the judiciary's ability to uphold freedom of expression, ensure journalist safety, put an end to attacks on journalists' impunity, and stop indiscriminate actions that compromise freedom of expression more broadly. As reference of official cite of UNESCO Since 2013,

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[114] IABAC. (2024, January 12). Advantages and disadvantages of artificial intelligence. https://iabac.org/blog/advantages-and-disadvantages-of-artificial-intelligence

[115] UNESCO Nepal. (2023, December 5). *Strengthening Nepali judiciary on safeguarding freedom of expression and access to information, journalist safety, artificial intelligence and the rule of law.* https://www.unesco.org/en/articles/strengthening-nepali-judiciary-safeguarding-freedom-expression-and-access-information-journalist

the UNESCO Judges' Initiative has worked with over 36,000 judicial actors from over 160 countries (unesco.org) to improve and expand their knowledge and capacity on international and regional standards on freedom of expression, access to information, and journalist safety, including through a series of massive open online courses (MOOCs).

This is a recent and critical part of the efforts made in relation to the massive development of AI in various sectors, including the judiciary, as well as how to maintain digital balance while developing new laws to address the digital era, which includes AI and new technology.

Current Chief Justice declared the use of Artificial Intelligence

Hon'ble Vishwambhar Prasad Shrestha promised[116] to guarantee justice for everyone by delivering prompt, efficient, fair, and high-quality justice in line with Nepal's Constitution after being confirmed as chief justice.

At the meeting of the parliamentary hearing committee, he presented his action plan and stated that he is aware of and sensitive to the ultimate responsibility of the Chief Justice to make the administration of justice effective, as stated in Article 136 of the Constitution.

He has also stated that the online arguing method will be expanded in order to save the cost and time of physically attending the court due to geographical reasons. In addition, he has included in his action plan the goal of researching the feasibility of using Artificial Intelligence in justice administration activities other than case decision making.

Similarly, Bal Krishna Dhakal[117], a proposed Supreme Court Justice, has stated that he will actively work to institutionalize the use of artificial intelligence (AI) in court management. In his presentation to the parliamentary hearing committee (PHC) on December 18, 2023, proposed Justice Dhakal stated that he will leave no stone unturned in his efforts to institutionalize the use of AI in the courts (Reported by Nepalkhabar.com).

Use of AI in legal landscape of Neighboring Countries

In our very close neighboring country India with its robust startup ecosystem and AI powered innovation has the highest AI skill penetration rate in the world. Growth of AI in the Indian legal field is subdued and only about 4% lawyers in India make use of AI for their work.

In March, the India Today group debuted Sana, the nation's first AI News Anchor, on their Hindi channel, Aaj Tak. Meanwhile, in July 2023, Odisha TV, a news station based in Odisha, unveiled "Lisa," the nation's first regional AI news anchor.

In November 2023, Madras High Court, Justice M. Sundar has been appointed head of the computer committee responsible for overseeing e- initiative.

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[116] Ratopati.com News. (2023, August 21). *Proposed chief justice's action plan: From use of 'artificial intelligence' to advocating online debates*. https://www.ratopati.com/story/380430/bishwambhar-prasad-shrestha

[117] Nepalkhabar.com News. (2023, December 18). *I will institutionalize AI's use in court: Proposed Justice Dhakal*. https://en.nepalkhabar.com/news/detail/7519/

As the Indian judiciary[118] deals with increasing caseloads and calls for greater transparency, artificial intelligence could prove to be a valuable ally.

The term of Supreme Court Chief Justice Dhananjaya Yeshwant Chandrachud has been marked by a wave of technological reforms. The Supreme Court urged higher courts on 6 October 2023 to ensure that no member of the bar is denied access to video conferencing or hybrid-facility hearings. Previously, during the Article 370 hearings, the CJ urged counsels to submit their arguments and supporting materials online.

The Indian judiciary[119] embraced virtual hearings, online dispute resolution, and remote collaboration during the Covid lockdown. Though, most of the Indian legal professionals in favor of live streaming of court proceedings which can be increased more transparency and public trust. The Madras High Court used technology to achieve impressive case clearance rates (CCR) of 93.07 percent and 98.12 percent in 2020 and 2021, compared to 76.75 percent and 83.70 percent for all other high courts in those years. In 2020 and 2021, Tamil Nadu's trial courts had CCRs of 85.02 percent and 95.18 percent, respectively, compared to 62.60 percent and 81.12 percent for all other district courts in the country.

Regarding some case law related to AI, the Delhi High Court (DHC) stated in the case of Christian Louboutin SAS & Anr. v. M/s[120] The Shoe Boutique - Shutiq (CS (COMM) 583/2023) that, in its current state of technological development, AI cannot replace human intelligence in the adjudication process. It emphasized that AI chatbot responses cannot be used to adjudicate legal or factual issues in a court of law.

France-based Christian Louboutin SAS and Clermon ET Associes (the "Plaintiffs") initiated a suit against an Indian firm, M/s Shoe Boutique (Shutiq) (the "Defendant"), alleging infringement of their trademark rights and unauthorized copying of their distinct shoe designs. Notably, the Plaintiffs are renowned globally for their iconic "red sole" shoes, which have gained substantial reputation and goodwill, including in India since their introduction in 2012. Apart from their signature "red sole" shoes, the Plaintiffs have also introduced a unique "spiked shoe style" in 2010.

The Plaintiffs contended that their shoe styles possessed inherent distinctiveness and are readily identifiable as their creation. To support their claim, the Plaintiffs cited a response from ChatGPT. The Plaintiffs asked ChatGPT if Christian Louboutin was known for spiked men's shoes, to which it responded affirmatively. However, the DHC posed a different question to

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[118] Jinnah, H. M. (2023, November 3). *AI-powered courts can rewrite future of judiciary*. *The New Indian Express*. https://www.newindianexpress.com/opinions/2023/nov/03/ai-powered-courts-can-rewrite-future-of-judiciary-2629474.html.

[119] id

[120] Majmudar, A., & Majmudar, R. (2023, September 25). *AI in Indian courts – A slow start*. Majmudar & Partners. https://www.majmudarindia.com/ai-in-indian-courts-a-slow-start/.

ChatGPT asking for the names of brands that produce spiked shoes, and in response, ChatGPT listed ten (10) different companies, including Christian Louboutin.

While the judgment primarily revolved around a trademark dispute, the DHC also made interesting observations about the reliability of chatbots in legal proceedings. In view of ChatGPT's response to the question posed by the DHC, the DHC[121] concluded that ChatGPT cannot serve as the basis for adjudicating legal or factual matters in a court of law. This is because, firstly, the response from Large Language Model (LLM) based chatbots like ChatGPT depends on various factors, including the nature and structure of the user's query, training data, etc., and secondly, there are possibilities of AI chatbots generating incorrect responses, fictional case laws, imaginative data, etc., making the accuracy and reliability of AI-generated data a "grey area."

The DHC asserted that in its current state of technological development, AI cannot replace human intelligence or the humane element in the adjudicatory process. At most, AI tools can be used for preliminary understanding or research, but not more than that.

Notably, the DHC decision aligns with recent rulings in the United States (the "US"), where lawyers appearing in court must confirm that generative AI was not the sole author of their legal filings, or if AI was involved, that a human verified the content. Judge Brantley Starr of the US District Court for the Northern District of Texas recently addressed the potential of generative AI platforms[122] to engage in "hallucinations" and provide inaccurate information such as quotes and citations. Judge Gabriel Fuentes in the US District Court for Northern Illinois issued an order mandating disclosure of generative AI tool usage in the drafting of court documents, including specifying the AI tool and the manner of its application. Parties are also required to disclose whether generative AI was used for conducting the corresponding legal research. Further, Judge Stephen Vaden of the US Court of International Trade has required lawyers to also certify that the use of the AI tool "has not resulted in the disclosure of any confidential or business proprietary information to any unauthorized party."

In this regard, the Indian government should swiftly enact legislation to govern the use of AI tools. Other countries, have either already implemented draft AI rules (such as China), are actively soliciting input on federal AI legislation (such as the US), or are in the process of finalizing legislation (such as the European Union's AI Act). There is no AI Law in India that regulates AI tools; instead, there is a strategy from the government's think tank, NITI Aayog, or recommendations from the Telecom Regulatory Authority of India.

Courts in the legal fraternity must continue to build jurisprudence[123] regarding the appropriate application of AI in the adjudicatory process, with an emphasis on finding a middle ground between implementing AI and maintaining the human component of justice. Following

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[121] Majmudar & Partners. (2023, September 25). *AI in Indian courts – A slow start*. https://www.majmudarindia.com/ai-in-indian-courts-a-slow-start.

[122] *Id*

[123] Drake, A., & Keller, P. (2021). Legal contestation of artificial intelligence-related decision-making. *Journal of Information, Communication and Ethics in Society, 19*(3), 251–285. https://www.tandfonline.com/doi/full/10.1080/13600869.2021.1999075.

the US's lead, Indian courts have the authority to compel mandatory disclosures about the use of AI, including the name of the AI tool, how it was used, and the precise sections that were researched or written using it.

Moreover, it is critical that the legal community[124] as a whole actively participates in policy debates regarding the application of AI tools. This entails outlining their parameters and restrictions, guaranteeing the security of private client information, and tackling the possibility of ingrained prejudice that could have a negative impact on marginalized communities and who are under privileged from the new media and latest technology.

Although the incorporation of AI technologies[125] in the courts has been painstakingly slow compared to other nations such as China and the USA. A momentous milestone was the introduction of the first AI portal SUPACE (Supreme Court Portal for Assistance in Court Efficiency) was launched by the Supreme Court of India in 2021 to understand judicial processes that require automation and assist the Court in improving efficiency and reducing pendency by encapsulating judicial processes that can be automated through AI. For a diverse country like India having over 22 major languages, SUVAS (Supreme Court Vidhik Anuvaad Software) was established to help with the translation of court decisions into regional dialects. This AI-backed tool has the ability to translate legal papers from English into vernacular languages and vice versa.

India is among the top 10 countries in the world[126] for government and private sector investment in Artificial Intelligence (AI), despite the fact that the country does not yet have any laws governing the technology. The Punjab and Haryana High Court rejected a petition using ChatGPT, an artificial intelligence chatbot created by OpenAI, in a first for the legal system. A technology called Teres, which is usually used to transcribe arbitration proceedings, was recently allowed to be used to live transcribe the Supreme Court's proceedings. Artificial intelligence is being embraced by Indian courts, as seen by the increasing use of AI technologies in their daily operations and jurisprudence.

Judicial systems around the world are analyzing large amounts of legal data to assist lawyers in identifying precedents in case law, to assist administrations in streamlining judicial processes, and to assist judges with predictions on issues such as sentence duration and recidivism scores. The rise of legal analytics and predictive justice has implications for human rights, as the opaqueness of AI systems can run counter to the principles of open justice, due process, and the rule of law.

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[124] Drishti IAS. (2022, March 8). *Artificial intelligence in judiciary*. https://www.drishtiias.com/daily-news-analysis/artificial-intelligence-in-judiciary

[125] Maria, R. (2023, July 5). *AI in the Indian judiciary system: Feasible or a far-fetched vision?* https://blog.ai-laws.org/the-large-scale-integration-of-artificial-intelligence-in-the-indian-judiciary-system-feasible-or-a-far-fetched-vision.

[126] UNESCO. (2022, March 14). *AI and the rule of law: Capacity building for judicial systems (review)*. https://www.unesco.org/en/artificial-intelligence/rule-law/mooc-judges

The Massive Open Online Course (MOOC)[127] on Artificial Intelligence and the Rule of Law are available to engages judicial operators in a global and timely discussion about AI's application and impact on the rule of law.

Such courses are fostering the opportunities and to identify risks of the increasing adoption of AI technologies across justice systems, as well as the impact of AI on the administration of justice, particularly in terms of human rights and AI ethics and governance.

Conclusion

With the practice of law on the verge of a revolution fueled by the increased use of artificial intelligence in the profession, it is more important than ever to consider the legal and ethical implications. The complex relationship between artificial intelligence and law, fraught with ethical and moral quandaries, cannot be overlooked. The deluge of constant, new data required massive time to process in the twenty first century, and this laborious work can be delegated to AI; considering the many pending cases in judicial systems all over the world, the opportunities that the widespread use of AI brings are much needed.

The legal system must deal with issues regarding the impact of AI on human rights, liability, and surveillance, among other things, as these technologies advance. Various issues concerning fairness, accountability, and transparency in decisions made by automated or AI-enabled systems have also been raised by the use of AI in the legal system.

AI's potential in the criminal justice system is already being investigated by many judicial systems worldwide, including the judiciary, prosecution services, and other domain-specific judicial bodies. AI could aid in investigations and automate or simplify decision-making processes. However, utilizing AI raises a number of issues that require resolution. Pattern recognition, ethics, bias in AI-based algorithms, accountability, and transparency are some of these issues.

Some of the drawbacks of AI can be lessened by conducting frequent performance reviews of the automated systems, conducting thorough accuracy assessments on a regular basis, adhering to security and privacy policies, and creating strong legal frameworks. Since AI is still in its early stages of use in the legal field, there may be more negative effects down the road, but for now, no one can predict the long-term effects AI will have on society due to the unpredictable nature of radical technological changes.

AI has the potential to revolutionize industries by automating tasks and providing innovative solutions, but its widespread adoption raises concerns about job loss, economic disparities, and ethical issues like algorithm bias and lack of transparency. Balancing these risks is crucial for responsible technology development and deployment.

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[127] UNESCO. (2022, March 14). *AI and the rule of law: Capacity building for judicial systems (review)*. https://www.unesco.org/en/artificial-intelligence/rule-law/mooc-judges.

Artificial intelligence (AI) can significantly enhance socioeconomic development in developing nations like Nepal. It can improve food security, healthcare access, education, and public services delivery. By adopting AI, Nepal can accelerate development, promote inclusive growth, and reduce corruption, ultimately overcoming traditional development obstacles.

AI also can simplify procedures and boosts productivity in Nepal's legal and judicial systems, among other advantages. Legal professionals can concentrate on more intricate and strategic aspects of their work by cutting down on the amount of time spent on case preparation with the help of automated document analysis and legal research tools. By evaluating a plethora of legal data, AI-powered predictive analytics can assist judges in reaching well-informed decisions, enhancing the consistency and precision of verdicts. Artificial intelligence (AI) technologies can also aid in case load management, better court scheduling, and public and legal professional access to legal information. Adopting AI in Nepal's legal system could expedite the delivery of justice and enhance the transparency and accessibility of the legal system.

References

Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.

Marwala, T., & Mpedi, L. G. (2024). *Artificial Intelligence and the Law*. Palgrave Macmillan Singapore. https://doi.org/10.1007/978-981-97-2827-5

Kapoor, S., Henderson, P., & Narayanan, A. (2024). Promises and pitfalls of artificial intelligence for legal applications. *Journal of Cross-Disciplinary Research in Computational Law, 2*(2). https://journalcrcl.org/crcl/article/view/62

Kingston, J. (2018, February 21). Artificial intelligence and legal liability. *arXiv*. https://doi.org/10.48550/arXiv.1802.07782

Zhong, H., Xiao, C., Tu, C., Zhang, T., Liu, Z., & Sun, M. (2020, April 25). How does NLP benefit the legal system: A summary of legal artificial intelligence. *arXiv*. https://doi.org/10.48550/arXiv.2004.1215.

Shahid, A., Qureshi, G. M., & Chaudhary, F. (2023, December 15). Transforming legal practice: The role of AI in modern law. *Journal of Strategic Policy and Global Affairs, 4*(01), 36–42. https://jspga.com/index.php/jspga/article/view/21

Dharm, J. S., Girme, A., & Gharde, U. (2024, March). Artificial intelligence: Challenges in criminal and civil liability. *International Journal of Law, 10*(2), 52–57

Soukupová, J. (2021). AI-based legal technology: A critical assessment of the current use of artificial intelligence in legal practice. *Masaryk University Journal of Law and Technology, 15*(2), 279–300. http://dx.doi.org/10.5817/mujlt2021-2-6