AI and Governance: Navigating the Future of Policy and Regulation

Outline

1. Introduction
   Thesis statement: Artificial intelligence is increasingly integrated with governance measures such as policymaking and regulation. While AI plays a positive role in enhancing policy formulation, it also raises concerns, particularly regarding privacy. These challenges can be addressed by establishing ethical guidelines to fully harness the benefits of AI.

2. Exploring the connection between AI and governance, through navigating its role in efficient policies and regulations

3. The role of AI in enhancing policy efficiency and strengthening regulatory frameworks
   a. Actualization of sustainable

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policies with the help of AI policy adviser

b. AI tools facilitate data identification and synthesization to design public policies e.g., Covid-19 Track and Trace System

c. AI highlights potential areas for quick action e.g., AI powered flood early warning system

d. ~~Countries can integrate AI for~~ Well researched content ~~public interest policies eg. evidence based child welfare services in Finland~~

e. AI enhances the overall efficiency of policies e.g. Tax policies of Mexico

f. AI can ensure speedy implementation of the policies e.g., policies on transport management and medical services

g. Predictive power of AI is useful to monitor and assess the impacts of the policies

4. Challenges and limitations in using AI for Governance

a. Complex AI decision making processes can be difficult for the policy makers

to comprehend

b. Absence of quality data to be processed by AI to formulate inclusive policies

c. Retention of policy-oriented information by AI softwares causes security vulnerabilities

d. AI-powered monitoring systems can infringe privacy rights and create surveillance issues

e. Less compassion and empathy in AI facilitated policy drafts

f. Reflection of biases and discriminatory attitudes in AI facilitated policies

5. A strategic path to harness the benefits of AI in shaping the future of policies and regulations

a. Enabling digital ecosystem for quality data to be analyzed by AI

b. Designating a parallel decision-making body to address subjective issues of AI

c. Continuous monitoring and evaluation

to address security risks and privacy infringements

d. Responsible development and deployment of AI to maintain public trust in AI driven policies

6. Conclusion

"Artificial intelligence can change our world more than anything in the history of mankind" — these are the words of Kai-Fu Lee, an AI expert and President of Google China. AI revolution is transforming the world at an unprecedented pace; from an individual to global level. The world is trying to govern the AI, meanwhile, AI is sharpening the governance measures, such as policies and regulatory frameworks. It is facilitating the formation of such policy instruments which are sustainable amid the changing times. Data identification

and synthesization is possible in the limited time span. It has become easier for the policymakers, with the help of AI, to identify crucial areas for response by crafting public interest policies. Along with proliferating the efficiency of the policies, it ensures speedy implementation of the frameworks. Still, AI fusion with governance tools has certain limitations, as in, it need IT skilled labour, data centers to analyze collected data. Similarly it raises privacy and security concerns, due to its data retention capacity. It is often complaint by the beneficiaries that AI facilitated policies lack sympathy, and possibly it can exerbate pre-existing biases. Only pathway to harness the benefits of AI in governance tools, is to enable digital ecosystem at national and global levels. There should be continuous monitoring of AI algorithms used in policies crafting, to avoid

privacy infringements. Hence, the development and deployment of responsible AI is mandatory to maintain public trust in AI driven policies.

Policy and regulation making is a complex, bureaucratic, socially and politically motivated task. It has five major steps/phases i.e., identification, formulation, adoptation, implementation, and evaluation. AI helps in all major phases to develop efficient policies, which are up-to-date, resilient to the changing needs, and public-centric. However, AI integration with governance tools have certain challenges, like unavailability of quality data to be processed by machine learning. It also has ethical constraints that are visible in the form of AI biases. Gender shades project has recently evaluated that these is 34.7% error possibility in data analysis of black women and 0.8% error possibility in white women

data analysis by AI tools. It highlights the discriminatory tendencies of AI technologies in policies formulation. AI benefits and risks come together that are resolvable through constant evaluation as happening at global forums like Global Partnership on Artificial Intelligence to ensure trustworthy with AI.

One prime role of AI in strengthening policy frameworks is to actualize the idea of sustainable policies. Sustainable policies mean the governance measures that are transparent, inclusive, and change resilient. Policymakers can develop sustainable policies single-handedly, however, it is time consuming and demand multiple human resource. For AI, formulation of sustainable policies is relatively an easy job. There is AI Policy Advisor, just like ChatGPT that facilitate policies crafting throughout five phases. It provides details regarding international best practices

on any subject, and saves policy makers from exhausting work. To simply put, AI integration with governance has actualized the dream of sustainable policies development.

First step towards the development of sustainable policies, is through data identification and synthesization. All AI tools work on data, that provides ground information to predict future patterns and action plan for it. It is used in day-to-day activities through the help of AI applications. In 2020, when Covid-19 pandemic was on its peak, the government of Pakistan developed an Covid-19 Track and Trade system, that was available in the form of a website and as mobile application. It provided real-time data to the citizens regarding corona virus patients, total quarantine centers nearby, and precautionary guidelines. It also had an option to Self-Declare

corona virus patient. It, overall, facilitated the government to tackle the pandemic and manage quarantine centers, medical services, and patients side-by-side. Hence, AI makes the data collection, identification, and synthesization easier for the policymakers

On a similar pattern, AI highlights potential areas for quick action by the regulators and executors. Natural calamities or manmade disasters demand quick action, to limit the destructions. Though, modern times have boosted the action time limit of the relevant bodies; however, predictive power of AI is unmatchable. In Pakistan, National and Provincial Disaster management Authorities have developed their databases to swiftly counter the calamities. One such example is the AI Powered Flood Early warning System, recently installed in Khyber Pakhtunkhwa. Through this system, the residents will be informed

prior to the flood, to relocate to safe places. It will also help the authorities to conduct relief and recovery operations in the affected areas. Therefore, with the help of AI, potential areas for quick action are timely identified.

Government can also leverage AI as a powerful tool to design public interest policies. Any of the AI technology, works on the basis of data. It analyses the data and makes predictions. With respect to public centric policies, this powerful capacity is helpful to ascertain the needs of any particular segment of the society. In Thailand back in 2019, the government collected data from Twitter to identify reasons for the commodities price hike. Similarly, Finland, which is a top ranked country on 'Human Development Index', uses social media sites to identify child welfare demands, and shapes its programmes and policies accordingly.

Thus, the welfare policies are updated from time to time, in consonance with AI facilitated information.

Not only facilitation, AI also enhances the efficiency of all kinds of policies. AI softwares, and AI centric systems locate the shortfalls of old or pre-established policies/projects and revolutionalize the actions and outcomes of such programmes. In current era, economic vicatility is mandatory to remain a key actor in global politics. Mexico is one of such state that integrated AI softwares in its economic strategies. It conducted a six-months long project to capture tax evaders and fraudulent companies. Within three months, Mexico's AI facilitated systems took cognizance of 3500 tax evaders and 1200 fraudulent companies. It could have been done by a human resource as well, but

at the cost of extra 18-months. Therefore, AI increases the efficiency of economic policies.

Along with efficiency of the policies, it ensures their speedy implementation. It is relatively easier to craft policies, however implementation of any project demands the actual effort. In develop- countries, modern tools like machine learning are utilized to ensure timely implementation of designed projects. In Pennsylvania, traffic radar are designed on AI models, that access traffic flow, traffic congestions, and set signals' timings accordingly, not as per pre-identified timings. Similarly, in louisiana AI softwares are used to improvise medical facilities, and to ensure equitable access to ambulences and emergency medical services to all the patients. These systems are efficiently working in both states. In fact, AI integration has

made the governance models easier and achievable.

After implementing the policies, it also helps to monitor and assess their impacts, by using its predictive power. Generally, policies or any programme is evaluated at the end to determine its intended and uninteded impacts on the masses. With the help of AI, such predictions are possible Prior to the project completion. Through the use of advanced data analysis Asian Development Bank predicted poverty rate in Philippines and Thailand. It, basically, used computer vision technique on satellite imagery and mapped poverty rate, prior to the completion of household surveys cycle. It implies that "evaluation" which is the last stage of any policy, can be exercised in initial stages as well, to better design the policies according to the changing needs

On the other side, use of AI for governance, has its own challenges and limitations. AI models, softwares, or technologies are complex to comprehend for a policymaker. It needs both infrastructure and human resource to harness its benefits. In developing countries such facilities are missing. Alone in Pakistan, there is 70% digital divide according to the World Bank. It is major hindrance to the AI-generated intelligence decisions and outcomes. If traditional and innovative data, as well as, the skilled human resource is missing, any of the AI tool is of no use to foster governance measures. To conclude, complex AI tools need constant help in the form of human resource and data banks for policy develo-pment.

Another similar challenge is the absence of quality data

which is mandatory for inclusivity. This problem arises during natural calamities like climate change or pandemics, because quality of data remains low to be processed by the advanced AI systems. Governments are focused on the inclusive climate resilient policies that cates to gender specific needs like menstrual needs of women. If ground data is missing to truely access gender specific needs, it is difficult for AI algorithms to develop climate adaptation and resilient policies for the future. In absence of quality data can result into overly competitive policies, which cannot be implemented on ground. Hence, forward-thinking policies are not achievable in the absence of relevant information.

With the collection of quality information, the retention of policy oriented information is another issue. AI softwares have the capacity

to retain information of any nature on its external servers. It leads to security issues at national and global levels. Businesses and software houses upload information on AI softwares in bulk. Same practice will be adhered by the ~~politicians, and data is good.~~ *Quotation and data is good.* It causes severe cyber threats to the system users. In 2023 Samsung company banned the uses of ChatGPT for company's tasks. It happened when an employee *mistakenly* uploaded secret codes on ChatGPT. For businesses and IT companies, unauthorized use of AI softwares is not considered safe. Similarly, governments which rely on such systems without proper authorization and backend evaluation can fall prey of security breaches. Furthermore AI-powered monitoring systems can infringe privacy rights and can lead to unauthorized surveillance of the

masses. Government, generally, collects personal, financial, and medical information of the masses to devise programmes. This information is crucial both for the executive and the masses, who are often unaware of the fact that who has access to their personal information. In Pakistan, institutes like NADRA has crucial information of its citizens. To protect this information, the Parliament passed National Data Protection Act, 2023 and devised a "Commission for the Protection of Data", which is yet to materialized. So far, FIA has the responsibility to protect citizens' information, which does not meet the requirements of data and privacy protection. Ultimately, AI facilitated systems are harmful to the privacy of common citizens.

AI driven policies have another problem of less compassion and empathy. Technologies are built on scientific

knowledge, similarly AI algorithms are built on data. They lack human reasoning, compassion, and empathy. Let's take the example of a judge, who gives a judgement on the basis of settled laws and rules. Meanwhile, he uses his cultural knowledge, human reasoning, and compassion to understand the motivation of a criminal to commit a crime. The cultural nuances, human, reasoning and compassion are missing in AI tools. In 1984, a project titled Cyc database, coded 25 million nuances to give AI commonsense, but it was not enough to impart AI with common sense. In essence, AI lacks compassion and empathy, common sense, which are inevitable for public welfare policies.

Lack of compassion further causes AI biases and discriminatory attitudes, which reflect in the policies. It is highlighted earlier that AI algorithms work on traditional

and latest data to make predictions. If the data, which is feeded to algorithms is biased and of discriminatory nature, it will be reflected in the form of discriminatory policies. Academic studies reveal that not only it reflects human biases, but also the nature of AI is yet to be fully explored. It is a new technology and its economic and social implications are not quite visible (Muhammad Asfandyas, "Governing with Intelligence: Its Impacts on Policy Development, 2024). Facial recognition technology has the tendency to discriminate between black-skinned and white-skinned men. It implies that AI biases and discrimination will continue to exist in the governance tools.

To bear the fruits of AI in governance, firstly, there is a need to develop digital ecosystem. This system comprises of data centers,

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access of the masses to digital devices, and skilled labour force. To target a certain part of the population for welfare activity, it is a pre-requisite that people have access to digital means. It helps in gathering quality data, and does not incorporate exclusion or discrimination of any kind. For this purpose, policy makers need special assistance of AI experts, to collect, process, and feed algorithms on true needs. Along with data and infrastructure, good data management and modelling skills are critical for successful AI adoption in the governance measures.

Secondly, a parallel decision making body can tackle the subjective issues of AI. Subjective issues mean the inability to read cultural practices, human reasoning, and principles of compassion. A parallel decision making body can address these shortcomings. National Artificial

Intelligence Policy of Pakistan has a target to train 1 million human resource in AI by 2027. It will definitely cater the demand of skilled labour. However, at policy level no clear target is present that can develop a parallel decision-making body of policy and AI experts to make policies human-centric. It will also help in removing any AI generated biases, and social glitches.

Thirdly, there is a need of continuous monitoring and evaluation of AI softwares to address security risks and privacy infringements. Currently stakeholders have serious concerns over ethical implications of AI. Security is mandatory for executive bodies to smoothly integrate AI with governance. Likewise, citizens must be ensured that their data is in safe hands. In AI safety summit 2023, all the organizations

and government representatives encouraged the monitoring of AI softwares. UN High Commissioner for Human Rights also addressed to the participants to take simultaneous measures to mitigate negative impacts of AI. It is possible through a commitment of relevant bodies to adhere to fairness and inclusivity principles, while designing and engaging AI models for policies crafting.

Fourthly, development and deployment of AI is a talk of the town to maintain public trust. It needs international level commitment, for governments to work together to manage AI, so that, it can strengthen the governance infrastructure at the local level. European Union has passed "European Unions AI Act" that ensures respect for fundamental rights, safety, and ethical principles. Developing countries have also made significant commitments to govern

AI systems. However, they have financial constraints and lack of expertise on this subject. A collective force on the part of developed and developing countries will bring up a true picture of responsible AI. Pakistan can adhere to any of such international AI principles e.g., OECD AI Principles to strengthen public trust in AI driven policies and programmes

To sum the discussion up, AI is a strong contender for the bright future of policies and regulatory frameworks. Limitations to their absolute fusion like safety and security concerns, fundamental rights breaches, lack of compassion, and cyber attacks are manageable, with the help of ethical guidelines. There is a dire need to enable digital ecosystem and parallel decision-making body to provide quality data and cultural understanding of to AI algorithms. Availability of skilled

human resource can automatically resolve the complexities of machine learning. Once these challenges are managed with innovative strategies as purposed, there will remain only the benefits of AI to be cashed in the form of sustainable governance measures. AI through its predictive powers, can inform the policy makers about possible implications of any devised framework. It will be assistive in welfare projects, healthcare services and natural disasters. Similarly, it will boost trustworthiness among beneficiaries and policy implementators. Indeed, AI has the capacity to remarkably change the world, more than electricity, as projected by Kai-Fu Lee. However, the only conditions is to address its negative outcomes, and possible repercussions, at an equal pace, to navigate a bright future of policy and regulation.

Keep it up