



Artificial intelligence in governance: opportunities and threats

OUTLINE

(1) Introduction:

Thesis statement:

There are numerous progressive components expressed that artificial intelligence contributes meaningfully in governance, which also poses severe threats. However, relentless efforts are essential to harness its potential effectively.

(2) Importance of artificial intelligence in contemporary world

(3) Factors demonstrating that artificial intelligence contributes positively in governance:

(3.1) Enhances effective services delivery and facilitation for citizens

Case studies: Estonia's e-governance model.

(3.2) Fosters accountability and transparency in government sectors.

Case studies: India's procurement system.

(3.3) Transforms election commission processes and ensure fairness.

Case studies: e-voting machines, e-voting list verifications.

(3.4) Monitors natural disasters and calamities.

Case studies: satellites, radar SUPARCO.

(3.5) Controls urban traffic management and crimes

Case studies: SafeCity project Islamabad, Lahore.

(3.6) Registers online FIR and complaints in emergency situation.

Case studies: Citizen portal, e-complain cell, 112 emergency respond.

(3.7) Addresses cyber crime and violation against women.

Case studies:- Humdam app, digital terrorism amendment act.

(3.8) Revolutionizes National Data Base and Registration Authority th.

Case studies:- SMART card, Pak identity application.

(3.9) Transform revenue records and tax paying system.

Case studies:- Tax Asaan, ePay Punjab Quick Pay Sindh.

(3.10) Accelerates crops production and agriculture monitoring.

Case studies: Smart farming technologies, Kisan Portal, Ba khabar kisan.

(4) Pernicious threats of Artificial intelligence:

(4.1) Exacerbates misinformation, fake news and privacy risks.

(4.2) Intensifies safety and security of data.

(4.3) Reinforces racial, gender and class inequalities.

(4.4) Escalates cyber bullying, scams, fraud and blackmailing.

(4.5) Reduces employment opportunities and financial stability.

(4.6) ^{Aggravates} ~~Hack~~ Hacking of government financial institutions.

(5) Pertinent measures are essential to mitigate threat of artificial intelligence:

(5.1) Establishing strong fire wall system and encryption system.

(5.2) Promoting e-governance and management system.

(5.3) Investing in human development and digital education.

(5.4) Formulating reforms in PECA act, and Anti terrorism act amendment for digital terrorism.

(5.5) Formulating structural reforms in Nation Action Plan and Pakistan Tele Communication Authority to monitor online platforms.

(5.6) Training Civil servants in Artificial intelligence tools and application.



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Date:...../...../20.....

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(5.7) Strengthening Data Protection, privacy laws and Cyber security system.

(5.8) Investing in National Artificial Intelligence research and development Centers such as (NCAI) National Center of Artificial Intelligence.

(5.9) Learning lesson from successful stories of Artificial intelligence such as Singapore's smart nation initiative, UAE's appointment minister of state for AI.

(6) Conclusion:

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Conclusion:

In a nutshell, a constellation of progressive dynamics indicates that artificial intelligence constitutes a paradigm-shifting force in the domain of governance, such as effective service delivery, accountability and transparency, free electoral processes, monitor weather forecast system, traffic management and regulations, digital complain cell, smart farming technologies, digital revenue records, e-tax paying system, smart identity cards and addresses gender based discrimination.

However, it also poses deleterious threat which diminished the potential of artificial intelligence. The misinformation, fake news, privacy risk, bias, gender and class inequalities are the major obstacles of digitization. Moreover, job displacement, fraud, scam, blackmailing cyber bullying, and hacking of financial institutions exacerbates mistrust and undermines the capability of artificial intelligence. Therefore, restless strategic efforts are necessary to curb the alarming threat of artificial intelligence.

"The future belongs to those who design intelligent machines wisely" There are diverse transformative elements affirm that artificial intelligence has emerged as an indispensable instrument in modern governance. It publicizes effective services delivery and provide facilities for people in government and private sector. Artificial intelligence counter corruption and manipulation of money through e-governance and digitization. It enhances accountability and transparency in public and private institutions to curb dement, injustice and nepotism. It revolutionizes the electoral process to ensure fairness, transparency and reduce rigging and result manipulation. In addition to, artificial intelligence monitors natural calamities and disaster to ensure preparedness plan and primitive measures to avoid pernicious consequences. It strengthens urban traffic management and control crime through safe city project and facial identification of offender. Artificial intelligence transform the police station and Complaint centers into digitization such as, e-complaint cells, citizen portal and online FIR. Furthermore, it addresses cyber crime and gender base disparities to maintain balance among society and ensure safe and peaceful environment for females. It digitizes the National Data Base and Registration Authority (NADRA) to provides service delivery and easily formation of Birth and Residential Certificates. Artificial intelligence modernizes the



Inland Revenue services and excise and taxation department to enhance revenue generation and early tax collection through Tax Assam, ePay and Quick Pay. It improves crop production and agriculture soil monitorings through smart farming, drone cameras and hybrid seeds. However, it has also severe deleterious threats that incapacitated the potential and growth of artificial intelligence. The fake news, bias misinformation, privacy risks and class inequalities are the major alarming threats of artificial intelligence. The cyberbullying, scam, fraud, black mailing, hacking, and job displacement exacerbates mistrust and undermine the prospect of digitization in future. Therefore, untiring and relentless efforts are necessary to mitigate threat of artificial intelligence through take such as primitive initiatives, strong fire wall and encryption system, digital education, reform in PECA act, and strengthening data protection, privacy laws and cyber security system.

Artificial intelligence has emerged as a transformative force, bridging the gap between human limitations and technological possibilities. It transforms the education traditional learning and teaching methods through modern tools of digitization such as, zoom app, google classroom, and Chatgpt, Chatbot. It is cornerstone of digital revolution, reshaping the fabric of human life, governance and global order. Additionally, artificial intelligence revolutionizes the industries and agriculture.

sector through modern technologies, smart farming technologies and hybrid seeds to enhance production and yield of land. It digitizes the healthcare and medical to early diagnosis of patient's diseases with X-ray machines, healthwatches and MRI machines. It revolutionizes automation industries to foster communication and connectivity among people across the globe. It transforms governance and administration sector to accelerate accountability, fairness and transparency. Artificial intelligence addresses cybercrime, gender based violence, and emergency complaints through Citizen portal, e-complaint cell and facial identification of offenders. It regulates the traffic laws and regulations through digital connected camera and surveillance system. It monitors weather forecasts and erratic weather changes to ensure preparedness plans to avoid losses and disruptions. Artificial intelligence promotes effective service delivery and equal facilities to citizens. It transforms the governance and management to easily regulate the affairs of state meaningfully. It enhances trade, business and economic stability of developed nations. Therefore, the relevance of Artificial intelligence in the modern era lies in its dual capacity, accelerating opportunities while magnifying ethical dilemmas.