



PARLIAMENT
OF THE REPUBLIC OF SOUTH AFRICA



The use of Artificial Intelligence in Parliaments

March 2026

**PARLIAMENTARY
RESEARCH UNIT (PRU)**

WWW.PARLIAMENT.GOV.ZA

TABLE OF CONTENTS

LIST OF ACRONYMS	5
1. INTRODUCTION	6
2. PROBLEM STATEMENT	7
3. LITERATURE REVIEW	7
3.1 What Is Artificial Intelligence?	7
3.1.1 Fourth Industrial Revolution.....	9
3.1.2 Artificial Intelligence in the Fourth Industrial Revolution.....	9
3.1.3 Factors that drive AI use.....	10
3.1.4 Capabilities and Limitations of AI in Language, Vision, and Robotics	11
3.1.5 Types of AI	11
3.1.6 Opportunities.....	12
3.1.7 Risks and Challenges.....	13
3.2 Legislative and governance framework for AI in Parliaments	15
3.3 Guidelines for AI in Parliaments	16
4. METHODOLOGY	19
4.1 Research Design	19
4.2 Data Collection Methods	20
4.3 Case Selection.....	20
4.4 Analytical Framework.....	20
4.5 Researchers' Role.....	20
4.6 Limitations of the study	20
5. THE USE OF AI IN PARLIAMENTS: REGIONAL AND INTERNATIONAL PERSPECTIVES	21
5.1 Regional.....	22
5.1.1 South Africa.....	22
5.1.1.1 Chatbot Pilot for MPs	22
5.1.1.2 SADC Parliamentary Forum Resolutions	22
5.1.1.3 AI for Interpretation Challenges.....	22
5.1.1.4 South African Government Strategy and Policy.....	22
5.1.1.5 AI use in South Africa.....	23
5.1.1.6 AI Governance in South Africa	23
5.1.1.7 The Continental Artificial Intelligence Strategy	24
5.1.1.8 South Africa's Alignment with the AU Continental AI Strategy.....	25
5.1.1.9 Microsoft Copilot	26

5.1.2	Ethiopia	26
5.1.2.1	Implications for the Ethiopian Parliament	27
5.1.3	Kenya	28
5.1.4	Angola	29
5.1.4.1	Innovation Ecosystem and Capacity Building	30
5.1.4.2	Challenges	31
5.1.4.3	Opportunities.....	31
5.1.5	Uganda.....	31
5.1.6	Botswana	32
5.1.6.1	Tax non-compliance.....	36
5.1.6.2	AI Readiness in Botswana	36
5.1.6.3	Intelligence and Data Privacy.....	40
5.1.7	Morocco	42
5.1.8	Namibia	42
5.1.8.1	Use of AI in the Parliamentary Context.....	43
5.1.8.2	Challenges and Risks	44
5.1.8.3	Opportunities and Lessons for Other Parliaments in the Region	44
5.2	International	45
5.2.1	United Kingdom.....	45
5.2.1.1	AI Governance in the UK Parliament.....	45
5.2.1.2	Artificial Intelligence Guide for Members of the UK Parliament.....	46
5.2.1.3	Generative AI	46
5.2.1.4	Microsoft's Copilot.....	47
5.2.2	Brazil	47
5.2.2.1	The Brazilian Artificial Intelligence Strategy.....	47
5.2.2.2	Legislation, Regulation and Ethical Use	47
5.2.2.3	AI Governance	48
5.2.2.4	International Aspects.....	48
5.2.2.5	Qualifications for Digital Future (Education)	49
5.2.2.6	Workforce Training.....	49
5.2.2.7	Application in the Productive Sectors	50
5.2.2.8	Application in Public Power	50
5.2.2.9	Public Security	50
5.2.2.10	Critique Of Brazilian Ai Legislative Framework.....	50
5.2.3	Iran.....	52
5.2.4	Russia	52
5.2.4.1	Key Stakeholders and Institutions	53
5.2.4.2	Military and Security Applications.....	53

5.2.4.3	Challenges	53
5.2.4.4	Opportunities.....	54
5.2.5	China.....	54
5.2.6	Canada.....	56
5.2.6.1	AI in Canada	58
5.2.6.2	AI governance practices.....	59
5.2.6.3	Deploying AI.....	60
5.2.7	Germany	62
5.2.8	Italy	63
5.2.8.1	Legislative and Policy Context	63
5.2.8.2	Institutional Arrangements.....	63
5.2.8.3	AI Use Cases in Parliament	64
5.2.8.4	Challenges and Risks	64
5.2.8.5	Opportunities and Lessons for Other Parliaments	65
6.	DATA ANALYSIS.....	65
6.1	Document Analysis	65
6.2	Thematic Analysis.....	65
7.	RESULTS AND FINDINGS	66
8.	RECOMMENDED AI TOOLS	67
9.	STRATEGIC RECOMMENDATIONS ON AI INTEGRATION	69
10.	ISSUES FOR CONSIDERATION FOR PARLIAMENT	70
11.	ISSUES FOR CONSIDERATION ON THE USE OF COPILOT	72
12.	REFERENCES	73

LIST OF ACRONYMS

4IR:	Fourth Industrial Revolution
AGI:	Artificial General Intelligence
AgID:	Agenzia per l'Italia Digitale (Agency for Digital Italy)
AI Act:	European Union Artificial Intelligence Act
AI:	Artificial Intelligence
AIISA:	AI Institute of South Africa
ANI:	Artificial Narrow Intelligence
ASI:	Artificial Super Intelligence
AU:	African Union
C4ISR:	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
CAC:	Cyberspace Administration of China
CAIR:	Centre for Artificial Intelligence Research
CC:	Cloud Computing
CEO:	Chief Executive Officer
CPS:	Cyber-Physical Systems
CS:	Cybersecurity
DCDT:	Department of Communications and Digital Technologies (South Africa)
DIS:	Directorate of Intelligence and Security (Botswana)
DL:	Deep Learning
DPAs:	Data Protection Authorities
EAI:	Ethiopian Artificial Intelligence Institute
EBIA:	Brazilian Artificial Intelligence Strategy
ECPRD:	European Centre for Parliamentary Research and Documentation
EU:	European Union
FRIA:	Fundamental Rights Impact Assessment
GDP:	Gross Domestic Product
GDPR:	General Data Protection Regulation (EU)
HAK:	Hansard Association of Kenya
HPC:	High-Performance Computing
ICT:	Information and Communications Technology/Technologies
IDEA:	Inclusive Digitalisation in Eastern and Southern Africa
IoT:	Internet of Things
IPU:	Inter-Parliamentary Union
KPIs:	Key Performance Indicators
LEO:	Low Earth Orbit
LM:	Limited Memory
LLMs:	Large Language Models
MI:	Machine Intelligence
ML:	Machine Learning
MPs:	Members of Parliament
NLP:	Natural Language Processing
NPC:	National People's Congress (China)
OECD:	Organisation for Economic Cooperation and Development
PC4IR:	Presidential Commission on the Fourth Industrial Revolution
POPIA:	Protection of Personal Information Act (South Africa)

R&D:	Research and Development
RPA:	Robotic Process Automation
SADC:	Southern African Development Community
SDGs:	Sustainable Development Goals
SIM:	Subscriber Identity Module
SMEs:	Small and Medium-sized Enterprises
STEM:	Science, technology, engineering and mathematics
UAVs:	Uncrewed Aerial Vehicles (drones)
UHC:	Universal Health Coverage
UNCTAD:	United Nations Conference on Trade and Development
WFD:	Westminster Foundation for Democracy

1. INTRODUCTION

Artificial Intelligence (AI) offers Parliaments transformative opportunities to improve efficiency, transparency, and citizen engagement.¹ As a central force in the Fourth Industrial Revolution (4IR), AI is reshaping how societies function across sectors such as healthcare, agriculture, manufacturing, finance, and education.² Its ability to process vast data, identify patterns, and generate insights makes it a key driver of innovation and productivity.³

The Inter-Parliamentary Union (IPU) emphasises that Parliaments must not only legislate and oversee AI but also adopt it responsibly within their own operations.⁴ To support this, the IPU developed a comprehensive framework that highlights governance, ethics, and risk management as essential pillars for AI integration.⁵

AI technologies including cyber-physical systems (CPS), cybersecurity (CS), cloud computing (CC), and the Internet of Things (IoT) are influencing how people interact with information globally.⁶ Parliaments are encouraged to enhance legislative services without compromising institutional traditions or the reliability of parliamentary information.⁷

Failure to integrate AI may result in Parliaments becoming disconnected from the populations they serve.⁸ While Parliaments in the global North have made significant progress, African legislatures face challenges due to limited academic literature and implementation capacity.⁹

AI is broadly defined as machine-based systems that generate outputs such as predictions, recommendations, or decisions that influence real or virtual environments.¹⁰ It also serves as a supportive tool for human capacity, including infrastructure development.¹¹

¹ Inter-Parliamentary Union (2024a).

² Ibid.

³ Inter-Parliamentary Union (2025).

⁴ Quteishat et al. (2024).

⁵ Quteishat et al. (2024); Collins et al. (2021).

⁶ United Nations (2022).

⁷ Smith and Jones (2023).

⁸ Ibid.

⁹ Ayeni et al. (2024).

¹⁰ United Nations Educational, Scientific and Cultural Organization (2025).

¹¹ Stryker (2025).

2. PROBLEM STATEMENT

AI is increasingly being adopted in Parliaments to enhance efficiency, transparency, and public engagement. It automates tasks such as transcription and data analysis, improves access to information, and supports better decision-making. However, its integration raises ethical concerns, particularly around human oversight, algorithmic transparency, data protection, and bias.

AI adoption varies significantly across countries. Advanced democracies like Germany are effectively using AI to modernise parliamentary operations and engage citizens. Emerging democracies such as Morocco face challenges due to limited resources, governance structures, and socio-economic disparities.¹²

This disparity underscores the need to understand how contextual factors, including political environments, institutional readiness, and digital capabilities, affect AI adoption in parliamentary systems. Without comparative insights, opportunities to use AI for developmental benefits may be missed.¹³

AI can be applied across various parliamentary functions. These include, but are not limited to:

- Administrative tasks;
- Legislative processes;
- Public engagement; and
- Transparency initiatives.

Some Parliaments have already implemented AI-based applications, while others are still exploring possibilities. Each Parliament must tailor its approach based on its culture, resources, and timing constraints.

This study thus identifies which AI tools are being utilised in Parliaments. It sought to ascertain the opportunities and risks associated with AI technologies in parliamentary settings, including algorithmic transparency, data protection, bias, and automation of legislative processes.¹⁴

3. LITERATURE REVIEW

3.1 What Is Artificial Intelligence?

AI refers to technologies that enable machines especially computers to perform tasks that typically require human intelligence, such as reasoning, learning, problem-solving, and even creativity. AI systems can interpret images (computer vision), understand and generate speech and text (natural language processing), and navigate environments autonomously (robotics). Algorithms power these capabilities, particularly those used in machine learning (ML) and deep learning (DL), which allow systems to learn from data and improve over time.¹⁵

¹² Sangwan and Bansal (2024).

¹³ Licht (2025).

¹⁴ Chen (2021); van den Hoven et al. (2022).

¹⁵ Google Cloud (2025); UK Parliament (2023).

AI is broadly defined as the simulation of human intelligence processes by machines.¹⁶ Definitions vary, with some emphasising algorithmic logic and others focusing on autonomous behaviour and foresight.¹⁷ The Brazilian Draft Bill 21/2020, for example, defines AI as a computational system that can learn, interpret, and interact with its environment to make decisions using techniques like supervised learning and Bayesian inference.¹⁸

*....the system based on computational process that, from a set of objectives defined by humans, can, through the processing of data and information, learn to perceive and interpret the external environment, as well as interact with it, making predictions, recommendations, classifications or decisions, and using techniques such as, but not limited to, 1- machine learning systems, including supervised, unsupervised, and reinforcement learning; 11- systems based on knowledge or logic; 111- statistical approaches, Bayesian inference, research and optimization methods.*¹⁹

The above definition aligns with the Brazilian Artificial Intelligence Strategy (EBIA), which defines AI as a machine-based system that, for a given set of objectives defined by a human, can make predictions, recommendations, or decisions that influence real or virtual environments. In addition, AI systems are designed to operate at varying levels of autonomy. Also, AI systems consist of three main elements: sensors, operational logic, and actuators. The sensors collect data from the environment, which is processed by operational logic to provide outputs to the actuators, which, in turn, change the environment's state.²⁰

AI systems rely on large datasets to identify patterns and make predictions. These datasets can be structured (e.g., financial transactions) or unstructured (e.g., images or speech). Algorithms are central to AI, guiding how data is processed and decisions are made.²¹

In business, AI is used for analytics, forecasting, categorisation, and intelligent data retrieval. It supports optimisation, pattern recognition, and machine translation.²² Effective AI deployment requires robust infrastructure, including cloud computing, broadband, and IoT technologies.²³

AI is also transforming governance and public institutions. Parliaments that embraced digital tools during the COVID-19 pandemic maintained their legislative functions through remote work and automation.²⁴ AI has improved administrative efficiency, document management, multilingual translation, and public engagement. For example, it helps schedule meetings, archive documents, and translate parliamentary content in real time.²⁵

AI enhances transparency by enabling automated transcription and translation of

¹⁶ Craig et al. (2024).

¹⁷ Nilsson (2009); High Level Group on Artificial Intelligence Group (2019).

¹⁸ Silva, Rodrigues, Roman, Brandao, Santarem & Viera (2022).

¹⁹ Ibid.

²⁰ Ministry of Science, Technology and Innovation (2021).

²¹ Collins et al. (2021); Google Cloud (2025).

²² Global Information Society Watch (2019).

²³ Azaroual (2024).

²⁴ Ministry of Science, Technology and Innovation (2021); Inter-Parliamentary Union (2025).

²⁵ Ministry of Science, Technology and Innovation (2021); Inter-Parliamentary Union (2025).



parliamentary proceedings, fostering public trust. It also supports visual communication through infographics and multimedia content, making legislative processes more accessible.²⁶

3.1.1 Fourth Industrial Revolution

The Fourth Industrial Revolution (4IR) marks a transformative era where physical, digital, and biological systems converge, driven by technologies such as AI, robotics, and the Internet of Things (IoT).²⁷ Coined by Klaus Schwab, founder of the World Economic Forum, 4IR describes a world in which individuals seamlessly navigate between digital and physical realities through connected technologies.²⁸

Historically, the first industrial revolution (1760) introduced mechanised production via steam engines, shifting societies from agrarian to industrial economies.²⁹ The second revolution (circa 1900) leveraged oil and electricity for mass production, while the third (from 1960) used electronics and information technology to automate processes.³⁰ The 4IR builds upon these, introducing innovations like computer-generated product (CGP) design and 3D printing, which create solid objects layer by layer.³¹

The pace and scale of change in the 4IR are unprecedented. It is reshaping governance, economies, and societal structures.³² AI, as a central force, enables automation, advanced data analysis, and intelligent decision-making across sectors. Its integration into public institutions, including Parliaments, is revolutionising legislative processes, enhancing efficiency, and improving citizen engagement.

Unlike previous revolutions, 4IR is characterised by exponential technological growth and systemic transformation. It is not just about new tools, but about rethinking how institutions operate and interact with society. The fusion of technologies blurs traditional boundaries, requiring adaptive governance and ethical frameworks to manage risks and ensure inclusive development.

The 4IR thus represents a paradigm shift, with AI at its core, offering vast opportunities, while demanding thoughtful regulation and strategic integration, especially in democratic institutions such as Parliaments.

3.1.2 Artificial Intelligence in the Fourth Industrial Revolution

AI has evolved from rule-based systems to advanced machine learning and neural networks, enabling it to analyse vast datasets, recognise patterns, and make informed decisions across sectors such as healthcare, finance, manufacturing, and entertainment.³³

The 4IR is unprecedented in speed and scope, surpassing previous industrial and digital

²⁶ Ayeni et al. (2024); Inter-Parliamentary Union (2025).

²⁷ Tableau (2025); Xu et al. (2018).

²⁸ Ibid.

²⁹ Ibid.

³⁰ Inter-Parliamentary Union (2025).

³¹ Ibid.

³² Marwala (2024).

³³ Oosthuizen (2022).

revolutions.³⁴ It is characterised by the convergence of digital, physical, and biological technologies such as IoT, robotics, nanotech, and AI that amplify each other's impact.³⁵

AI is central to 4IR, driving innovations such as autonomous vehicles, smart cities, and personalised medicine. Its ability to process massive data at high speed makes it a cornerstone of technological integration.³⁶

Key drivers of AI in 4IR include:

- **Technological advancements:** Growth in computing power (e.g., Moore's Law) and development of complex algorithms.³⁷
- **Machine learning:** Algorithms that adapt and predict, enabling applications in image recognition and natural language processing.³⁸
- **Big Data:** The explosion of data from IoT and social media enhances AI's analytical capabilities.³⁹

Economic imperatives also fuel AI adoption. Governments and industries view AI as essential for competitiveness and growth. Countries like China and the European Union (EU) are investing heavily in AI R&D.⁴⁰ Businesses use AI for automation, predictive analytics, and strategic decision-making.⁴¹

AI's transformative role in 4IR is evident in its impact on work, decision-making, and connected technologies. However, ethical concerns such as fairness, transparency, and job displacement must be addressed. The future of AI in 4IR depends on refining algorithms, mitigating bias, and implementing robust governance frameworks, including integration with emerging technologies such as quantum computing and edge computing.

3.1.3 Factors that drive AI use⁴²

Four key factors drive recent developments in AI. First, the availability and quality of training data have significantly increased, enabling machine learning systems to be trained on massive datasets. For example, the large language model behind ChatGPT 3.5 was trained on 300 billion words from the internet. High-quality data correctly labelled, accessible, reusable, explainable, and unbiased is essential for advancing AI capabilities.

Second, computing power has grown exponentially. A foundation model released in 2020 used 600,000 times more computing power than a notable model from 2012. This surge has raised environmental concerns, prompting improvements in resource efficiency and parallel processing.

Third, specialised hardware such as graphical processing units (GPUs) and accelerator chips

³⁴ Schwab (2016); Makriadis (2017).

³⁵ Ibid.

³⁶ Ibegbulum et al. (2023).

³⁷ Mackie (2020); Xu et al. (2020); Bennigan et al. (2021).

³⁸ Ukoba and Jen (2022); Sanni et al. (2024).

³⁹ Ibegbulum et al. (2023).

⁴⁰ Feijóo et al. (2020); Sanni et al. (2022).

⁴¹ Kennedy (2020); Luong and Redasiuk (2022).

⁴² Inter-Parliamentary Union (2025); Centre for Security and Emerging Technology (2020).

is now used to train large models. These chips process data across billions of units in parallel, a crucial capability for handling the vast data demands of Large Language Models (LLMs).

Finally, cloud computing has become essential due to the high cost and scarcity of advanced hardware. Many organisations rely on cloud providers' pooled computing resources to train and run AI models on demand.

Together, these drivers have enabled rapid progress in AI capabilities and applications across sectors.

3.1.4 Capabilities and Limitations of AI in Language, Vision, and Robotics⁴³

AI has advanced significantly across three key domains: language processing, computer vision, and robotics. In language processing, LLMs have enabled machines to perform tasks such as speech-to-text conversion, summarisation, translation, and chatbot interactions. These models are increasingly capable of generating human-like language, making it difficult to distinguish between machine-generated and human-authored text.

However, LLMs face limitations, including difficulty handling linguistic diversity, inconsistent phrase construction, and challenges with contextual understanding. Moreover, their development demands substantial computational resources.

In the realm of computer vision, AI has improved capabilities in object recognition, medical imaging, and autonomous navigation. These systems benefit from large datasets that help them interpret visual information, although training remains labour-intensive and requires carefully labelled data.

Robotics has also seen transformative integration of AI, enhancing robots' ability to learn, adapt, and perform complex tasks. For instance, AI-powered robots assist in surgical procedures with high precision. Nonetheless, real-world deployment poses challenges, such as navigating unpredictable environments and ensuring safety. These require extensive data collection and robust system design.

Overall, while AI continues to revolutionise these domains, its limitations underscore the need for cautious, ethical implementation, especially in sensitive environments such as healthcare and governance.

3.1.5 Types of AI

AI is categorised into three primary types: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), and Artificial Super Intelligence (ASI). ANI is task-specific, lacks learning capabilities, and is commonly used in parliamentary settings for functions such as automated transcription, document summarisation, and chatbots.⁴⁴ AGI, capable of mimicking human reasoning, and ASI, which surpasses human intelligence, remain largely theoretical and ethically complex for parliamentary use.⁴⁵

⁴³ Inter-Parliamentary Union (2025).

⁴⁴ Research ICT Africa (2025).

⁴⁵ Jaldi (2023).

Machine Learning (ML) and Deep Learning (DL) are key subfields of AI. ML enables systems to learn from data without explicit programming, while DL uses neural networks for complex tasks like voice and image recognition.⁴⁶

Several other AI types exist:

- **Reactive Machines:** Basic systems that analyse current data without memory, e.g., assembly line robots.⁴⁷
- **Limited Memory (LM):** Systems that learn from past data, seen in virtual assistants like Siri and recommendation engines.⁴⁸
- **Theory of Mind AI:** Experimental AI aiming to understand human emotions and predict interactions.⁴⁹
- **Self-aware AI:** A conceptual form with human-like consciousness and emotional intelligence.
- **Hybrid AI:** Combines multiple AI types for flexibility, used in autonomous vehicles and commercial virtual assistants.⁵⁰

Parliaments primarily use ANI and LM for administrative efficiency and public engagement. ML and DL enhance capabilities in legislative analysis and decision support. However, advanced AI types like AGI and ASI pose ethical and technological challenges, limiting their current applicability in governance contexts.

These classifications help guide responsible AI integration in democratic institutions, balancing innovation with oversight and ethical considerations.

3.1.6 Opportunities

AI offers transformative potential for parliamentary operations, enhancing efficiency, transparency, and public engagement. While only a limited number of parliaments globally have fully embraced AI, its integration is increasingly seen as essential to maintaining relevance in democratic governance.⁵¹

Key opportunities include:

- **Legislative Research and Analysis:** AI can assist parliamentary staff in analysing vast legislative documents, identifying patterns, and supporting evidence-based policymaking.⁵²
- **Trend Analysis:** AI enables the review of legislative effectiveness and public sentiment, helping identify priorities and key performance indicators (KPIs).⁵³
- **Duplication Detection:** Machine learning can compare proposed bills with existing

⁴⁶ Sarker (2021).

⁴⁷ IBM Data and AI Team (n.d.).

⁴⁸ Ibid.

⁴⁹ Wang, Walsh, Si, and Kephart (2024).

⁵⁰ Ibid.

⁵¹ Inter-Parliamentary Union (2025).

⁵² Ibid.

⁵³ Ibid.

laws to prevent redundancy and contradictions.⁵⁴

- **Legislative Support:** AI can assess the impact of legislation, map amendments, and identify relevant experts and resources to improve bill quality.⁵⁵
- **Administrative Efficiency:** AI automates routine tasks like scheduling, document management, and translation, freeing up resources for higher-value activities.⁵⁶
- **Public Engagement and Transparency:** AI tools such as chatbots, sentiment analysis, and multimedia content creation foster better communication between Members of Parliament (MPs) and citizens.⁵⁷
- **Data Analysis and Reporting:** AI can generate reports, visualise legislative data, and provide real-time insights into parliamentary activities.⁵⁸
- **Democratic Enhancement:** AI supports inclusive participation, efficient decision-making, and improved access to government services.⁵⁹

These capabilities position AI as a strategic asset for modernising parliamentary functions and strengthening democratic institutions.

3.1.7 Risks and Challenges

The integration of AI in parliamentary systems presents both significant opportunities and considerable risks. While AI can enhance efficiency, transparency, and public engagement, it also introduces complex challenges that require careful governance and ethical oversight.

A primary concern is the potential misuse or misapplication of AI, especially in countries with limited infrastructure and technical expertise. Without robust regulation, AI systems may reinforce existing biases, compromise privacy, and be exploited for political manipulation.⁶⁰ The opaque nature of AI algorithms often referred to as the “black box” problem complicates transparency and accountability, making it difficult for legislators and the public to understand or audit AI decisions.⁶¹

Ethical considerations are paramount. Poorly designed AI systems risk exacerbating discrimination and undermining democratic fairness.⁶² Privacy is another critical issue, as AI’s ability to process vast amounts of personal data requires stringent protections against unauthorised access.⁶³ Additionally, the digital divide may deepen inequalities in political representation and citizen participation.⁶⁴

The European Parliament outlines several societal benefits of AI, including improved healthcare, safer transportation, enhanced education, and more efficient public services. AI can also strengthen democracy by combating disinformation and improving access to quality information.⁶⁵

⁵⁴ Harris (2024).

⁵⁵ Harris (2024); Inter-Parliamentary Union (2025).

⁵⁶ Lopes (2021); Petrov (2023); European Parliament (2024).

⁵⁷ Stuurman and Lachau (2022); European Parliament (2024); Stuurman and Lachau (2022).

⁵⁸ Craig et al. (2024).

⁵⁹ Read (2023).

⁶⁰ Mendes (2022); Kovalev (2023).

⁶¹ Licht (2025).

⁶² Ibid.

⁶³ European Parliament (2024).

⁶⁴ Maatsch and Miklin (2021).

⁶⁵ Marr (2023).

However, the risks are equally significant. These include unclear liability for AI-caused harm, lack of transparency in deep learning models, algorithmic bias, privacy violations, ethical dilemmas, security threats (e.g., autonomous weaponry), and the concentration of power among a few tech corporations.⁶⁶ Overreliance on AI could also erode human creativity and critical thinking.

AI poses specific threats to democratic institutions. Generative AI can flood the information space with disinformation, undermining public trust and freedom of expression. It can facilitate “astroturfing” fake grassroots campaigns and expand surveillance capabilities, threatening civil liberties.⁶⁷ Deepfakes can manipulate electoral processes and political discourse, enabling actors to discredit genuine content or fabricate convincing falsehoods.⁶⁸

Social cohesion is at risk as biased AI outputs may marginalise minority groups and amplify hate speech. The global concentration of AI development in wealthy nations could widen economic disparities, particularly affecting less resilient democracies with limited digital literacy and regulatory capacity.⁶⁹ Surveillance technologies, often supplied by foreign firms, are increasingly adopted by governments, raising concerns about their potential for authoritarian misuse.⁷⁰

While AI offers transformative potential, its deployment in parliaments must be guided by ethical frameworks, transparency, and inclusive governance to safeguard democratic integrity.

Notwithstanding the aforementioned opportunities, if guardrails are missing, AI poses a substantive threat to democracy and humanity. The same features that empower citizens could be misused to, among others, spread online hate speech, disinformation, bias, harassment and cyberbullying.⁷¹ As a result, Parliaments face the challenge of crafting legislation that balances freedom of expression with the need to curb harmful online activities. For instance, legislation targeting harmful speech must be finely tuned to avoid inadvertently suppressing lawful and legitimate speech. AI has enabled both democratic and malicious actors with powerful new tools to venture either way.

Figure 1 below provides a depiction of negative usage of AI that requires Parliaments to keep guard on:

⁶⁶ Ibid.

⁶⁷ Read (2023).

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Ibid.

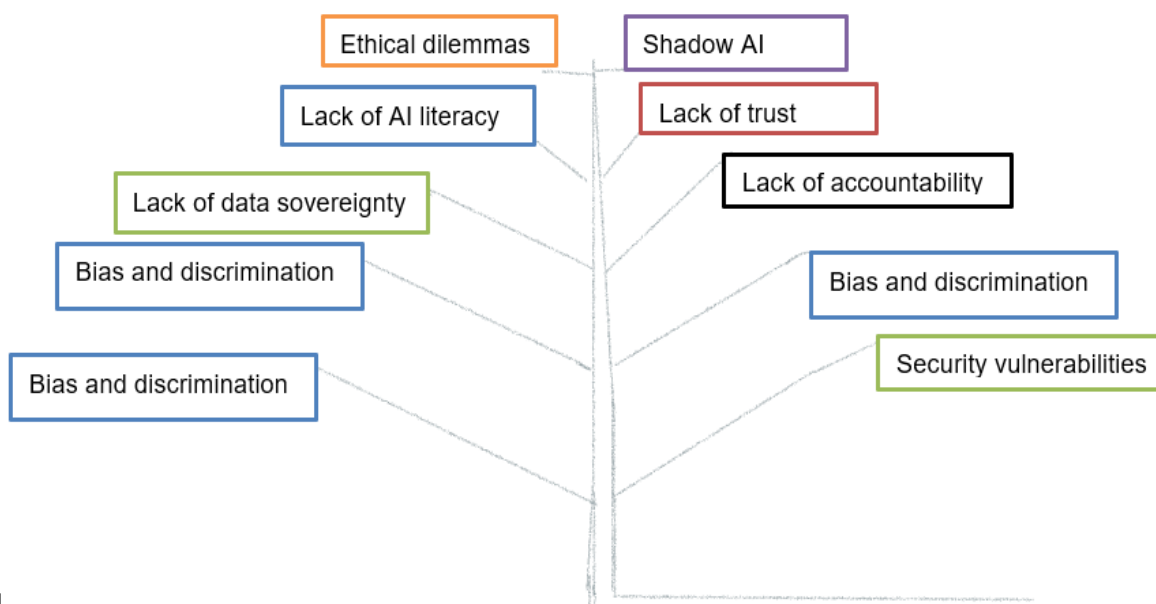


Figure 1: Depiction of negative usage of AI (Adapted from: IPU, 2025)

3.2 Legislative and governance framework for AI in Parliaments

AI is advancing rapidly.⁷² From generative language models like ChatGPT to advances in medical screening technology, policymakers and developers alike believe it could deliver fundamental change across almost every area of our lives. But such a change is not without risk. Debate is ongoing on how best to regulate these innovative technologies, and differences of approach have already emerged internationally as countries worldwide examine how to adapt.

To govern AI use, many Parliaments reference ethical guidelines, codes of conduct and laws. Internationally, the IPU and Westminster Foundation have published model frameworks. The IPU guidelines advise Parliaments to align with national laws and global AI standards, and to develop internal policies (e.g., Italy’s Chamber of Deputies adopted a generative AI code of conduct that ties into broader EU and G7 AI strategies). The IPU’s generic risk guidelines explicitly list key issues Parliaments must consider (bias, privacy, transparency, etc.).⁷³ Likewise, the WFD’s 2024 AI Guidelines stress ethical principles, privacy, governance and capacity-building for Parliaments. The legislative landscape regarding AI in Angola is still developing. Current efforts focus on establishing foundational policies and engaging stakeholders in dialogue about the regulatory needs for AI deployment in governance.⁷⁴ In Russia, existing legal frameworks such as data privacy laws and AI ethics guidelines provide a basis for AI governance. However, specific regulations tailored to parliamentary applications are still under consideration, aiming to balance innovation with oversight.⁷⁵ Regionally and nationally, legislative bodies are also acting. The SADC Parliamentary Forum’s recent

⁷² UK Parliament (2023).

⁷³ ipu.org

⁷⁴ Almeida (2022).

⁷⁵ Sokolov (2023).

communiqués call for regional AI policies reflecting African values. In the U.S., the House Committee on Administration has issued a series of AI strategy reports, and the Senate Sergeant-at-Arms has authorised controlled use of AI tools (ChatGPT, Bard, etc.) for research. Russia's Duma has formed working groups and is exploring targeted regulation of AI, focusing on areas such as crime prevention (e.g., making malicious AI use an aggravating factor). Meanwhile, Parliaments worldwide remain mindful of new AI laws, such as the EU's AI Act, as well as national data/privacy rules.

The creation of a legislative and governance framework is essential for ensuring that AI is deployed reliably and responsibly within Parliament. These frameworks typically include legal provisions that categorise AI applications by risk level and require adherence to standards on fairness, transparency, and privacy.⁷⁶ Policies governing data outline the ethical collection, storage, and usage of information managed by AI systems, while procedural standards promote continuous assessment and human oversight.⁷⁷

Moreover, capacity-building policies require training and skill development for lawmakers and parliamentary personnel to encourage informed use of AI tools. The European Union's Artificial Intelligence Act exemplifies a coordinated regulatory approach that imposes strict requirements on high-risk AI, while promoting innovation.⁷⁸

For better application of AI, the following are some of the considered governance frameworks that Parliaments need to consider for restricting harm in AI:⁷⁹

- There should be robust data protection laws to ensure that sensitive legal information is safeguarded, which provides **data privacy and security**, as Malawi enacted the Data Protection Law.
- There should be measures to ensure **bias mitigation** in AI algorithms, such as using diverse datasets and conducting regular audits of AI systems.
- There should be clearly defined mechanisms to regulate AI to ensure **transparency and accountability** for all parties, including the public, to know the frames of reference.
- There should be a standard frame of reference, i.e. the Pan-African Collaboration, which is in harmony with ethical standards for AI and encourages uniformity and maximising greater usage of AI.⁸⁰

3.3 Guidelines for AI in Parliaments

Operational guidelines convert governance principles into practical actions to support the ethical use of AI in legislative contexts. Transparency guidelines require clear disclosures of AI system functionalities and decision-making processes to both legislators and the public.⁸¹ Inclusiveness measures prioritise the development of AI tools that minimise bias and support diverse populations, thereby ensuring fair political representation.⁸² Accountability protocols

⁷⁶ Connally (2022).

⁷⁷ Fitsilis (2021).

⁷⁸ Connally (2022).

⁷⁹ Munung, Staunton, Mazibuko, Wall and Wonkam (2024).

⁸⁰ Ibid.

⁸¹ Connally (2022).

⁸² Fitsilis (2021).

set forth processes for impact evaluation, auditing, and human oversight to identify and address unintended consequences.

Capacity development initiatives emphasise AI education and stakeholder involvement, fostering a legislative environment that can navigate AI's complexities. Strict data protection standards conform to international human rights regulations to protect sensitive data. Collaborating with technical experts, civil society organisations, and global entities ensures that AI governance in Parliaments draws on a wide range of perspectives and the latest best practices.⁸³ Altogether, these guidelines strive to harmonise innovation with democratic protections, enabling Parliaments to leverage AI, while preserving public trust and legitimacy.

There may be different approaches for developing guidelines. The emphasis may be on transparency, accountability, and ethical considerations with limited implementation.⁸⁴ Some countries may adopt a more comprehensive approach aligned with national AI strategies, focusing on security, privacy, and ethical standards to govern AI applications in governmental and parliamentary contexts.⁸⁵

Some of the guidelines for AI can be summed up as follows:⁸⁶

- **Accountability and transparency:** Ensure understandable, traceable, and justifiable AI decisions and AI applications.
- **Autonomy of the decision-maker:** Maintain the autonomy of the decision-maker without manipulation.
- **Ethical and responsible AI use:** Uphold ethical standards and prevent misuse or bias in AI applications.
- **Human oversight and explicability:** Maintain human control over AI systems but also provide an explanation oriented to different audiences (e.g., legal operators, citizens).
- **Risk mitigation and fundamental rights impact assessment (FRIA):** Identify and address potential risks associated with AI implementation and detected by the FRIA.
- **Public trust:** Build and maintain public confidence in parliamentary institutions that use AI tools and services.
- **Inclusivity and diversity:** Promote impartiality and equality in parliamentary administrative and decision-making processes.
- **Adaptation to technological advances:** Enable Parliaments to leverage AI advancements for improved operational efficiency and effectiveness.
- **Interparliamentary cooperation:** Facilitate harmonisation on global AI policies and regulations for Parliaments.
- **Public engagement:** Involve citizens and societal stakeholders in discussions and decisions about AI in Parliament and AI integration in the parliamentary workspace.
- **Legal compliance:** Ensure AI implementations in Parliament adhere to relevant laws and regulations.

About two decades ago, social media platforms revolutionised citizens' interaction with information by fostering access, public debate, and political awareness. At the same time, they

⁸³ Inter-Parliamentary Union (2022).

⁸⁴ Fernandes (2022).

⁸⁵ Volkov (2023).

⁸⁶ Fitsilis et al. (2024).

have facilitated the spread and consumption of online disinformation, undermining citizens' ability to make informed decisions about who to trust and vote for, thereby threatening democracies and raising doubts about the integrity of democratic processes. To counter this threat, the IPU has released the results of its survey conducted in Parliaments. The outcomes of its survey assert that 87% of the Parliaments have increased their resilience and that digital technologies have gained in importance and are seen as strategic to the future of Parliament, while 80% of Parliaments state that digital tools are now more trusted by Members and that 88% agree that Members are increasingly receptive to new ways of working.⁸⁷ Given the significance and justification of the institution of Parliament in safeguarding democracy, IPU has submitted that AI brings numerous advantages, and the following are some of its proposed guidelines for integrating AI in Parliaments:

AI technologies such as natural language processing (NLP) and robotic process automation (RPA) can **automate administrative tasks** such as scheduling meetings, drafting agendas and managing documentation. IPU further states that delegating these repetitive tasks to AI systems could free up time and resources for high-value activities, thereby increasing productivity and efficiency.⁸⁸ Moreover, AI systems can be used to schedule parliamentary meetings and sessions, including identifying available slots, while considering participants' availability and meeting room availability, thereby avoiding coordination issues and inefficiencies. IPU further asserts that AI can be used to **produce multimedia content, such as short video summaries, which** can then be posted on social media for broader public consumption. These multimedia clips can focus on the critical part of the speeches of public representatives in Parliaments with multilingual subtitles provided.⁸⁹ The outcome of this intervention can make Parliament more accessible virtually to those in the peripheries.

IPU also asserts that Parliaments often generate and manage copious amounts of documents, such as bills, committee reports, communications, and session minutes, and that, as such, AI systems can be used to manage documents, including organising, labelling, and archiving for quick search and retrieval when required. In multilingual Parliaments, AI systems can automate translation, enabling the public and public representatives to access information in their preferred language with ease.⁹⁰ For diverse communities, Parliaments should aim to be accessible and respond at all costs; hence, AI can help by enabling Parliaments to produce plain-language summaries of bills, reports, and transcripts that are understandable to ordinary citizens. Making such summaries available can enhance public participation in the legislative process and foster communication between Parliaments and the public.

Also, given that MPs interface with enormous volumes of correspondence as they represent the public, AI can be used to manage digital communication, including classifying received correspondence, identifying the most urgent or relevant items, and assigning them to the appropriate person for processing.⁹¹ In terms of **generating reports and analysing data**, AI can be used in Parliaments to collect and synthesise data, using data visualisation and predictive models to create detailed, easily understandable reports for MPs. This could be another advantageous way for the Parliament to use AI to support its legislators.

⁸⁷ Inter-Parliamentary Union (2025).

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Inter-Parliamentary Union (2025).

⁹¹ Ibid.

Recordings of parliamentary sessions are critical, and, as such, IPU advises that AI can be used to automate the **real-time transcription of parliamentary debates**. When this is done, AI can accurately and rapidly produce transcripts for public consumption. The use of AI for this purpose can empower role players, such as academia, researchers, and government officials, to access parliamentary proceedings without having to consult complete audiovisual recordings. Additionally, noting that Parliaments appropriate budgets, AI can be used to **analyse economic data** to ensure due diligence by the executive and oversight functions they carry out.⁹² Irregular spending, fraud and corruption are often cited as significant threats to the ethos of democracy. Therefore, analysing economic data can be beneficial in several ways, including identifying potential conflicts of interest and ensuring that the public funds are used appropriately.

Another advantage of AI for Parliaments is its ability to **analyse sentiment in public spaces**, which can be used to monitor social media and other online platforms to prepare Parliament's response to public concerns.⁹³ The use of AI for this purpose can enrich Parliament's understanding of pertinent issues, enabling it to escalate them to the floor of the Houses of Parliament for executive response. More analyses of public sentiment by Parliaments may prompt researchers to either collaborate or pursue in-depth studies to understand better, and to call for Parliament's intervention, in line with its oversight and accountability mandate.

Moreover, recently organised workshops have hailed AI for the opportunities it offers Parliaments. Equally, some Parliaments are commemorating certain milestones in their existence. In their commemorations, they are reviewing existing legislation they have passed and identifying lacunae or unintended consequences. Advocates of AI for Parliaments argue that one of the better instruments is to make Parliaments work smarter by incorporating AI to review legislation that has been effective and identify lacunae or possible unintended consequences.⁹⁴ In this way, Parliaments do not wait for a court judgment finding that a specific clause/section, or the entire legislation, conflicts with the existing law and is unconstitutional.

4. METHODOLOGY

This study adopted a qualitative research approach to explore the integration and governance of AI within parliamentary institutions across various geopolitical contexts. The methodology is designed to provide a comprehensive understanding of how AI is being implemented, regulated, and perceived in legislative environments, with a particular focus on the South African Parliament.

4.1 Research Design

A comparative case study design was employed to examine the use of AI in selected Parliaments, both regionally and internationally. This design allows for the identification of patterns, best practices, and contextual challenges that influence AI adoption in legislative settings.

⁹² Inter-Parliamentary Union (2025).

⁹³ Ibid.

⁹⁴ Inter-Parliamentary Union (2025).

4.2 Data Collection Methods

The study utilised two primary qualitative data collection techniques:

- **Document Analysis:** A wide range of official documents, policy frameworks, parliamentary reports, AI strategies, and legislative bills were reviewed. These included national AI strategies (e.g., Kenya, Namibia, Brazil), parliamentary resolutions (e.g., SADC Parliamentary Forum), and international guidelines (e.g., IPU, WFD, UNESCO).
- **Thematic Analysis: Key themes were extracted from the documents to identify recurring issues**, opportunities, and risks associated with AI in Parliaments. This included themes such as ethical governance, transparency, public engagement, infrastructure readiness, and legislative oversight.

4.3 Case Selection

Cases were selected based on their relevance to the South African context and the level of AI maturity in that context. The study includes:

- **Regional Cases:** South Africa, Ethiopia, Kenya, Angola, Uganda, Botswana, Namibia, and Morocco.
- **International Cases:** United Kingdom, Canada, Brazil, Russia, Iran, Germany, Italy, and China.

These cases were chosen to reflect a diversity of approaches, from emerging democracies to technologically advanced legislatures.

4.4 Analytical Framework

The analysis was guided by a governance and ethics lens, focusing on:

- The presence and quality of AI policy frameworks.
- The extent of AI integration in parliamentary operations.
- Risks and challenges such as bias, privacy, and democratic erosion.
- Opportunities for enhancing legislative efficiency, transparency, and citizen engagement.

4.5 Researchers' Role

The researchers in this study collected, synthesised, and interpreted the data. The positionality of South African-based researchers informed the study's contextual relevance, particularly in assessing the Parliament's readiness and responsiveness to AI integration.

4.6 Limitations of the study

While this study provides valuable insights into the use and governance of AI in parliamentary settings, several limitations should be acknowledged:

- **Document-Based Scope:** The study relies primarily on publicly available documents, policy frameworks, and reports. This may exclude internal or unpublished data that could offer deeper insights into operational challenges or informal practices within Parliaments.
- **Comparative Constraints:** Although a diverse range of regional and international Parliaments were examined, the selection was not exhaustive. Some Parliaments with potentially innovative AI practices may have been omitted due to limited access to documentation or language barriers.
- **Rapid Technological Evolution:** AI technologies and their applications evolve rapidly. As such, some findings may become outdated as new tools, policies, and governance models emerge after the study period.
- **Contextual Variability:** The political, economic, and technological contexts of the selected countries vary significantly. This limits the generalisability of findings and recommendations, particularly for Parliaments operating under different institutional or resource constraints.
- **Limited Stakeholder Perspectives:** The study does not include interviews or surveys with parliamentary staff, MPs, or AI developers. As a result, it may lack nuanced perspectives on implementation challenges, ethical concerns, and user experiences.
- **Ethical and Legal Ambiguities:** Given the evolving nature of AI regulation, especially in emerging democracies, the study may not fully capture the legal complexities or ethical dilemmas associated with AI deployment in legislative environments.

5. THE USE OF AI IN PARLIAMENTS: REGIONAL AND INTERNATIONAL PERSPECTIVES

The pace and focus of AI adoption vary by region. In regional assemblies (e.g. African and other integration Parliaments), priorities include multilingual access and basic efficiency. The Southern African Development Community (SADC) Parliament, for instance, has made AI translation a centrepiece, given its many official languages. SADC is even drafting a regional AI policy framework to ensure ethical use and relevance to African societies. Similarly, individual national Parliaments, such as Angola's, focus on digital infrastructure (linking the capital with provincial offices) and staff training to support broader tech use. These bodies generally emphasise citizen inclusivity and infrastructure building when deploying AI. By contrast, international or advanced legislatures have begun experimenting with cutting-edge AI research and generative tools.

The European Parliament's Claude-powered "Archibot" exemplifies a sophisticated application aimed at the global public. The U.S. Congress has treated AI as part of its modernisation drive, setting up working groups and pilot programmes for tools like ChatGPT, and deploying bespoke NLP systems (e.g. bill comparators). Moreover, bodies like the IPU offer global guidance: the IPU's 2024 resolution on "AI, democracy and human rights" reflects collective parliamentary concern about AI worldwide. In sum, advanced Parliaments focus on state-of-the-art AI pilots (such as data analytics and generative assistants), while sharing universal lessons through international forums. Yet both levels must balance innovation with oversight.

5.1 Regional

5.1.1 South Africa

AI is gradually being integrated into the workings of the South African Parliament, with several initiatives aimed at improving efficiency, accessibility, and responsiveness.

5.1.1.1 Chatbot Pilot for MPs⁹⁵

The Parliament of South Africa is exploring the use of a **chatbot** to assist MPs with accessing parliamentary information. This AI-powered assistant would allow MPs to ask questions about:

- The status of bills, resolutions, or oversight processes;
- House rules and procedures; and
- Practical matters like meeting venues or travel permissions.

The chatbot would use **Natural Language Processing (NLP)** and conversational interface technology to understand and respond to queries.

5.1.1.2 SADC Parliamentary Forum Resolutions⁹⁶

At the **57th Plenary Assembly of the SADC Parliamentary Forum** held in June 2025, South Africa played a key role in discussions on AI. The theme was *“Harnessing Artificial Intelligence for Effective and Efficient Parliamentary Processes in the SADC Region.”* Key points included:

- Emphasising information and communications technology (ICT) modernisation in Parliament’s rebuilding efforts post-2022 fire;
- Upgrading broadcasting systems and hybrid meeting platforms;
- Strengthening cybersecurity through legal frameworks and institutional capacity; and
- Promoting digital infrastructure and AI education, especially in rural areas.

5.1.1.3 AI for Interpretation Challenges

There are ongoing discussions about using AI to assist with **language interpretation** in Parliament.⁹⁷ Concerns have been raised about whether AI can accurately interpret complex language, idioms, and cultural nuances. Speaker Thoko Didiza and other MPs have expressed caution, highlighting the need for AI systems that respect linguistic diversity and context.

5.1.1.4 South African Government Strategy and Policy

The South African Government has taken proactive steps to integrate AI into national development:

- AI Institute of South Africa (AIISA) was launched in 2022 to coordinate research and innovation.

⁹⁵ IPU (2020).

⁹⁶ Parliament of the Republic of South African (2025).

⁹⁷ TimesLIVE (2024).

- Centre for Artificial Intelligence Research (CAIR) supports academic and applied AI development.
- The Presidential Commission on the Fourth Industrial Revolution (PC4IR) has guided AI policy formulation.
- A National AI Planning Discussion Document outlines strategic priorities, including ethical governance, infrastructure, and talent development.
- The AI Policy Framework (2024) emphasises human-centred AI and seeks to balance innovation with ethical and social considerations.

5.1.1.5 AI use in South Africa

South African companies are actively experimenting with AI technologies. At least **46%** of businesses are piloting AI solutions, particularly in chatbots, robotic process automation, and analytics.⁹⁸ **US\$1.6 billion** has been invested in AI over the past decade, with a focus on IoT, social media, and innovative mobile technologies. Companies see AI as a tool for automation, prediction, and operational efficiency, though concerns about job displacement persist.

AI is being applied to address key challenges in South Africa:

- **Healthcare:** AI supports diagnostics, patient record management, and personalised treatment recommendations.
- **Education:** AI helps with curriculum design, personalised learning, and resource creation for under-resourced schools
- **Financial Inclusion:** AI-driven tools are improving access to banking and credit services.
- **Agriculture:** AI is used for crop monitoring, yield prediction, and supply chain optimisation.

5.1.1.6 AI Governance in South Africa

AI remains unregulated mainly in South Africa.⁹⁹ Existing legislation regulates some activities conducted by organisations that use AI. Various laws do not directly restrict AI but may affect its development or use in South Africa. A non-exhaustive list of key examples includes:

- Protection of Personal Information Act, which extends to any automatic processing of personal data.
- Copyright Act and Patents Act, which apply to AI-generated works, one of which has been granted a patent in South Africa.
- Competition Act, which does not directly regulate the technology, but applies to digital mergers and digital platforms.
- A Draft Cyber Security Bill was published in 2024, which includes AI in the definition of a regulated information and communication technology (ICT) System and ICT Infrastructure and includes provisions which may require AI products to be certified against minimum standards.

South Africa has not yet formalised any policy documents or introduced bills to Parliament for

⁹⁸ BusinessTech (2019).

⁹⁹ Whitecase (2024).

the regulation of AI. As such, there is no single legally recognised definition of "AI" in South Africa. The Draft National AI Plan discussion document references the European Commission definition. The following developments are relevant in considering any anticipated future regulation:

- In April 2019, the President appointed members to the Presidential Commission on the Fourth Industrial Revolution (the "4IR Commission"). The task of the 4IR Commission is to identify relevant policies, strategies and action plans that will position South Africa as a competitive global player.
- In May 2019, 42 Organisation for Economic Cooperation and Development (OECD) and partner countries, including South Africa, formally adopted the first set of non-binding intergovernmental policy guidelines on artificial intelligence (OECD Council Recommendation of the Council on Artificial Intelligence OECD/LEGAL/0449 (2019)), agreeing to uphold international standards that aim to ensure AI systems are designed to be robust, safe, fair, and trustworthy.
- In November 2022, the Department of Communications and Digital Technologies launched the Artificial Intelligence Institute of South Africa and AI hubs (University of Johannesburg and Tshwane University of Technology).
- In April 2024, the Minister of the Department of Communications and Digital Technologies convened an AI Summit to share the contents of a draft National AI Plan discussion document, intended to be a pre-policy process to obtain and collate inputs to be incorporated into a draft plan.
- In August 2024, the Department of Communications and Digital Technologies (DCDT) in South Africa released its AI Policy Framework, aiming to balance AI's benefits with ethical, social, and economic considerations. Emphasising 'human-centred AI,' the Framework outlines strategic pillars, including talent development, digital infrastructure, ethical guidelines, and privacy protection. It seeks stakeholder input to refine the policy, which will guide future AI legislation.

The South African National AI Policy Framework, released by the Department of Communications and Digital Technologies (DCDT), serves as a blueprint for future regulations and an AI Act. This framework emphasises promoting AI for economic growth and social equity, while mitigating risks such as bias and privacy violations. The National AI Policy will serve as the foundation for developing AI regulations and potentially an AI Act in South Africa. Once implemented, it aims to leverage AI to drive economic transformation, foster social equity, and enhance South Africa's global competitiveness in AI innovation. The policy aligns with global AI governance standards to achieve these goals and addresses the nation's socio-economic disparities.

As people worldwide adopt AI technologies, there is a growing need for harmonised regulations and standards. A national AI policy allows South Africa to align with global AI governance standards, facilitating international collaboration and trade.

5.1.1.7 The Continental Artificial Intelligence Strategy¹⁰⁰

The Continental Artificial Intelligence Strategy adopted by the African Union (AU) in July 2024 is a landmark framework designed to guide Africa's AI development in alignment with **Agenda**

¹⁰⁰ African Union (2024).

2063 and the UN Sustainable Development Goals (SDGs).

The strategy envisions AI as a transformative force for Africa's **inclusive growth, resilience, and socio-economic development**. It aims to:

- Empower African societies through ethical and responsible AI;
- Promote African-centric innovation and cultural preservation; and
- Position Africa as a global leader in inclusive AI governance.

Strategic Objectives (by 2030)

Governance & Regulation: Establish robust AI governance frameworks aligned with African values and international standards.

- **Public Sector Integration:** Promote AI adoption in government services for efficiency and transparency.
- **Sectoral Development:** Accelerate AI use in agriculture, education, health, climate resilience, and finance.
- **Private Sector Engagement:** Support SMEs and startups in developing Africa-centric AI solutions.
- **Infrastructure & Data:** Build high-quality datasets, computing platforms, and digital infrastructure.
- **Skills and Education:** Expand AI literacy and training, especially for youth and women.

The strategy is grounded in the following ethical principles:

- **Local First:** Prioritising African challenges and solutions.
- **Human Rights & Dignity:** Upholding rights, as per the African Charter.
- **Peace & Prosperity:** Ensuring AI contributes to safe and thriving societies.
- **Inclusion & Diversity:** Empowering marginalised groups and respecting cultural diversity.
- **Transparency and Ethics:** Promoting responsible AI development and deployment.

5.1.1.8 South Africa's Alignment with the AU Continental AI Strategy

South Africa is actively engaging with the AU's AI vision, though it has not yet published a standalone national AI strategy. Instead, it is:

- **Integrating AI into broader tech ecosystems**, including blockchain and digital transformation initiatives.
- **Participating in regional AI governance efforts**, contributing to the AU's goal of harmonised AI policy across Member States.
- **Developing institutions and frameworks** to support AI innovation, such as the Centre for Artificial Intelligence Research (CAIR) and the AI Institute of South Africa (AIISA).
- **Focusing on ethical and inclusive AI**, in line with the AU's emphasis on African values, human dignity, and responsible innovation.

5.1.1.9 Microsoft Copilot

The South African Parliament is currently using Microsoft Copilot as an AI tool. Copilot is an AI assistant embedded in Microsoft 365 apps like Word, Excel, PowerPoint, Outlook, Teams, and more. It uses LLMs like GPT-4 and Microsoft Graph to understand context from your emails, documents, chats, and meetings, helping you work faster and smarter. In addition, Copilot Chat provides a conversational interface available in Teams and other apps for open-ended queries. Copilot Search is a universal search across Microsoft 365 and third-party data sources, and Semantic Indexing enhances search relevance using deep contextual understanding.

5.1.2 Ethiopia

Over the past decade, Ethiopia's use of AI has grown steadily. A leading implementer is iCog Labs Software Consultancy, a research and development firm based in Addis Ababa that collaborates with globally networked AI research groups. iCog's specialisations span machine learning-based analytics, computational linguistics, computer vision, mobile and cognitive robotics, and cognitive architectures, underpinned by a long-term vision for the widespread introduction of artificial general intelligence.

Established in 2013, iCog's early progress was enabled by a US\$50,000 capital injection and the recruitment of international expertise, including the founder and Chief Executive Officer (CEO) of SingularityNET and a chief scientist from Hanson Robotics, the Hong Kong-based company behind the interactive humanoid robot "Sophia." These partnerships supported milestones, including contributing to more than half of Sophia's software development and launching Solve IT, a flagship nationwide competition that runs for several months annually and teaches youth coding, entrepreneurship, and hardware skills, while challenging them to develop technology solutions to everyday community challenges. Additional actors include EthioCloud, which converts Amharic paper documents into editable text and provides Amharic text-to-speech and translation tools, and Ethio Robo Robotics, which promotes early adoption of AI by offering robotics training for children, in partnership with US-based VEX Robotics.

Despite this momentum, local investors have shown limited enthusiasm for AI, tending to favour asset-based investments over innovation. According to GSMA (2025), Ethiopia's AI development is anchored in government leadership and guided by the 10 Year Development Plan (2021–2030), which rests on ten strategic pillars: quality economic growth and shared prosperity; economic productivity and competitiveness; technological capability and the digital economy; sustainable development financing; private sector led growth; a resilient green economy; institutional transformation; gender and social inclusion; access to justice and an effective civil service; and regional peace building and economic integration.¹⁰¹ To operationalise the plan, government has launched initiatives that target priority sectors for AI led innovation for example, investing €87 million in the Ethio ICT Village as a centre of excellence for scientific and technological research, directing 70% of university enrolments toward science, technology, engineering and mathematics (STEM) fields, and fostering collaboration between dedicated universities and the AI and Robotics Centre of Excellence

¹⁰¹ GSMA (2025).

to bridge theory and practice.¹⁰² The government envisions Ethiopia becoming an “African Beacon of Prosperity” by 2030, sustaining an average growth rate of 10.2% over the plan period.

These efforts are reinforced by the Digital Ethiopia 2025 Strategy, which guides an inclusive digital transformation focused on building a digital economy to drive job creation, foreign-exchange earnings, and equitable growth across sectors. To support implementation, the government has partnered with the Tony Blair Institute for Global Change and the AI for Good Foundation. It has aligned its programmes with the African Union’s Digital Strategy for Africa (2020–2030) and the AU Continental Strategy on Artificial Intelligence, adopted in July 2024 in support of Agenda 2063.

Nonetheless, limited access to finance constrains the private sector’s capacity to develop AI products and services. Of 562 small AI businesses identified, five hundred and sixteen (516) have secured some funding, but it remains sparse and inconsistent, with investments ranging from US\$0.24 million to US\$42 million. Weak investment conditions contribute to high borrowing costs, a risk-averse entrepreneurial culture, and overreliance on government and international funding. This funding gap also affects academic and research institutions, curtailing their ability to generate research and cultivate the expertise needed to sustain AI innovation.

Data availability presents another barrier: datasets are limited, fragmented, and poorly curated, with ministries maintaining separate silos and lacking systematic cross-sector sharing.¹⁰³ Even a China-supported satellite programme initially intended for agricultural data has been redirected toward mapping the Renaissance Dam. As Azaroual (2025) notes, Africa’s AI adoption is hampered by inadequate network access and slow growth in infrastructure and mobile connectivity, leaving many without internet access; in some states, broadband costs can reach 44% of gross domestic product (GDP).¹⁰⁴ Even so, there is clear potential to establish robust, high-quality data-collection frameworks and to build the infrastructure pathways required to support Ethiopia’s 10-year plan.

Ethiopia’s computing capacity remains nascent and dependent on public–private investment. Government established the Ethiopian Artificial Intelligence Institute (EAI) in 2020 to serve agencies and financial institutions; Safaricom Ethiopia commissioned multiple Tier III data centre facilities in 2021, with plans for Tier IV as demand grows; and new entrants such as Red Fox and Wingu.Africa and Raxio Ethiopia are active across finance, media, and telecommunications. Still, the ecosystem is primarily focused on colocation rather than high-performance computing (HPC) required for advanced AI workloads.

5.1.2.1 Implications for the Ethiopian Parliament

Although AI technologies generally contribute to socio-economic development, they also have the potential to negatively impact various aspects of people’s social, economic, cultural, and political rights. For instance, it is widely accepted that the proliferation of AI technologies will lead to unprecedented job losses and, therefore, increasing levels of unemployment. This is

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Azaroual (2024)

outlined in the World Bank Development Bank Report, which estimates that two-thirds of all jobs are susceptible to automation and that 85% of employment in Ethiopia is at risk of being lost to automation and advanced technologies.¹⁰⁵ This is corroborated by the 2023 study by the OECD. The study revealed that 27% of jobs are in occupations at high risk of automation. Additionally, the study concludes that up to a quarter of current human jobs could be automated by AI, resulting in the loss of 300 million jobs in the United States and Europe.¹⁰⁶

As such, the Ethiopian Parliament needs to develop a legal framework to mitigate job losses and the re-skilling of workers whose skills will be rendered redundant by new technologies. In addition, the scale of job losses will lead to inequality and poverty. This will compromise the country's vision of achieving lower-middle-income economy status by 2025.

Moreover, the introduction of AI in Ethiopia poses a threat to the protection of personal information, exacerbated by inadequate legal, regulatory, and policy frameworks, given the large volumes of personal data collected by government entities. The following examples illustrate circumstances under which citizens' personal data is collected and stored by the Ethiopian Government agencies and private companies. First, the Proclamation on the Registration of Vital Events and National Identity Cards allows for the collection of personal information and its transfer to various institutions. Additionally, Ethio Telecom requires customers to provide personal details, such as name, surname, home address, identity number, photograph, and signature, to register their mobile Subscriber Identity Module (SIM) cards. Lastly, it is concerning that government agencies are allowed to use surveillance technologies to gather citizens' data without regulatory and legal frameworks. More importantly, AI has negatively impacted freedom of expression. Social media platforms like X, WhatsApp and Facebook are used to spread fake news that promotes prejudices and leads to ethnic tensions.¹⁰⁷ The response of Parliament has been a proposal to pass a new legislation on hate speech. The Ethiopian Parliament needs to develop a legislative framework and policy guidelines that would ensure the safety of its citizens. Such legislation must be mindful of AI's ability to manipulate content.

5.1.3 Kenya

Kenya is one of the African countries that have developed and are currently implementing a national AI Strategy. Its strategy was adopted in March 2025 and runs through 2030.¹⁰⁸ The Strategy envisions the country as Africa's leading AI hub for model innovation, driving sustainable development, economic growth, and social inclusion, while positioning itself as an AI research and application leader on the continent.¹⁰⁹ It also recognises the transformative potential of AI; hence, it commits to safeguarding national interests by embedding robust data sovereignty, a cybersecurity framework, and ethical oversight in AI deployment.¹¹⁰

True to the role of the legislature, the Kenyan Parliament has not only processed the Kenya Robotics and AI Society Bill, 2023, but also implored government to make AI inclusive, especially for the underserved communities, to unleash the undiscovered potential. The

¹⁰⁵ Global Information Society Watch (2019).

¹⁰⁶ Azaroual (2024).

¹⁰⁷ Ibid.

¹⁰⁸ Onyango (2024).

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

legislature has also encouraged the public to embrace AI across key sectors, including agriculture, security, healthcare, education, and public service delivery, to ensure that Kenya becomes a model of AI capability on the African continent.¹¹¹ When enacted, the Bill will establish the Kenya Robotics and AI Society and set out its functions and powers. It will also promote the responsible and ethical development and application of robotics and AI technologies within the Republic of Kenya, including internet coverage.

Reporting: In 2024, Parliament announced its intention to introduce AI technology to compile Hansard and ensure its timely circulation and storage. It was at the Annual Conference of the Hansard Association of Kenya (HAK) for parliamentary officials and 47 country assembly officials, where the integration and usefulness of AI were underscored and welcomed for various parliamentary business, including the capture of parliamentary sittings.¹¹²

- Available data does not fully show the extent to which the Parliament of Kenya uses AI for its core operations, such as research analysis, consideration of volumes on public submission on Bills, as well as the status of social media and integration of multimedia content in the parliamentary work. Another silent component relates to Parliament's oversight function, where AI is used to compare overt and opaque public expenditure.
- Fusion of innovative modern-day technologies such as X, Thread, Instagram, Facebook, and TikTok is not referenced anywhere for optimising the work of the Parliament of Kenya. Given that Africa (including Kenya) has a young population, it is essential for Parliaments to continuously onboard young people into their operations to ensure relevance to the population, service to the nation, representativeness of all constituencies, and alignment with the country's aspirations.

On risks, MPs have raised concerns about the potential harm of AI in terms of privacy breaches, AI-powered fake technology algorithms, algorithmic discrimination, autonomous weapons, job displacement and economic inequality, social manipulation and misinformation, financial market manipulation, and privacy invasion. Despite the processing of the earlier-referenced Bill, some MPs have called on the Ministry of Information, Communication and the Digital Economy to lead the development of a legal framework and ethical guidelines for responsible AI use in Kenya.¹¹³ Critical to the implementation of the AI strategy is the infrastructural aspect, which is not explained, including its capacity and human resources. Also not mentioned is the extent to which core subjects like robotics and technology are offered in basic education.

5.1.4 Angola

Angola is actively embracing AI as a catalyst for digital transformation and economic diversification. With a young and growing population, the country is leveraging AI to address systemic challenges in governance, education, healthcare, agriculture, and climate resilience. This aligns with broader continental efforts to harness AI for inclusive development.

¹¹¹ Onyango (2024).

¹¹² Ntaba (2024).

¹¹³ Beigon (2025).

Strategic Vision and Policy Framework

Angola's digital transformation is guided by initiatives such as the Angola Digital Acceleration Project, part of the Inclusive Digitalisation in Eastern and Southern Africa (IDEA) programme. This project, supported by the World Bank, aims to expand broadband access, promote digital inclusion, and stimulate private sector investment in digital services.¹¹⁴

At the continental level, Angola is a signatory to the African Union's Continental Artificial Intelligence Strategy, which promotes ethical, inclusive, and Africa-centred AI development.¹¹⁵

Sectoral Applications of AI¹¹⁶

- Healthcare: AI is being explored for diagnostics, telemedicine, and health data management to improve service delivery in underserved regions.
- Agriculture: AI-driven satellite and IoT technologies are used for crop monitoring, pest control, and climate adaptation, especially in drought-prone southern Angola.
- Education: AI tools are being introduced to enhance digital learning and bridge educational gaps, particularly in rural areas.
- Urban Planning & Climate Resilience: AI supports urban development and environmental monitoring, helping policymakers respond to rapid urbanisation and climate-related risks.

5.1.4.1 Innovation Ecosystem and Capacity Building

The Science, Technology and Innovation Policy Review by the United Nations Conference on Trade and Development (UNCTAD) highlights Angola's efforts to foster entrepreneurship and innovation through policy reform and institutional strengthening. The review emphasises the importance of digital technologies, including AI, in supporting economic diversification and job creation.¹¹⁷ Despite being in the nascent stage of digital maturity, Angola has made progress in digital infrastructure, governance, and digital finance, according to the Digital Economy Navigator.¹¹⁸

¹¹⁴ World Bank Group (2024).

¹¹⁵ African Union (2024).

¹¹⁶ United Nations Development Programme (2019).

¹¹⁷ United Nations Trade and Development (n.d.).

¹¹⁸ Digital Economy Navigator (2025).

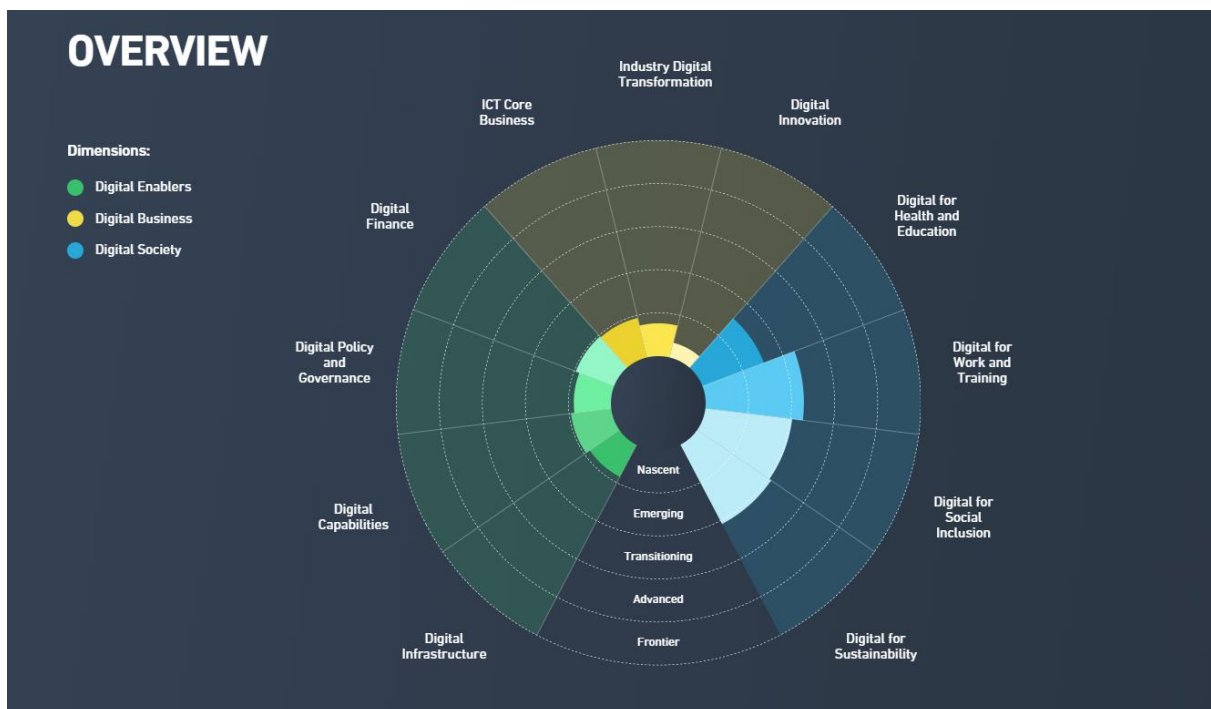


Figure 2: The Digital Economy Navigator results for 2025 - Angola

5.1.4.2 Challenges¹¹⁹

- **Infrastructure Gaps:** Limited broadband coverage and high data costs hinder widespread AI adoption.
- **Skills Shortage:** There is a need for more trained professionals in AI, data science, and digital governance.
- **Regulatory Readiness:** Angola, like many African nations, is still developing frameworks for the responsible use of AI.

5.1.4.3 Opportunities

- **Youth Demographics:** With a median age under 20, Angola has a large, tech-savvy population that can drive AI innovation.
- **International Partnerships:** Collaborations with the UN, World Bank, and regional bodies are helping Angola build capacity and access funding for AI initiatives.
- **Economic Diversification:** AI is seen as a tool to reduce reliance on oil by boosting sectors like fintech, agriculture, and public services.

Angola's AI journey is still unfolding, but the foundations are being laid for a more inclusive, innovative, and digitally empowered society. Continued investment in infrastructure, education, and ethical governance will be key to unlocking AI's full potential in the country.

5.1.5 Uganda

Addressing a symposium on data analytics held in November 2024, the Deputy Speaker of

¹¹⁹ Plantinga (2024).

the Parliament of Uganda, Thomas Tayebwa, made a clarion call for urgent AI regulation in his country, citing potential threats to society.¹²⁰ Tayebwa cautioned that neglecting ethics could widen the gap between the poor and the rich and compromise society. Consequently, Uganda has reportedly begun drafting its first national AI policy, aiming to regulate the fast-evolving technology, while harnessing its potential for innovation, national development, and digital transformation.¹²¹ Spearheaded by the Ministry of ICT, the policy will create a regulatory framework for responsible AI use, prioritise data privacy, and ensure the country is equipped to benefit from global AI advancements.¹²² The AI policy is part of a broader digital transformation strategy, as Uganda looks to position itself as a regional leader in ethical and secure technology adoption.

It is reported that Uganda is developing robust AI regulation frameworks that balance innovation with ethical deployment. The country's strategic approach emphasises human rights protection, economic growth, and SDGs through responsible AI adoption.¹²³ Uganda's embrace of AI represents a pivotal shift in the country's development strategy. The Uganda AI regulation framework recognises AI's transformative potential across multiple sectors, positioning digital technologies as catalysts for achieving the SDGs within the Ugandan context.¹²⁴

The Ugandan Government has implemented several AI-powered national security initiatives, most notably through strategic partnerships that enhance public safety capabilities. The collaboration with technology providers has introduced facial recognition systems and surveillance technologies that require careful regulatory oversight to balance security benefits with privacy rights. These security applications demonstrate the urgent need for a comprehensive Uganda AI Regulation that addresses both technological capabilities and citizens' protection.

The healthcare sector represents a critical focus area for AI and data governance in Uganda. The country's pursuit of Universal Health Coverage (UHC) aligns closely with AI integration strategies that can:¹²⁵

- Expand diagnostic capabilities in underserved rural areas;
- Optimise resource allocation across healthcare facilities;
- Improve patient outcomes through predictive analytics; and
- Reduce healthcare costs while maintaining quality standards.

5.1.6 Botswana

According to the website of the Parliament of Botswana, the institution has two main departments: namely, the National Assembly and *Ntlo Ya Dikgosi*.¹²⁶ *Ntlo Ya Dikgosi* is an advisory body to the National Assembly on issues of national interest. This department has three units responsible for administrative issues. The units are as follows: Human Resources,

¹²⁰ Maloba (2024).

¹²¹ Whitehead (2025).

¹²² Ibid.

¹²³ Nemko Digital (n.d.).

¹²⁴ Ibid.

¹²⁵ Ibid.

¹²⁶ Parliament of Botswana [online].

Admin/Accounts, and Report Production. The National Assembly is identified as facilitating the smooth running of the Parliament's business. It achieves this by providing procedural and administrative support to MPs, stakeholders, the public, and staff in general by means of two divisions, namely:

- Parliamentary Services (Committees; Tables and Journals; Recording and Reporting; Editing and Graphic Design; Research; Translation; Library and Information Services), and
- Corporate Services (Reforms; Human Resources; Admin/Accounts; Accounting; Transport; Hospitality; Secretarial; Records Management; Information Technology; Public Relations; Supplies; Procurement; Operations).

To access the Strategic Plan of the Parliament of Botswana, the following is displayed on the official website:



Figure 3: Access to the Strategic Plan of the Parliament of Botswana

The organisational structure of the Parliament of Botswana is as follows:

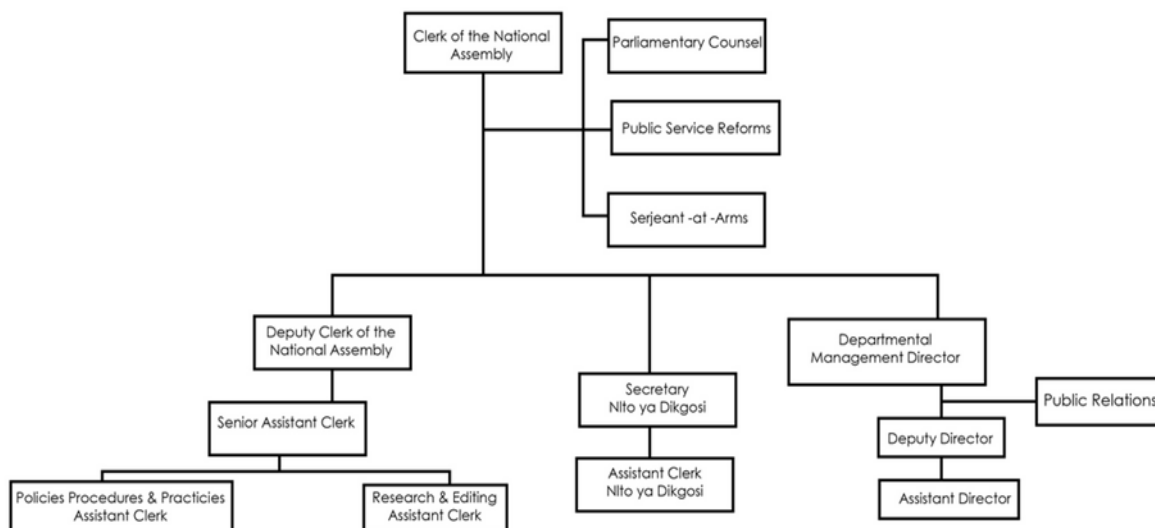


Figure 4: Organisational structure of the Parliament of Botswana

Exploring the official website of the Parliament of Botswana further, the following was identified:

It is claimed that 'Botswana Speaks' is a parliamentary initiative aimed at enhancing democracy through public participation and policy dialogue, and claims to:¹²⁷

- Enhance the representative role of the MP.
- Building a responsive Parliament and Government for improved service delivery.
- Bringing all constituents onboard to enhance Botswana's traditional consultation systems (Kgotla meetings), while leveraging new technologies.
- Accessible as a web-based platform and a mobile application.
- Allows citizens to send messages directly via an online system using computers, laptops, tablets and smartphones.
- Citizens' messages are uploaded automatically into a tracker and viewed regularly by the MPs for a response.
- Increase citizens' participation in the democratic process.
- Improve communication between MPs and constituents.
- Harness opportunities presented by the more than 100% mobile penetration in Botswana.
- Increase uptake and use of ICTs in Botswana.

In exploring the Parliament of Botswana's online footprint, the focus is on its Wikipedia page. The Parliament of Botswana is presented on Wikipedia in close to one page, so one does not have to scroll to read all the information. In short, it involves less information than the Parliament of Canada's Wikipedia page, which is explored in a section to come. To highlight the information available on Wikipedia concerning the Parliament of Botswana, the following direct quote is presented:¹²⁸

The Parliament of Botswana consists of the President and the National Assembly. In contrast to other parliamentary systems, the Parliament elects the President directly (rather than having both a ceremonial President and a Prime Minister with absolute authority as head of government) for a fixed five-year term of office. A president can only serve 2 full terms. The President is both Head of State and Head of Government in Botswana's parliamentary republic. The Parliament of Botswana is the supreme legislative authority. There also exists a body known as Ntlo ya Dikgosi (The House of Chiefs), an advisory body that does not form part of Parliament. Botswana is one of only two African nations (together with Mauritius) to have achieved a clean record of free and fair elections since independence, having held 11 elections since 1966 without any serious incidents of corruption (Wikipedia).

Plantinga, Shilongo, Mudongo, Umubyeyi, Gastrow, and Razzano (2024) found that several African countries are developing AI strategies and ethics frameworks to accelerate responsible AI development and adoption.

¹²⁷ Botswana Speaks <https://www.botswanaspeaks.gov.bw/about>

¹²⁸ Parliament of Botswana. https://en.wikipedia.org/wiki/Parliament_of_Botswana

Shilongo, Gaffley, Plantinga, Adams, and Olorunju (2024) offer the following overview concerning the existing legal framework linked to AI in Botswana: ¹²⁹

Botswana Regulatory and Policy Overview		
	Drafted	To Be Drafted
Key Policy Areas for AI ¹⁴	<ul style="list-style-type: none"> • Digital, ICT or 4IR Strategy • E-Learning • E-Government • Science, Technology and Innovation 	<ul style="list-style-type: none"> • National AI Strategy • E-Health
Foundational Laws For Responsible AI	<ul style="list-style-type: none"> • Intellectual Property • Electronic Communications and Transactions • Cybersecurity and Cybercrime • Consumer Protection • Competition • Data Protection / Protection of Personal Information. 	<ul style="list-style-type: none"> • Freedom of Information
Key Legislation Noted	<ul style="list-style-type: none"> • Competition Act No. 17 of 2018 • Copyright and Neighbouring Rights Act No. 8 of 2000 • Cybercrime and Computer Related Crimes Act No. 18 of 2018 • Data Protection Act No. 32 of 2018 • Electronic Communications and Transactions Act No. 14 of 2014 • Electronic Records (Evidence) Act No. 13 of 2014 • Public Procurement and Asset Disposal Act No. 12 of 2008 	

Figure 5: Botswana Regulatory and Policy Overview

Concerning a variety of existing capabilities that could be relevant to responsible AI, and which point to the benefit of broader engagement on how existing governance mechanisms are working, and on where AI-specific adjustments or new instruments may be needed, Plantinga et al. noted the following as relevant:¹³⁰

- Existing model management procedures used in banking and air quality assessment;
- Efforts aimed at enhancing public sector skills and transparency around public–private partnerships, and
- The way in which existing electronic transactions legislation addresses accountability and human oversight.

Plantinga et al. argue that perhaps “the most mature area of policy or legislation concerning human–technology interaction in African countries is around electronic transactions and evidence”. They found that this was driven by the relatively mundane need to ensure that email, digital documents, and electronic signatures are legally recognised. For example, Botswana’s 2014 Electronic Communications and Transactions Act (ECTA) determines that a contract is formed “by the interaction of an automated message system and a person, or by the interaction of automated message systems”. It recognises the admissibility of electronic records as evidence in legal proceedings, subject to the Electronic Records (Evidence) Act.¹³¹

¹³⁰ Plantinga et al. (2024).

¹³¹ Ibid.

Tembine, Tapo, Danioko and Traoré (2024) found that, in an African context, each country is pursuing its own Machine Intelligence (MI) path at the research level, targeting concrete solutions to local problems.¹³² They found that in Southern Africa, MI activities are diverse and that Botswana explores:

- Water billing;
- Diabetic retinopathy screening;
- Solar radiation prediction;
- Gravel loss condition prediction;
- HIV/AIDS treatment;
- Data mining;
- ART programme success; and
- Clinical decision support.¹³³

The discussion above highlighted that AI is being implemented and governed in Botswana. The sections that follow explore examples of AI use in Botswana.

5.1.6.1 Tax non-compliance

The findings of a qualitative study revealed that in “Botswana, there is no existing innovative and comprehensive framework to combat tax non-compliance” and recommend an AI framework to combat tax non-compliance. To implement such a framework, the following needs were identified:¹³⁴

- The AI framework should be tested by tax gurus, AI experts and academics with the aim of refining or revising the recommended construct.
- Botswana can use AI tools based on the available data and draw some lessons (benchmarking) from countries (for example, Brazil, France and Indonesia) that have used AI frameworks in their tax administration.
- To fully deploy the proposed AI framework, it is imperative to phase out cash or promote e-payment systems in Botswana.
- The operationalisation of the proposed framework is feasible in a paperless or cashless economy where there is limited use of cash.

5.1.6.2 AI Readiness in Botswana

Shonhe and Kolobe explored insights into Botswana’s AI readiness landscape and identified the following major drawbacks to successful AI adoption:¹³⁵

- A lack of AI strategy;
- Limited capacity to support change;
- An immature technology sector incapable of supporting innovation;

¹³² Tembine et al. (2024).

¹³³ Ibid.

¹³⁴ Unknown (n.d.).

¹³⁵ Shonhe and Kolobe (2023).

- Inadequate skills to support AI development;
- Insufficient technological infrastructure to support AI;
- Insufficient data to train AI models; and
- There are a few use cases identified in the public sector.

Although Shonhe and Kolobe note that an attempt to establish a national AI strategy in Botswana did not yield results, they argue that having a national AI-specific strategy demonstrates government's dedication to making AI a cornerstone of its next development model. This is achieved when the AI strategy:¹³⁶

- Provides a roadmap for AI implementation at all levels;
- Enables AI applications to increase access to goods and services, close gaps, and support SDGs; and
- Mitigates risks.

Therefore, according to Shonhe and Kolobe, a country attempting to implement AI without a strategy is bound to face challenges in its digital transformation journey. Noting an absence of AI-specific regulation, it was found that Botswana has accelerated the adoption of digitalisation and e-commerce-related rules, such as:¹³⁷

- The Electronic Communications and Transactions Act (2014);
- The Electronic Records Act (2014);
- Customs Act (2018);
- The Consumer Protection Act (2018);
- The Cybercrime and Computer Related Crimes Act (2018);
- Industrial Property Act (2010);
- The Data Protection Act (2018);
- The Competition Act (2018);
- The Civil Aviation Authority of Botswana (CAAB) has implemented regulatory laws for flying drones in the country;
- The Republic of Botswana recently signed a Memorandum of Agreement with E-Space. E-Space is a global space company focused on bridging Earth and space with the most sustainable low Earth orbit (LEO) network; and
- To boost the telecommunication infrastructure, the government implemented a National Broadband Strategy to address these constraints. It established Botswana Fibre Networks (BoFiNet), which maintains a national backbone network connecting cities, major towns, and villages.

Shonhe and Kolobe state that it is praiseworthy that Botswana has put in place foundational laws for the use of technology and, consequently, for responsible AI.¹³⁸ However, they argue that Botswana faces implementation challenges, as do other countries in the region. They note that despite Botswana being among the 193 Member States that adopted the recommendation on the ethics of AI at the United Nations Educational, Scientific and Cultural Organisation's (UNESCO) general conference in November 2021, Botswana still has not yet assimilated these recommendations and developed AI ethics for the economy's digital transformation

¹³⁶ Shonhe and Kolobe (2023).

¹³⁷ Ibid.

¹³⁸ Ibid.

strategy.

Shonhe and Kolobe further argue that there is a limited regulatory framework to guide safe AI development in Botswana, including the implementation and use of AI technology specifically within the context of protecting human rights.¹³⁹ They specifically refer to how facial recognition technology is being deployed without guidelines that reconcile the imperatives of public safety and protection with the fundamental right to personal privacy, to substantiate this finding.

Shonhe and Kolobe (2023) also note that the Botswana government lacks the necessary conditions to support AI innovation. This argument is based on their findings that government website has not published progress reports on digital transformation initiatives and policies. They also found that in Botswana, AI algorithms are being utilised more in research, but fewer products are being implemented.

Shonhe and Kolobe) emphasise that Botswana's population of approximately 2.5 million people poses specific challenges and constraints on the country's capacity to deploy AI technology.¹⁴⁰ With a relatively smaller population size compared to some other African countries, the resources available for AI development and implementation are limited. Focusing on another research study, the following insights are presented.

Shilongo, Gaffley, Plantinga, Adams, and Olorunju identified the following underlying challenges that need to be addressed before the full potential of local innovation and social impact from emerging technologies, such as AI, can be realised in Botswana:¹⁴¹

- Expanding access to and increasing the adoption of basic broadband services;
- The need for upgrades to and utilisation of ICT and data management systems to improve management decision-making; and
- The low number of graduates in ICT from tertiary institutions.

Shilongo et al. concluded that AI technology can positively support inclusive African economies and ecosystems.¹⁴² Yet, the nature of the technology and its proliferation pose potential risks and challenges that may exacerbate existing social and economic inequalities, and infringe on human freedoms, autonomy and dignity.

Recommendations and Opportunities linked to Botswana and AI readiness include:¹⁴³

¹³⁹ Ibid.

¹⁴⁰ Ibid.

¹⁴¹ Shilongo, Gaffley, Plantinga, Adams, & Olorunju (2024).

¹⁴²

¹⁴³ Ibid.

Legislation	<ul style="list-style-type: none"> • Prioritise enactment of rights-based data protection legislation in all jurisdictions. • Establish legislative cybersecurity standards to strengthen AI security in all jurisdictions. • Consider legislative tools to safeguard use of high-risk AI, including facial recognition technologies. • Develop e-waste policies or upgrade environmental protection legislation to consider the impacts of AI systems and other data technologies. • Develop legislation which promotes expanded public participation in the development and design, as well as the evaluation of value and impact of AI systems.
Regulatory Mechanisms and Oversight	<ul style="list-style-type: none"> • Ensure groups/communities or individuals harmed by the use of AI technologies are able to pursue legal action or have access to a fair trial if wronged through an AI system. • Create guidelines for groups/communities to seek redress against harms caused by AI systems.
Partnership Frameworks	<ul style="list-style-type: none"> • Advance data sharing agreements to support local AI innovation. • Forge partnerships between social scientists or activists, environmental scientists and the technical developers of AI systems.
Capacity Building	<ul style="list-style-type: none"> • Expand gender-sensitive information/data collection for the broader ICT sector to inform policies that can advance and ensure the active leadership and involvement of women in digital and AI services. • Empower policymakers to understand and make considerations for various ethical risks.
Consultation	<ul style="list-style-type: none"> • Adopt a multi-disciplinary and multi-stakeholder approach to the development of national digital, 4IR and AI policy initiatives, including public consultation and feedback.
Education	<ul style="list-style-type: none"> • Develop programmes to promote public awareness and literacy on AI-related issues, including strengthening the capacity of civil society organisations. • Develop programmes to advance skills for the digital age for all levels.
Research	<ul style="list-style-type: none"> • Governments should increase investment in AI-related R&D, including to advance national AI ethics competencies.
Policy	<ul style="list-style-type: none"> • Address ethical and responsible data and AI use in revisions of sector strategies for e-health, e-governance, e-finance/FinTech and e-learning/ education in particular.
Regulatory Mechanisms and Oversight	<ul style="list-style-type: none"> • Establish and enhance capacity of policy, regulatory and enforcement entities to respond to policy and legislative recommendations herein, and support implementation of the UNESCO Recommendations, through targeted skills development of government officials and external stakeholders, in-sourcing of critical skills at key authorities and agencies, and development of guidelines for design, acquisition and operation of digital infrastructure and services.
Partnership Frameworks	<ul style="list-style-type: none"> • Consider partnership opportunities between local, regional and international universities as well as public-private institutions for attracting and retaining AI-skills in the region. • Strengthen partnerships with the private sector for responsible and accountable AI use and development, and increase economic welfare gains from expansion of big tech by ensuring they are fairly distributed through employment and new business opportunities.
Research and Development	<ul style="list-style-type: none"> • Revisit STI policy in relation to AI both in how inter-, multi- and trans-disciplinary research can inform responsible AI policy approaches, and in how technology and data-intensive research can adopt responsible AI practices (including equipping research ethics committees on AI ethics and review).
Infrastructure	<ul style="list-style-type: none"> • Continue and deepen progress on core digital policy initiatives to support inclusive and trustworthy access to and use of digital technologies and services, including broadband connectivity.
Benchmarking	<ul style="list-style-type: none"> • Support national and regional alignment on key policy areas including the AUC Data Policy Framework and the UNESCO Recommendation on Ethics in AI.

Figure 6: Recommendations and Opportunities linked to Botswana and AI readiness

5.1.6.3 Intelligence and Data Privacy

How does Botswana use intelligence, and does such predict how authorities in Botswana might use AI? This is the question which emerged after reading the article cited below. Specifically, Lotshwao argues “that the Directorate of Intelligence and Security (DIS) in Botswana was conceived as an instrument of coercion towards the ascendance of Ian Khama to the country’s presidency”.¹⁴⁴

*The DIS was granted broad powers and allowed to operate with little accountability, virtually answering only to the president. Accordingly, during Khama’s ten-year rule (2008–2018), Botswana was gripped by fear, with allegations of extrajudicial killings commonplace. To ensure that no president similarly misuses the DIS, the article proposes reforms that include narrowing the institution’s mandate, transparency in the appointment of the Director General, and strengthening oversight mechanisms such as the DIS Tribunal and the Intelligence and Security Parliamentary Committee.*¹⁴⁵

Furthermore, Lotshwao identified that the Intelligence and Security Parliamentary Committee that the DIS Act provides for is pro-executive, as unlike other parliamentary committees, it is appointed by the president, but in consultation with the Leader of Opposition in the National Assembly and the Speaker of the National Assembly.¹⁴⁶

Lotshwao claims that the following reforms are necessary to transform the DIS from a coercive institution that primarily serves the interests of a sitting president to a proper national intelligence institution:¹⁴⁷

- Firstly, to reform the DIS, the organisation’s mandate should be narrowed to the provision of intelligence services. The broad mandate has allowed the DIS not only to encroach on the mandates of other state institutions, such as the police and oversight agencies, but also to function as a supervisory institution over them.
- Secondly, the process of appointing the Director-General (DG) should be more transparent. As previously stated, the DG is currently appointed by the President. Since the process is not transparent, the integrity of the DG rests solely on the president’s goodwill.

Lotshwao (concludes that without reforms, the DIS will remain an instrument of coercion, susceptible to misuse by any sitting president.¹⁴⁸ Coming back to the question asked: How does Botswana use intelligence and does such predict how authorities in Botswana might use AI? The article does not provide an answer. But instead, it highlights that, in addition to, or as part of, or preceding, focusing on how a Parliament uses AI, attention should be placed on how a Parliament has used (or used) intelligence in the past. This could highlight existing gaps in a country’s intelligence governance, and potentially, such governance frameworks could serve as a basis for those focused on AI. Noting the use of intelligence, the focus is now

¹⁴⁴ Lotshwao (2025).

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

directed towards data privacy.

Abdulrauf and Dube note that Africa is now witnessing an era of the proliferation of ubiquitous (data) privacy intrusive technologies, such as artificial intelligence, advanced surveillance technologies, the internet of things, big data analytics, cloud computing technologies, and the internet itself.¹⁴⁹ They argue that, unfortunately, the challenges posed by these new technologies to human rights and fundamental freedoms are somewhat underestimated on the continent and have received minimal academic scrutiny. They urge that Africa must take the right to data privacy very seriously and that it is not enough to merely have a normative framework (or data privacy laws) in place. They emphasise the need for the faithful enforcement and implementation of the normative framework, and demand that data protection authorities (DPAs) be independent.¹⁵⁰

Makulilo found that, aligned with African governments' tendency to create large data banks for various purposes, such as the mandatory registration of SIM cards.¹⁵¹ This is because all service providers are required, under licensing conditions, to register all subscribers on their networks. According to Makulilo, the development of SIM card data banks has sparked public debate over privacy concerns. Part of the reason is that, in many countries, such as Botswana, the mandatory registration of SIM cards proceeded, at least initially, under administrative directives from the national communication authorities. Makulilo argues that there was no legislation or regulation in place to protect individuals' personal data. In addition, Makulilo et al. (found that Botswana was an example of a country that used the COVID-19 tracking application without having a data protection regulation in force.¹⁵²

Makulilo emphasised that Botswana is part of a subregional grouping of 15 countries in the Southern African Development Community (SADC). Of relevance, according to Makulilo, is that the SADC adopted a model law on data protection in the sub-region, namely, the SADC Model Law on Data Protection 2012 (Model Law). Makulilo argues that it is essential to note that the Model Law is not a binding instrument and, as such, it has little influence on law reforms in the sub-region.¹⁵³

According to Salami, in the context of AI, African countries, such as Botswana, need to invest in educating Africans about the legal (including data protection law) consequences of AI systems.¹⁵⁴ According to Salami, this will serve the dual function of educating data controllers on measures to comply with relevant laws. At the same time, data subjects will be better educated about their rights and will pursue their enforcement. Salami also found that the lack of adequate data protection laws in African countries, including where existing laws are poorly enforced, will make the continent a testing ground for data processing activities that would otherwise be unlawful in the home countries of multinational data controllers, which means residents of the African continent potentially being the guinea pigs for such unlawful processing activities.¹⁵⁵

¹⁴⁹ Abdulrauf and Dube (2024).

¹⁵⁰ Ibid.

¹⁵¹ Makulilo (2024).

¹⁵² Makulilo, Ezekiel Mwamlangala and Msumi (2024).

¹⁵³ Makulilo (2024).

¹⁵⁴ Salami (2024).

¹⁵⁵ Ibid.

AI in Botswana was explored above, and the following key insights were gained:

- AI governance in Botswana and in an African context seems to be directed towards legislation and policies focusing on data privacy and infrastructure linked to internet and cellular-based service providers' licensing.
- Education focusing on data privacy for ordinary citizens is identified as essential to regulate the implementation of data privacy regulations by service providers.
- The absence of AI governance and/or the absence of adequate implementation of existing AI governance initiatives opens African countries, such as Botswana, up towards a risk of becoming 'guinea pigs' for unlawful data processing practices by multinational data controllers.

5.1.7 Morocco

Morocco is progressing towards developing a national AI legal framework that aligns with the guidelines of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the United Nations (UN). Still, it faces challenges in both legislation and enforcement.¹⁵⁶ The Economic, Social and Environmental Council (CESE) recommends updating the Moroccan Personal Data Protection Act to establish a data governance framework compatible with AI. Legislative efforts are concentrating on formalising AI capabilities and integrating AI into governance and public services.

Furthering these initiatives, the Moroccan Government unveiled Digital Morocco 2030 in September 2024, which emphasises AI as a crucial driver of development. Current assessments indicate a mid-tier global readiness, ranking around 101st in 2024, while positioning Morocco among the top countries in Africa, often cited as around 6th place.¹⁵⁷ Reports from 2025 have proposed establishing a National Agency for AI Governance.¹⁵⁸ This strategy aims to address issues related to data governance, record digitisation, and transcription and search standards; it also aims to trial assistive chat technologies for public interaction and committee briefings, ensuring strong privacy safeguards.

5.1.8 Namibia

Namibia has recently taken significant steps to integrate artificial intelligence and digital tools into governance. Their National AI Strategy was launched in 2025 to harness AI to address local challenges and drive sustainable growth. This strategy positions Namibia as an emerging leader in AI among developing nations, emphasising sectoral transformation (in health, education, agriculture, and mining) and building infrastructure and skills for an enabling ecosystem.¹⁵⁹ These efforts build on earlier groundwork: A 2022 Fourth Industrial Revolution Task Force report assessed Namibia's tech readiness, highlighting gaps like limited digital infrastructure, scarce skilled workers, and unclear policies, alongside opportunities such as a stable political environment, a growing ICT sector, and an innovation-focused Vision 2030.¹⁶⁰

Regionally, Namibia endorsed the Windhoek Statement on Artificial Intelligence in Southern

¹⁵⁶ Jaldi (2023).

¹⁵⁷ Jaldi (2023).

¹⁵⁸ Jaldi (2023).

¹⁵⁹ Kaaniru, 2025

¹⁶⁰ UNESCO Office in Windhoek and Government of Namibia (2022)

Africa (2023), which calls for ethical, inclusive AI and local data governance frameworks.¹⁶¹ In parallel, the Namibian Parliament has pursued digital transformation through a multi-year e-Parliament Strategy (2022–2027) aimed at modernising legislative operations and improving transparency and citizen engagement.¹⁶² Under this strategy, Parliament revamped its website in 2022, adding features such as live-streaming of sessions on social media, and is developing an online bill-tracking system to involve the public in the legislative process.¹⁶³ The new rules allow virtual and hybrid sittings to ensure parliamentary work continues smoothly in the digital age. These initiatives underscore Namibia’s commitment to a more open, efficient legislature, even as it works toward a ‘paperless’ Parliament in the coming years.¹⁶⁴

5.1.8.1 Use of AI in the Parliamentary Context

While AI use in Namibia’s Parliament is still in its budding stages, there have been exploratory projects and a clear intent to leverage AI for legislative support. Speaker Saara Kuugongelwa-Amadhila noted in 2025 that the National Assembly is “*gradually embracing digital transformation*” and “*exploring AI tools*” to support parliamentary functions.¹⁶⁵ There are pilot applications under consideration, including data analytics and natural language processing to gauge public concerns, AI-assisted transcription of proceedings, chatbot interfaces for citizen queries, and virtual research assistants to help MPs with legislative research.¹⁶⁶ For example, Parliament envisions AI chatbots that could summarise policies or answer questions using parliamentary data, aiding both lawmakers and the public in understanding legislation. Additionally, digital assistants could help MPs prepare for oversight duties by quickly compiling relevant information. These initiatives remain at the trial stage; no fully institutionalised AI system is yet in operation.¹⁶⁷

Thus far, Namibia has showcased regional cooperation. Namibia’s Parliament shares experiences through bodies like the SADC Parliamentary Forum, where the Speaker has urged neighbouring Parliaments to also “*embrace AI to improve parliamentary work*”¹⁶⁸. This collaborative approach may help Namibia benefit from others’ innovations as it cautiously introduces AI into its parliamentary toolkit.¹⁶⁹ Namibia is in the process of establishing a robust legislative framework to govern AI and digital transformation in the public sector. As of mid-2025, government is finalising three landmark bills: the Draft Artificial Intelligence Bill, the Data Protection Bill, and the **Cybercrime Bill**.¹⁷⁰ Together, these laws aim to establish a comprehensive governance framework for emerging technologies.

In summary, although Namibia does not yet have dedicated AI laws in force, it is on the cusp of enacting a forward-looking legal framework and governance structure to ensure any AI in public institutions, including Parliament, which operates under clear rules and oversight.

¹⁶¹ Ibid.

¹⁶² Reporter (2025).

¹⁶³ Ibid.

¹⁶⁴ Bússola Tech (2023)

¹⁶⁵ Ibid page 1 reporter

¹⁶⁶ Ibid.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

5.1.8.2 Challenges and Risks

The challenges that Namibia faces in efforts to integrate AI into parliamentary functions include *Legislative modernisation*, even though they have the Draft AI Bill, Data Protection Bill, and Cybercrime Bill, which offer a framework for ethical governance. The biggest challenge yet is implementation, which is constrained by funding, infrastructure, and limited human capacity.¹⁷¹ An AI readiness assessment launched in August 2025 underscores gaps in infrastructure, education, and policy coordination, impeding coherent deployment.¹⁷² Some regional perspectives echo these concerns: as at the SADC Parliamentary Forum, Speaker Saara Kuugongelwa-Amadhila highlighted shared barriers, including limited connectivity, skill shortages, and weak funding across African Parliaments¹⁷³. Another challenge, *Ethical risks*, ranging from algorithmic bias and data privacy breaches to the erosion of deliberative transparency (“black-box” concerns- many AI systems operate as “black boxes,” where the decision-making process is opaque, raising accountability and democratic concerns,¹⁷⁴ remain acute, especially without strong oversight frameworks in place.¹⁷⁵ Globally, many Parliaments lag in digital maturity. At the same time, 68% of legislatures now have multi-year digital strategies; those in sub-Saharan Africa operate with fewer digital systems and limited public engagement capacity.¹⁷⁶ Addressing these challenges will require major investments, clear legal frameworks, skills training, and incremental adoption.¹⁷⁷

5.1.8.3 Opportunities and Lessons for Other Parliaments in the Region

Namibia offers instructive insights for other Parliaments in the region embarking on digital and AI transformation. Its legislative groundwork, the development of dedicated AI, data protection, and cybercrime laws, alongside a National AI Strategy, demonstrates proactive governance planning.¹⁷⁸ The country’s AI Readiness Report, crafted in partnership with UNESCO, highlights key areas for building a vigorous ecosystem: infrastructure improvement, STEM and AI education, data governance, and inclusive access.¹⁷⁹ Namibia’s engagement with SADC and calls for regional judicial frameworks highlight how joint approaches can pool resources and harmonise AI ethics across countries.¹⁸⁰

Namibia’s Parliament’s emphasis on ethical deployment tools is strengthened by oversight bills and strategic technical bodies that set a standard for other legislatures, balancing innovation with democratic integrity.¹⁸¹ In a global context, multi-year digital strategies and e-Parliament tools (like live-streaming and online engagement) are critical first steps; Namibia’s roadmap reflects this, aligning with the digital maturity frameworks outlined in the IPU’s 2024 e-Parliament Report.¹⁸² Taken together, these developments offer a roadmap for Parliaments with limited resources to adopt technology thoughtfully, aligned with governance norms and regional collaboration.

¹⁷¹ News Desk (2025).

¹⁷² Xinhua (2025).

¹⁷³ Ibid.

¹⁷⁴ Böhmer (2024).

¹⁷⁵ New Era Live (2025).

¹⁷⁶ IPU (2024).

¹⁷⁷ Ibid.

¹⁷⁸ News Desk (2025).

¹⁷⁹ Xinhua (2025).

¹⁸⁰ NBC News Namibia (2025).

¹⁸¹ New Era Live (2025).

¹⁸² IPU (2024).

5.2 International

5.2.1 United Kingdom

The UK Parliament is actively exploring and implementing AI to enhance its operations, with a focus on transparency, efficiency, and public engagement. A Speaker's Steering Group on AI is guiding this effort, focusing on incremental change and clear process definitions. AI is being utilised for tasks such as summarising documents, analysing data, facilitating public engagement, and even exploring its potential for drafting legislation.

- **Document Summarisation and Analysis:** AI can summarise lengthy bills, reports, and transcripts, making them more accessible to both lawmakers and the public. It can also analyse large volumes of text to identify key themes and insights, aiding in research and policy development.
- **Public Engagement:** AI tools can help analyse public submissions and feedback, potentially improving Parliament's response to citizen concerns and preferences.
- **Public Trust:** Transparency and public engagement are crucial for building trust in the use of AI in Parliament.
- **Legislative Support:** AI could assist in drafting legislation and amendments, as well as identifying potential legal precedents.
- **Efficiency and Transparency:** AI can help manage debate records, transcribe and translate content, and analyse data on parliamentary spending and MPs' financial interests.
- **Digital Innovation Lab:** The UK Parliament has established a "Digital Innovation Lab" to explore and test AI and other emerging technologies, including potential applications for Hansard (the official record of parliamentary proceedings) and the Table Office.

AI in the UK Government:

- **Bias and Fairness:** AI systems can exhibit bias, and it is essential to ensure that AI tools used in Parliament are fair and equitable.
- **Data Security and Privacy:** Parliament is also mindful of the need to protect sensitive data when using AI.

AI is playing an increasingly important role in the UK Parliament, with potential benefits for efficiency, transparency, and public engagement. However, some challenges must be addressed to ensure responsible, ethical implementation.

5.2.1.1 AI Governance in the UK Parliament

Though the UK does not have any regulations specific to AI governance, it does have an AI Safety Institute and a variety of principles-based soft law and policy initiatives, as well as binding regulations in other domains such as data protection and online safety.¹⁸³ Moreover, the development, integration, and responsible governance of AI are strategic priorities across UK policymaking and regulatory capacity-building. The UK is developing a regulatory framework for AI, focusing on addressing the risks posed by the most powerful AI models. The UK's AI governance framework is built on a pro-innovation approach, emphasising principles

¹⁸³ Jones and Brown (2024).

over rigid legislation. It aims to ensure safety, fairness, and accountability, while fostering the development of AI. It relies on existing regulatory bodies to interpret and apply these principles within their specific sectors.

5.2.1.2 *Artificial Intelligence Guide for Members of the UK Parliament*

The UK Parliament developed an Artificial Intelligence Guide for MPmembers of Parliament. This guidance has been collated to support Members of both Houses and their staff to make informed choices about their use of AI and in support of their Parliamentary duties. Some Members are already exploring how AI can help them to carry out their parliamentary duties more effectively. Others will prefer to proceed more slowly.

According to the UK Parliament, there is much that remains unknown about AI, including its potential applications, impacts and risks. As such, this guidance will continue to evolve. This guidance is intended to advise those who wish to use AI-driven tools to do so in an informed way, taking advantage of the opportunities AI presents, while mitigating the risks.

The guide focuses on how to engage with tools and systems that use generative AI. It points out the following:

- **Keep a human in the loop:** Whenever using content created by AI, it is essential to check that output closely for accuracy and to be certain that you are happy for it to be used.
- **Be aware of what you share:** What you enter into AI tools will be stored on a server that Parliament does not manage. The data you enter may be used and sold to third parties and may become publicly available. That data could also be used to train other AI models.
- **Use it if you wish:** Finding and using an AI tool is the best way to find out whether AI can support your work. If you do have ideas of how AI could be used to support Members, please share them by contacting the Digital and Data Skills Centre of Excellence. In using any AI tools, do consider the advice contained in this guide.

5.2.1.3 *Generative AI*

According to the UK Parliament, since 2022, the public perception of AI has been dominated by one sub-field: generative AI.

Generative AI is a model that generates text, images, audio, video, or other media in response to user prompts. It uses machine learning techniques to create new data with characteristics like those of the data it was trained on. Generative AI applications include chatbots, photo and video filters, and virtual assistants. It is helpful for content generation (including both written and visual media). It is also beneficial for summarising a wide range of documents (so long as all those documents are already in the public domain).

Generative AI draws on massive datasets to generate realistic writing, text, imagery or even software code, often in response to questions (known as 'prompts'). It gives the appearance of intelligence by responding to prompts by predicting the most likely response. Examples of standalone generative AI tools include OpenAI's ChatGPT or Grammarly. There is also

generative AI tools embedded in other products, including Google's Gemini and Microsoft's Copilot.

However, any output from a generative AI tool needs to be carefully reviewed for accuracy. It is less helpful in making predictions or forecasts, or for providing accurate answers to search queries. Improvements in the accuracy and reliability of AI tools continue, and new applications of generative AI (and AI more broadly) are regularly identified.

5.2.1.4 Microsoft's Copilot

The UK Parliament uses a version of **Microsoft's Copilot** tool, which is available to all parliamentary account holders. Copilot is an AI-powered assistant with a conversational interface, designed to help with tasks such as retrieving specific information, generating content (such as draft emails and summaries), and creating images from text prompts. It cannot retrieve any information from Parliament's Microsoft 365 applications, such as Outlook, OneDrive, and Word, so the content it generates is more generalised.

The House of Commons Library is providing training materials to Members and their staff to help identify reliable sources of information and spot misinformation. Members can contact the libraries of their respective Houses for advice.

5.2.2 Brazil

5.2.2.1 The Brazilian Artificial Intelligence Strategy

The Brazilian Artificial Intelligence Strategy (EBIA) was established to guide the Brazilian Government's actions in developing initiatives across its various aspects that stimulate research, innovation, and the development of AI solutions, as well as their conscious and ethical use.¹⁸⁴ EBIA covers the following areas:

- Legislation, regulation and ethical use;
- AI governance;
- International aspects;
- Qualifications for digital use;
- Workforce and training;
- Research, development, innovation and entrepreneurship;
- Application in the productive sectors;
- Application in public power; and
- Public security.

5.2.2.2 Legislation, Regulation and Ethical Use

A the centre of the Brazilian strategy is the (i) protection and safeguarding of human rights, including those associated with the protection of personal data and prevention of discrimination and algorithmic bias; (ii) the preservation of adequate structures to encourage the development of technology whose potential has not been fully understood; and (iii) the establishment of legal parameters that provide legal certainty regarding the responsibility of

¹⁸⁴ Ministry of Science, Technology and Innovations (2021).

the different actors that participate in the value chain of autonomous systems. EBIA states that, given the rapidly evolving nature of technological innovation, regulations may become obsolete quickly and hinder the responsible development and use of AI. Therefore, it adopts a wait-and-see strategy, in which the impact of AI is thoroughly studied. Nonetheless, it argues that concerns about human dignity and the enhancement of human well-being must be present from the conception of these solutions through to their verification in the reality of citizens.¹⁸⁵ Therefore, the strategy supports the following actions:

- Financing research projects that aim to apply ethical solutions;
- Encourage partnerships with corporations that are researching solutions for these ethical AI technologies;
- To establish, as a technical requirement in tenders, that bidders offer solutions compatible with the promotion of ethical AI;
- To establish, in a multisectoral way, spaces for discussion and definitions of ethical principles to be observed in the research and development of AI;
- To develop techniques to identify and mitigate the risk of algorithmic bias; and
- To create parameters about human intervention in AI contexts where the result of an automated decision implies a high risk of harm to an individual.

5.2.2.3 AI Governance

Ethics is one of the fundamental issues that EBIA addresses. The strategy calls for establishing mechanisms to prevent and eliminate biases that may result from algorithms and the databases used to train them. In this regard, the following actions are implemented:

- Encourage data sharing, observing the General Personal Data Protection Law (LGPD);
- Promote the development of voluntary and consensual standards to manage risks associated with AI applications;
- Encourage organisations to establish ethics committees in relation to AI;
- Connect with international AI organisations for benchmarking;
- Improve the quality of available data to facilitate the detection and correction of algorithm biases;
- Encourage dissemination of open-source codes capable of identifying discriminatory trends in data sets and machine learning models; and
- Develop guidelines for the draft of Data Protection Impact Reports.

5.2.2.4 International Aspects

EBIA advocates a proactive, purposeful stance at the international level to foster discussions, partnerships, and initiatives that establish forums to facilitate the adoption of norms and standards, conventions, and regulations that form the basis for international exchanges on AI and for economic integration. The following actions will facilitate this goal:

- Export of AI systems developed by Brazilian companies;
- Develop cooperative platforms for exchanging information in AI; and
- Promote the exchange of specialists who carry out research in AI.

¹⁸⁵ Ibid.

5.2.2.5 *Qualifications for Digital Future (Education)*

Unlike many countries that promote STEM subjects to develop AI, the Brazilian strategy states that other subjects, including languages, history, and economics, offer critical skills essential to the development and management of AI solutions. Skills acquired from other subjects, such as STEM, are vital because they are applied across various professional activities that utilise AI. Therefore, the Common National Curriculum Base (BNCC) shall:

- Develop digital literacy programmes in all areas of education;
- Expand to offer graduate and undergraduate programmes linked to AI; and
- Stimulate the development of interpersonal and emotional skills.

5.2.2.6 *Workforce Training*

EBIA recognises that AI requires new technical skills and, in some instances, new knowledge. As such, it advocates for the training opportunities of the current workforce to enable it to perform its tasks and prepare for the latest opportunities that will be created. This will be done by:

- Establishing partnerships with the private sector and institutions of education that will provide training and educational qualifications.
- Starting awareness campaigns on the importance of preparing for the development and ethical use of AI.
- Retaining specialised talents.
- Developing policies that encourage the training and qualifications of professionals
- Encouraging the composition of diverse AI teams in terms of gender, race and other socio-cultural demographics.

Research, Development, Innovation and Entrepreneurship

In research and development, EIBA recommends public and private investments to promote innovation in reliable AI that not only addresses technical challenges but also the legal, ethical, and social implications associated with AI. Moreover, it calls upon government to encourage investment in open databases that are representative of all demographics and respect privacy and personal data rights, to promote an environment for AI research and development free of bias, and to improve interoperability and the use of common standards.¹⁸⁶ Additionally, the strategy identifies the following roles to be the responsibility of government:¹⁸⁷

- Funder or investor;
- Flexible regulator; and
- Data administrator.

To achieve the above objectives, the following steps will be taken:

- Definition of priority areas for investment in AI;
- Expansion of possibilities of research, development, innovation and application in AI;

¹⁸⁶ Ministry of Science, Technology and Innovation (2021).

¹⁸⁷ Ibid.

- Promotion of a public policy environment that supports agile transition from the research and development to the operation phase; and
- Promotion of incentive mechanisms that encourage the development of AI.

5.2.2.7 Application in the Productive Sectors

One of the advantages of AI is that it can be used across all economic sectors, making businesses more effective, reducing costs, and minimising errors. However, there are challenges in identifying branches of AI use and market areas where investments can yield optimal outcomes. Identifying such areas is crucial because they can generate new jobs, attract IT investment, benefit the country across the public and private sectors, and elevate the country globally. To achieve this, the following actions are necessary:

- Identification of public-private governance frameworks to promote IT industries;
- Fostering the emergence of new business startups; and
- Facilitating collaborations between technology companies and small and medium-sized enterprises.

5.2.2.8 Application in Public Power

AI in the public sector would entail integrating scientific knowledge, technological advances, and AI to improve public services. A combination of data science, machine learning, and computational power transforms large amounts of data into relevant information that optimises decision-making processes. As such, the public administration should adopt responsible AI technologies to improve service delivery and service quality for the public.

5.2.2.9 Public Security

AI has enhanced security systems. Applications such as facial recognition, metal detectors, and others that detect people jumping over the walls have greatly improved public and private security. However, there have been challenges related to discrimination, bias, and false-positive identification. The Brazilian strategy identifies the following measures to take advantage of the opportunities and limit the challenges:

- Soft law challenges;
- Supervisory structure;
- Adoption of norms and standards;
- Data protection regulations applied to public security; and
- Implementation of a regulatory sandbox.

5.2.2.10 Critique Of Brazilian Ai Legislative Framework.

The National Congress, the country's legislature, led by the Federal Senate, its upper house, promulgated a Draft Bill 21/2020 whose purpose is to outline the principles and objectives, transparency and explainability, definitions and jurisdictional scope, civil liability, human supervision and review, risk management and enforcement mechanisms and regulatory design regarding the use of AI in Brazil. The Bill has important key articles that relate to the performance of individuals and legal entities in the development of AI in the country. In

particular, Article 5 (III) addresses the ethical question by requiring that agents involved in the development and operation of artificial intelligence systems seek to identify and mitigate biases that are contrary to the provisions of national legislation.¹⁸⁸ Thus, the Draft Bill recognises and acknowledges that AI may be manipulated to perpetuate social ills such as discrimination, prejudice, stereotyping, and persecution. Steps must be taken to militate against such occurrences. However, critics argue that the bill allows AI providers to avoid being duty-bound to avoid using AI for discriminatory, illicit or abusive purposes. They say that the nuances of Brazilian society must be reflected in the Article, that it must specifically address anti-racism, and that providers must actively commit to using AI to promote it.

In addition, Article 5 (V) outlines the regulations for requesting additional information and for respecting commercial and industrial secrets when there is a potential risk to fundamental human rights. The regulations state that individuals could request further information in the following cases:¹⁸⁹

- Interaction with AI systems such as chatbots
- To identify the individual or legal entity operating the AI system
- To know the general criteria that guide the functioning of an AI system

Critics argue that this article contradicts Article 20 of the Brazilian General Data Law (LGPD), which guarantees the data subject the right to request both the review of automated decisions and the provision of clear and adequate information regarding the criteria and procedures used for the automated decision.¹⁹⁰ Moreover, critics contend that the Article violates the international benchmark outlined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), which provides that individuals must not only have access to the data used in automated decisions, but also to the reasons for the results that affect their rights and freedoms. Moreover, they should challenge decisions to review and correct them. Thus, Article 5 (V) is viewed as a regression not only of the legislative framework but also of international conventions.

Finally, regarding the jurisdictional scope, critics of Draft Bill 21/2020 assert that it ignores a critical element of the Brazilian Strategy for Artificial Intelligence (EBIA), which clearly states that AI's impacts transcend national borders. They argue that the Draft Bill 21/2020 misses the opportunity to include Brazil in the development of criteria for the exercise of state power over technologies that are often transnational. In addition, Draft Bill 21/2020 has inconsistent and harmful civil liability rules. At best, it refers to the General Personal Data Protection Law's rules on civil liability, without specifics. At worst, it suggests guidelines for future legal rules, advocating their own rules of direct and fault-based liability, to be mitigated by the eventual adoption of reasonable efforts and best market practices.¹⁹¹ As such, there is no liability assigned to those who make mistakes, which is an ever-present risk when using artificial intelligence. Similarly, the bill does not provide for revision, unlike the General Personal Data Protection Law, which assures data subjects the right to review automated decisions that affect their interests. The right to review computerised decisions is necessary because some applications pose risks to fundamental individual rights. Moreover, the current bill does not

¹⁸⁸ Silva, Rodrigues, Roman, Brandao, Santarem and Viera (2022).

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

establish limitations on the development and technical application of artificial intelligence that could harm human rights. Thus, the bill lacks a risk management guideline. Consequently, several international ethical guidelines that Brazil has ratified cannot be implemented. Lastly, critics of the Draft Bill 21/2020 state that its design does not provide any inspection mechanisms to guarantee the effectiveness of its principles and objectives. It is limited to affirming the simulation of self-regulation through the adoption of codes of conduct and good practices guides, observing the principles provided for in the article and global best practices.¹⁹²

5.2.3 Iran

Iran has entered a new phase in its AI journey, marked by ambitious national strategies, growing research output, and a vibrant startup ecosystem. Despite international sanctions and infrastructure challenges, the country aspires to become a top-tier AI nation within the next decade.¹⁹³ Iran strives to rank among the world's top 10 AI powers, backed by plans for significant investment estimated at US \$8 billion. In pursuit of technological advancement, Iran has formulated a cohesive AI policy framework, which the Supreme Council of the Cultural Revolution approved. It serves as a comprehensive blueprint for AI development in the country (hereinafter, the strategy).¹⁹⁴

In summary, it mandates the creation of new governance structures under the President's supervision. The created governance structure is tasked with steering the country's AI ecosystem and ensuring it becomes one of the top 10 AI leaders globally within the next decade. It also seeks to expand Iran's AI infrastructure and talent pipeline, complementing earlier government initiatives rather than replacing them. In addition, the Seventh National Development Plan of Iran underscores the establishment of a national AI authority to champion AI for the country.

Regarding the legislature's role, the Islamic Consultative Assembly (Iran's Parliament) debated and approved the AI Bill, urging the executive to accelerate implementation of the goals set in the Strategy. Furthermore, the Islamic Consultative Assembly emphasised the urgent need to implement AI.¹⁹⁵

In addition, Iran is increasing its international collaboration and partnerships in AI with China and Russia. The partnerships seek to deepen cooperation in information technology, cybersecurity, and, potentially, AI R&D. Iran has also adopted Chinese approaches to building its National Information Network and to deploying Chinese AI surveillance technologies in its own systems. As in Kenya, the availability of infrastructure in Iran is not explained, including its capacity and human resources. Also not mentioned is the question of basic education, specifically the offering of robotics and technology courses to young people.

5.2.4 Russia

Russia views AI as a strategic technology essential to national security, economic

¹⁹² Ibid.

¹⁹³ Frąckiewicz (2025).

¹⁹⁴ Ibid.

¹⁹⁵ Ibid.

modernisation, and global competitiveness. While the country lags behind global leaders like the US and China in AI innovation and investment, it has made significant strides through state-led initiatives, military applications, and partnerships with major domestic corporations.

National Strategy and Policy Framework¹⁹⁶

In October 2019, President Vladimir Putin signed Decree No. 490, approving the National Strategy for the Development of AI through 2030. The strategy outlines goals such as:

- Advancing scientific research in AI;
- Expanding access to computing infrastructure;
- Enhancing AI education and workforce development; and
- Integrating AI into public administration and national defence.

The strategy is part of the broader Digital Economy of the Russian Federation programme and includes a dedicated federal project on AI.

5.2.4.1 Key Stakeholders and Institutions

Sberbank, Russia's largest state-owned bank, plays a central role in AI development, leading the creation of the national AI roadmap.

Major tech firms such as Yandex, Mail.ru Group, and Gazprom Neft are part of the AI Russia Alliance, which promotes AI adoption across sectors such as autonomous transport and industrial automation.¹⁹⁷

The Russian Ministry of Defence (MOD) is heavily involved in AI R&D, particularly for military applications.¹⁹⁸

5.2.4.2 Military and Security Applications¹⁹⁹

Russia is investing in AI for:

- Uncrewed systems (UAVs, maritime, and ground vehicles);
- C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance);
- Cyber and information warfare; and
- Decision-support systems for battlefield operations.

AI is seen as a key enabler of "intellectualised warfare," where data-driven systems support or replace human decision-making in combat scenarios.

5.2.4.3 Challenges²⁰⁰

- Limited private investment and a small venture capital ecosystem.
- Brain drains and underfunded academic research.

¹⁹⁶ CSET (2019).

¹⁹⁷ Markotkin and Chernenko (2020).

¹⁹⁸ Bendett (2024).

¹⁹⁹ Bendett (2024).

²⁰⁰ Polyakova (2018).

- Dependence on state-owned firms may stifle innovation.
- Sanctions and export controls restrict access to advanced hardware and software.

5.2.4.4 Opportunities

Russia has strong capabilities in mathematics, physics, and engineering, which underpin AI development. Government is prioritising AI in public services, transport, and energy. AI is also being explored for language processing, facial recognition, and predictive analytics in law enforcement and governance.

Russia's AI strategy is ambitious and state-driven, with a strong focus on national security and industrial modernisation. While structural and geopolitical challenges persist, the country is positioning itself as a regional AI power with growing capabilities in both civilian and military domains.

5.2.5 China

In recent years, China has emerged as a pioneer in drafting some of the earliest and most comprehensive legislation regulating AI services.²⁰¹ In late 2021, the country unveiled the world's first comprehensive regulation specifically designed to regulate recommendation systems powered by algorithms.²⁰² Subsequently, the Cyber Space Administration of China (CAC) introduced a set of measures in early 2023 to curb the production of deepfakes, making China the first country to address the explosive growth of this area of AI advancement.²⁰³

When ChatGPT emerged in November 2022, Chinese regulators reacted swiftly with a spate of enforcement and legislative actions.²⁰⁴ The CAC released draft measures on generative AI in April 2023, making China the first country to propose comprehensive rules to regulate this transformative technology.²⁰⁵ Within three months, China finalised the rules and introduced a comprehensive range of obligations for providers of generative AI services.²⁰⁶ Similar to recommendation algorithms and deepfakes, those generative AI services that can shape public opinion must undergo a security assessment and register their algorithms with the CAC before market launch.²⁰⁷ This requirement for ex ante security assessment makes China the first and only country to mandate a licensing requirement for the launch of such services.²⁰⁸

China's recent AI legislative developments are frequently regarded as indicative of the country's ambition and capacity to become a global leader in AI regulation and governance.²⁰⁹ Matt Sheehan, a highly regarded expert in Chinese AI policy, suggests that the United States of America can gain valuable insights from China's targeted, iterative approach to AI governance.²¹⁰ Meanwhile, industry experts caution that Beijing's regulatory approach could become a potential obstacle to Chinese innovation. They underscore the extensive range of

²⁰¹ Sheehan (2023a).

²⁰² Zhang (2024).

²⁰³ Ibid.

²⁰⁴ Zhou (2023).

²⁰⁵ Zhang (2024); Zhou (2023).

²⁰⁶ Ibid.

²⁰⁷ Yuan and Zhu (2023).

²⁰⁸ Ibid.

²⁰⁹ Abiri and Huang (2023).

²¹⁰ Sheehan (2023b).

obligations imposed on tech firms, encompassing content moderation, data protection, intellectual property and ethical issues.²¹¹

Such concerns are not unwarranted. Between 2020 and 2022, China undertook a sweeping crackdown on its tech firms, launching high-profile cases and imposing sanctions at an unprecedented pace.²¹² The velocity of China's tech crackdown dwarfed the more measured pace of US and European regulators, which are often constrained by lengthy legislative processes and judicial oversight.²¹³ Yet the erratic nature of Chinese tech policy has unnerved investors, precipitating severe, unintended consequences that have deterred investment and entry into the consumer tech business.²¹⁴

The Two Sessions, China's most significant annual political event, began on 4 March 2025. This joint meeting brings together the National People's Congress (NPC), the country's legislative body, and the Chinese People's Political Consultative Conference, an advisory body for policy consultation and legislative recommendations.²¹⁵

Amid growing interest in Chinese tech startup DeepSeek, AI emerged as a significant topic of discussion during the meeting. The 2025 Report on the Work of the Government, presented by the Premier of the State Council, once again highlighted AI as a key sector for national innovation and industrial advancement. The report outlines plan for expanding government support and investment in AI research and development.²¹⁶ It also emphasises the importance of encouraging collaboration between major research institutions, universities and enterprises to support a broad spectrum of AI-related technologies, ranging from core AI advancements to next-generation innovations integrating quantum computing.

Along with high expectations for AI development, concerns were raised over the misuse of technology, including deepfakes, with an emphasis on the need for stronger regulations. Some attendees proposed measures to curb the misuse of face-swapping and voice-cloning technologies, calling for industry-wide AI regulations and the establishment of a dedicated AI law to ensure responsible AI applications.²¹⁷

Notably, China has been systematically regulating AI technology from an early stage. The Interim Measures for the Management of Generative Artificial Intelligence Services, implemented in August 2023, currently serve as the country's comprehensive regulatory framework.²¹⁸ However, this framework remains an administrative guideline jointly issued by government agencies rather than a formal legislative act.

On 17 June 2025, representatives of China's NPC proposed a motion for a comprehensive AI law, citing the inadequacy of existing regulations such as the Data Security Law and the Personal Information Protection Law in addressing AI's cross-regional complexities.²¹⁹ The proposal includes incentive policies for innovation, classification of AI risks, regulatory

²¹¹ Tobin (2023).

²¹² Zhang (2022).

²¹³ Zhang (2024).

²¹⁴ Ibid.

²¹⁵ Inter-Parliamentary Union (2025).

²¹⁶ Ibid.

²¹⁷ Ibid.

²¹⁸ Ibid.

²¹⁹ Data Guidance (2025).

measures, evaluation of social impacts, ethical considerations, and international cooperation strategies. It also seeks to clarify legal responsibilities, including definitions of illegal acts and compensation mechanisms.²²⁰

5.2.6 Canada

The official website highlights that the Parliament of Canada advertises and urges individuals from lawyers to graphic artists, policy advisors to senators' staff, recruiters to computer programmers, and broadcasters to cybersecurity experts, to apply for vacancies when such are advertised. Exploring the structure of the Parliament of Canada further, the following was found:



Figure 7: Structure of the Parliament of Canada

Searching for an organisational structure on the official website of the Parliament of Canada.²²¹ The following is presented:

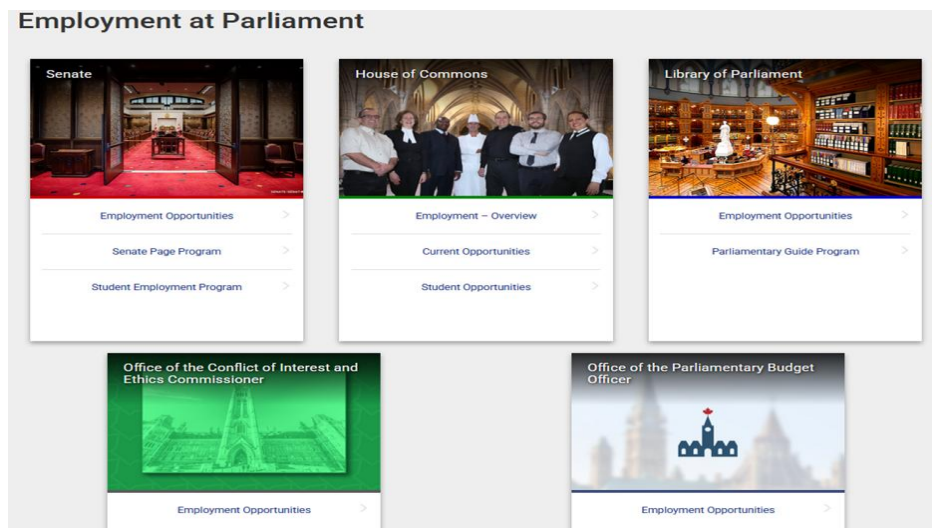


Figure 8: Organisational structure of the Parliament of Canada

²²⁰ Ibid.

²²¹ Parliament of Canada [online]. <https://www.parl.ca/>

The House of Commons Administration structure was identified as follows, as presented on the official website.

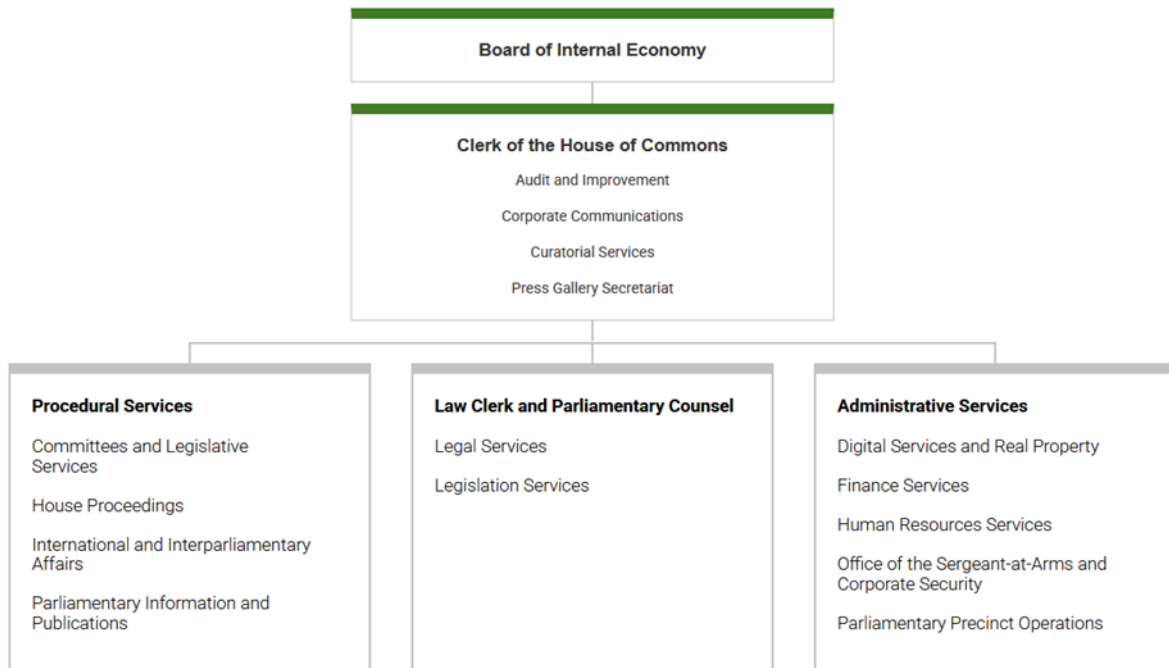


Figure 9: House of Commons Administration structure

Compared with, as an example, the Parliament of Botswana, as noted previously, the Wikipedia page for the Parliament of Canada contains substantially more information. The following is noted under Wikipedia for further information purposes:²²²

*The Parliament of Canada (French: *Parlement du Canada*) is the federal legislature of Canada. The Crown, along with two chambers: the Senate and the House of Commons, form the bicameral parliament. The 343 members of the lower house, the House of Commons, are styled Members of Parliament (MPs) and are elected to represent an electoral district (also known as a riding). The 105 members of the upper house, the Senate, are styled senators and appointed by the governor general on the advice of the prime minister. Collectively, MPs and senators are known as parliamentarians. The election for the 45th Canadian Parliament was held on 28 April 2025, resulting in a Liberal minority government. Members of the two houses of Parliament must also express their loyalty to the sovereign and defer to his authority, as all new parliamentarians must swear the Oath of Allegiance before taking their seats. Further, the official opposition is formally known as His Majesty's Loyal Opposition, to signify that, though they may oppose the incumbent Cabinet's policies, they remain dedicated to the apolitical Crown. (Wikipedia).*

In essence, specific details regarding AI in the Parliament of Canada is not readily available via the relevant official website. This justifies the need to explore additional sources and the

²²² Wikipedia [online[b]]. Parliament of Canada. https://en.wikipedia.org/wiki/Parliament_of_Canada

AI footprint in Canada. It is acknowledged that a search engine is available on the Parliament of Canada's website, indicating the advanced functions available there.

Building on the above, a request was forwarded to the Library of the Parliament of RSA regarding accessible resources on AI in the Parliament of Canada. The request included the release of any other relevant sources, noting AI in Canada . The following section presents the insights gained.

5.2.6.1 AI in Canada

Von Lucke, Fitsilis, & Gagnon [no date] argue that “it is reasonable to anticipate that AI-driven changes will manifest in parliamentary operations” and explore the use of AI-based tools and services within the Canadian Parliament. Their approach involved a “brainstorming exercise in July 2020 and a virtual workshop in September 2023” to collect data. Overall, Von Lucke et al. found that the Parliament of Canada is already using AI technology within the parliamentary workspace and provides the following list as a summary of such: ²²³

- AI-based translation services (texts);
- Intelligent, AI-based search functions in the front end of the parliament's website;
- AI-based translation services in real time for TV appearances/video appearances/video conference/ diplomacy/ webinars/seminars/conferences (Babelfish);
- AI-based real-time subtitling of speeches by MPs in Parliament;
- AI-based translation of parliamentarians', political groups' and parliament's texts for TV/ radio/web/social media channels;
- AI-based cybersecurity software;
- AI-based real-time translation of speeches made by minority members of parliament in their mother tongue;
- AI-based automatic text and speech capture;
- Clear accountability structures; and
- Virtual AI assistants for people with disabilities (e.g., reading and navigation aids) on the websites of the Parliament.

In addition, Von Lucke et al. revealed that the Parliament of Canada was, during the period of this study, being cited, preparing a significant revision of privacy laws, and concurrently working on legislation specifically tailored to regulate AI effectively. Tensions identified as impacting the process involve legal issues, such as intellectual property rights and copyrights for training data, which, according to Von Lucke et al., have not been conclusively clarified.

Fitsilis, von Lucke & De Vrieze (2024) noted that Canada was grappling with an IT budget scandal stemming from procurement mismanagement during the development of the “ArriveCan app”. Challenges and public outrage ensued as it was identified that “elected officials prioritised digital transformation without sufficient expertise, resulting in irresponsible spending decisions”. A likely consequence of this is that “the IT team of the Parliament of Canada is likely to move towards a safer or rather less risky portfolio of projects and therefore might look for low-hanging fruit and not for complex approaches”.

²²³ Fitsilis, von Lucke and De Vrieze (2024).

Fitsilis et al. (2024) urge legislative bodies and external stakeholders to engage in discussions regarding the use of AI within the parliamentary setting on matters such as:

- The boundaries of AI;
- The implementation of necessary regulations; and
- The collaborative design of solutions by the stakeholders.

The occurrence of AI in Canada is explored further in the sections to follow:

5.2.6.2 AI governance practices

It is claimed that “Canada was the first nation to implement a national AI strategy’ and therefore offers “a uniquely information-rich national AI governance context’.²²⁴ Concerning challenges, the following have been identified:²²⁵

- Public mistrust in AI technologies;
- Inadequate public engagement on major AI governance initiatives;
- Concerns linked to accountability in the public funding and public procurement of AI technologies;
- Concerns associated with the commercialisation, adoption, and retention of Canadian AI innovation and talent; and
- Concerns linked to the protection of consumers, workers, and citizens against harmful practices of AI use.

To clarify concepts, AI governance practices involve:

“AI governance practices are intended to intervene in the impacts of AI systems through the design and implementation of several types of initiatives, including strategies, policies, government programs, technical standards, and ethics statements.”²²⁶

AI is clarified as follows:

“AI is often characterised as a type of technological system that is capable of performing cognitive activity within a specific application context and with some degree of autonomy from human actors.”²²⁷

AI governance is clarified as follows:

“Scholars tend to characterise AI governance as a practice intended to maximise various types of beneficial impacts and minimise various types of harmful impacts in the development and use of AI systems.”²²⁸

²²⁴ Attard-Frost, Brandusescu and Lyons (2024).

²²⁵ Ibid.

²²⁶ Ibid.

²²⁷ Ibid.

²²⁸ Ibid.

To support a nationally unified approach to AI governance in Canada, the following initiatives are centralised under the Department of Innovation, Science and Economic Development Canada (ISED). The four centralised initiatives require policymakers and public servants to heed the following:²²⁹

- Specify success measures for initiatives and routinely publish information on initiative outcomes.
- Collaborate more directly with the public on designing and implementing initiatives.
- Account for a greater variety of AI impacts when designing and implementing initiatives.
- Launch a new initiative to cultivate a more unified national approach to AI governance.

It emerged that centralising the above might lead to overreliance on ISED to administer multiple AI governance initiatives of great national significance. This implies that it may limit Canada's ability to intervene in a wide range of AI impacts effectively. Mathieu notes two ways of looking at AI. The first is "AI systems are technical pieces of software, fed instructions, and asked to complete certain tasks". The second, "AI systems are technical and social systems that reflect the implicit values of the people designing the system, and biases in data".²³⁰

Building on the second, it is argued by Mathieu that the social-technical nature of AI creates several governance challenges that policy makers need to keep in mind, while considering options for governing AI, such as:²³¹

- Through skewed outputs, AI systems can reflect the biases of their designers or replicate and magnify the biases contained in the data used to develop the systems.
- It can also be almost impossible to evaluate and explain the output of an AI system because of the highly complex techniques used to develop the system.
 - This problem is compounded by software firms that go to great lengths to keep the source code for the AI systems they develop private and proprietary to themselves.

Mathieu [no date] urges for relevant Bills/Legislation to "mandate the use of quality, non-biased data, and by setting out a right for a citizen not to be subject to a decision arrived at solely by an AI system". It is noted that this recommendation was specific to Bill C-27, the *Digital Charter Implementation Act*, relevant to Canada.²³²

5.2.6.3 Deploying AI

Currently, in the federal public administration of Canada, "technology is being deployed in a variety of areas, but rarely, if ever, displacing human decision making". It was identified that technology is often leveraged in areas of public policy that do not involve settling benefits, statuses, licenses, and so on.²³³

²²⁹ Ibid.

²³⁰ Mathieu [no date].

²³¹ Ibid.

²³² Ibid.

²³³ Daly (2023).

*We are still a long way from sophisticated machine learning tools deciding whether marriages are genuine, whether taxpayers are compliant or whether nuclear facilities are safe. The reality is more down-to-earth.*²³⁴

The primary accountability mechanism for the use of AI systems is the notion of impact concerning automated decision-making. Impact can be defined as the effect on the rights of individuals or communities; the health or well-being of individuals or communities; the economic interests of individuals, entities, or communities; and the ongoing sustainability of an ecosystem. The analysis of Daly (2023) concerning AI use in public administration allowed for the identification of the following seven different use cases:

- Enhancing the accessibility of public-facing resources;
- Using information to create and enhance models of natural and human activity;
- Assessing performance;
- Managing enforcement resources;
- Advising on eligibility;
- Triaging applications; and
- Assisting with or making eligibility decisions.

Daly (2023) concludes that within the context of AI in public administration in Canada, there is no evidence that “bot barbarians” are about to storm the gates of the Government of Canada. Neither evidence “that machines are going to carry Canadians to a utopia of quick, easy and accurate decision-making.” The reality identified is that “most of the uses are so far upstream from decision-making that the benefits promised by some of the more bullish technology boosters are some way off in the distance.”²³⁵

Reflecting on the above, in the context of public administration in Canada, critical decisions are made by humans, with at most input from AI, based on the information and infrastructure available to them. At this point in the brief, AI enhances existing capacity but may be constrained by current capacity limitations within the public administration system and by the infrastructure needed for AI to function optimally.

McGee states that the latest AI tool (as of this writing) is ‘DeepSeek’. “DeepSeek’ is a cutting-edge artificial intelligence assistant that can perform a wide range of tasks. ‘DeepSeek’ was tested for its capacity to make critical decisions in a study that asked, “whether it would be a good idea to admit Canada as the fifty-first state, either from the perspective of people currently living in the United States or from the Canadian perspective”.²³⁶ The process that unfolded is summarised below:

Table 1: Should Canada become the fifty-first state of the United States?

Instruction	First Instruction/Prompt
	<i>Should Canada become the fifty-first state of the United States? Write an essay giving the pros and cons, both from the perspective of people who live in the United States and people who live in Canada. What are the pros and cons for each of the two groups?</i>
Author Comments	Reflections based on the answer/decision presented by DeepSeek

²³⁴ Ibid.

²³⁵ Daly (2023).

²³⁶ McGee (2025).

Note that references 4 and 8 are missing. That is because DeepSeek did not cite those references in the text it created. Another thing is worth mentioning. In a prior study [99], DeepSeek created references out of thin air. They looked quite plausible. Real authors were listed. Plausible titles were listed. Real journals, volumes and issues were listed, as were actual page numbers that were included in a real volume and issue. But the articles cited did not exist. When asked why DeepSeek provided non-existent references, it apologised, stating that it did not have access to the relevant databases and was therefore unable to cite actual references. The references it provided were a synthesis of studies it found, without consulting relevant academic (medical) databases. Thus, authors who use DeepSeek or other AI assistants must exercise due diligence, verify the accuracy of references, and ensure the entities they reference actually exist.

Instruction	Updated instructions to remedy challenges from the previous response
--------------------	----------------------------------------------------------------------

If Canada became the fifty-first state, what is the probability that Canadians would vote democratic? Republican? Write an essay on this question and give the reasons for the position you took.

Author Comments	Concluding remarks
------------------------	--------------------

According to the DeepSeek analysis, it would not be in the best interest of Republicans to admit any part of Canada as a state. Still, it would be in the Democrats' best interest to do so, since it would increase their numbers in both the House and the Senate. Democrats could gain more than 50 House seats and two Senate seats. Admitting each province and territory as a separate state would give the democrats a permanent majority in both the House and Senate (to the extent that anything in politics is permanent). Its 10 provinces and 3 territories could yield as many as 26 new democrat senators and more than 50 House members.

The above was presented to highlight that AI can assist with processes involving high-level decision-making in a political and country-wide context. Still, the responses or recommendations generated by AI must be verified for accuracy. In addition, references cited by AI must be verified as actually existing.

AI in Canada was explored above, and the following key insights were gained:

- AI governance is a challenge, even in countries that were early adopters of AI technology.
- Public trust is a challenge in terms of the use of AI by government, Parliament, and business in Canada.
- The expenses involved in using and developing AI serve as an opportunity for corruption, and there have already been linked challenges in Canada.
- AI is not perceived as an immediate risk in terms of replacing humans in making decisions in Canada.

5.2.7 Germany

Germany ranks among the top ten globally for government readiness in AI. It is evaluated by the Organisation for Economic Co-operation and Development (OECD) as having a robust policy framework and substantial federal investment.²³⁷ The German Bundestag has introduced an AI Cloverleaf Model to prioritise use cases, while incorporating checks and balances on ethics, oversight, and risk management across various departments. According to the Inter-Parliamentary Union, this model delivers extensive research and categorises parliamentary AI applications into three overlapping areas:²³⁸

- Legislative process: This area includes essential parliamentary activities such as

²³⁷ Inter-Parliamentary Union (2022).

²³⁸ Ibid.



drafting legislation, preparing committees, and organising debates. AI applications here range from automating legal research to creating briefing documents.

- Support services: This sector encompasses Parliament’s research, library, translation, and technical infrastructure units. These departments benefit from AI-driven content analysis, capabilities for multilingual support, and information synthesis.
- Internal administration: This category comprises the institution’s human resources, procurement, IT support, and compliance functions. In this domain, AI enhances routine workflows, improves tracking tools, and optimises decision-support systems and resource allocation processes.

The adoption of this AI model in Parliament enables scalability beyond individual pilot projects through centralised guidance and risk management, supporting compliance with the EU AI Act within the parliamentary administration.²³⁹ Furthermore, the Parliamentary Union (2022) added that the adoption of AI models should focus on use cases such as transcription of debates and draft stenography, retrieval of legislative archives, drafting aids with human oversight, and internal knowledge support applications, as documented across Parliaments by the Inter-Parliamentary Union (IPU).

5.2.8 Italy

5.2.8.1 Legislative and Policy Context

Just like its European counterparts, Italy’s AI landscape is shaped by the European Union’s AI Act and broader EU data protection frameworks such as the General Data Protection Regulation (GDPR).²⁴⁰ At a national level, AI governance falls under the purview of the *Agenzia per l’Italia Digitale* (AgID) and the *Dipartimento per la Trasformazione Digitale*, which oversee digital innovation strategies across public institutions²⁴¹. The Italian Parliament has not yet passed a dedicated AI law. Still, it is actively engaging with the EU’s regulatory process, positioning itself to adopt national measures consistent with the AI Act’s risk-based framework.²⁴² The national “Strategia Nazionale per l’Intelligenza Artificiale” (2022–2024) emphasises ethical use, sectoral innovation, and skills development.²⁴³ Within parliamentary operations, AI adoption intersects with transparency and open-government mandates, as outlined in the *Piano Triennale per l’Informatica nella Pubblica Amministrazione*.²⁴⁴ This legal and policy environment provides a structured foundation for experimentation with AI tools, while also constraining deployment to ensure compliance with EU-wide standards. Italy’s emphasis on alignment with European law offers a model for other jurisdictions seeking to integrate national AI initiatives into supranational regulatory regimes.²⁴⁵

5.2.8.2 Institutional Arrangements

AI-related initiatives in Italy’s Parliament are coordinated by its in-house ICT services, the Servizio Informatica della Camera dei Deputati and the Servizio Informatica del Senato, which

²³⁹ Fitisilis (2021).

²⁴⁰ European Parliament and Council (2016); European Commission (2024).

²⁴¹ AgID (2023).

²⁴² HSF Kramer (2025).

²⁴³ Ministero dello Sviluppo Economico (2022).

²⁴⁴ AgID (2023).

²⁴⁵ DLA Piper (2024); AgID (2023).

collaborate with national digital governance bodies.²⁴⁶ Both these units manage the integration of emerging technologies into legislative processes, from digital document management to public-facing services. Italy participates in EU-wide parliamentary networks, such as the European Centre for Parliamentary Research and Documentation (ECPRD), to exchange best practices on AI applications.²⁴⁷ Notably, the Italian approach to AI governance in Parliament is decentralised within its two-chamber system, with each chamber retaining full autonomy over its technology policies. This coordination component is achieved through joint committees when cross-cutting digital transformation issues arise. This dual structure allows flexibility but also requires strong inter-chamber communication to ensure consistent implementation of AI-enabled reforms.²⁴⁸

5.2.8.3 AI Use Cases in Parliament

Italian parliamentary AI initiatives are primarily in exploratory phases. Applications include automated transcription of debates, semantic search within legislative archives, and the use of natural language processing (NLP) to summarise committee reports.²⁴⁹ AI-driven translation tools are also being tested to improve accessibility for multilingual interactions within the EU.²⁵⁰ Beyond internal efficiency, there is interest in deploying AI chatbots to assist citizens in navigating parliamentary procedures, as pilots in other EU legislatures have done.²⁵¹ However, these projects remain under careful review to address “black box” concerns, where decision-making processes within AI systems may lack transparency, particularly in contexts involving legislative interpretation or public information provision. The Italian Parliament is also exploring AI-assisted data visualisation tools to support MPs in understanding complex datasets related to economic and social policy, potentially improving evidence-based decision-making.²⁵²

5.2.8.4 Challenges and Risks

Italy faces several constraints in embedding AI within parliamentary processes. Technical capacity gaps persist, with many parliamentary staff requiring upskilling in data science and AI ethics.²⁵³ Funding limitations can delay infrastructure upgrades, especially given competing budgetary priorities in other legislative areas.²⁵⁴ Yet, legal uncertainty remains until the EU AI Act is fully implemented, which can make institutions risk-averse in deploying advanced AI systems.²⁵⁵ Ethical risks such as algorithmic bias, misinformation, and reduced human oversight are actively debated, with the *Garante Privacy* emphasising the need for explainable AI models in public governance.²⁵⁶ “Black box” concerns are particularly relevant where AI outputs could influence parliamentary decision-making without clear traceability.²⁵⁷ Institutional inertia presents another barrier, as some MPs prefer established manual processes over digital tools, slowing adoption. Addressing these challenges will require

²⁴⁶ AgID (2023).

²⁴⁷ Ibid.

²⁴⁸ Bertelsmann Foundation (2024).

²⁴⁹ Bonomi (2024); IPU (2022).

²⁵⁰ IPU (2024c).

²⁵¹ DLA Piper (2023).

²⁵² IPU (2024a).

²⁵³ UNESCO (2021).

²⁵⁴ Bonomi (2024).

²⁵⁵ Reuters (2025).

²⁵⁶ Garante Privacy (2024).

²⁵⁷ Burrell (2016).

sustained investment, robust legal frameworks, comprehensive staff training, and incremental adoption strategies.²⁵⁸

5.2.8.5 Opportunities and Lessons for Other Parliaments

Italy's AI journey offers transferable insights for other legislatures. First, its alignment with EU regulatory frameworks ensures consistency and legal certainty, a principle relevant for regional blocs worldwide. Second, Italy's bicameral coordination model demonstrates how legislative chambers can retain autonomy, while pursuing joint technology strategies. Third, early adoption of AI, specifically in low-risk domains such as transcription and document search, shows how Parliaments can build trust incrementally. Fourth, Italy's emphasis on explainability and compliance with GDPR provides a robust ethical foundation, ensuring that AI supports rather than undermines democratic accountability.²⁵⁹ Finally, Italy's participation in international parliamentary networks illustrates the value of cross-jurisdictional collaboration in accelerating AI adoption. These experiences suggest that successful parliamentary AI integration depends not only on technology, but also on governance structures, stakeholder buy-in, and alignment with overarching democratic values.

6. DATA ANALYSIS

6.1 Document Analysis

The study used qualitative document analysis to examine official reports, policy frameworks, and strategic plans from regional and international Parliaments. Key sources include:

- National AI strategies (e.g., Kenya, Namibia, Brazil);
- Parliamentary resolutions (e.g., SADC Parliamentary Forum); and
- International guidelines (e.g., IPU, WFD, UNESCO).

This method allowed researchers to extract insights on:

- AI integration levels;
- Governance structures;
- Ethical and legal considerations; and
- Public engagement mechanisms.

6.2 Thematic Analysis

Recurring themes identified include:

- **Ethical Governance:** Concerns about bias, transparency, and accountability.
- **Infrastructure Readiness:** Varying levels of digital maturity across Parliaments.
- **Legislative Oversight:** The role of Parliaments in regulating AI use.
- **Public Engagement:** Use of AI to enhance citizen participation.
- **Regional Disparities:** Differences in AI adoption between developed and developing countries.

The comparative analysis of AI integration across global Parliaments reveals a spectrum of

²⁵⁸ OECD (2022).

²⁵⁹ European Commission (2024).

adoption, governance maturity, and ethical considerations. **Angola** represents early-stage implementation, focusing on basic automation and citizen engagement, but faces significant infrastructure and skills deficits. In contrast, **Russia** demonstrates advanced AI use in legislative drafting and analytics, though it grapples with ethical issues like privacy and bias.

South Africa is actively shaping its AI landscape through policy frameworks such as the AIISA and pilot projects, including chatbot deployments. However, formal regulation remains underdeveloped. Similarly, **Namibia** and **Kenya** are crafting inclusive AI strategies, but struggle with infrastructure and educational limitations.

Canada and **Germany** stand out for their structured approaches. Canada leverages AI for accessibility and administrative efficiency, though governance challenges persist, particularly around public trust and procurement. Germany, aligned with EU standards, emphasises ethical deployment and transparency, demonstrating a balanced approach to innovation and oversight.

Italy mirrors Germany's structured governance, while **China** exhibits aggressive regulation, especially around generative AI and deepfakes. Despite strong state-led control, concerns linger about stifling innovation. **Brazil** combines robust strategy with ethical challenges, reflecting the tension between rapid adoption and responsible governance.

The findings underscore that while AI is revolutionising parliamentary functions from legislative research to public engagement its deployment is uneven. Ethical governance, infrastructure readiness, and public trust emerge as critical factors. Countries with mature strategies and strong oversight, like Germany and Canada, lead the way, while others like Angola and Botswana remain in foundational phases. The study highlights the need for capacity-building, international collaboration, and adaptive governance to ensure AI enhances democratic integrity rather than undermines it.

7. RESULTS AND FINDINGS

The study reveals a wide disparity in how Parliaments across the globe are adopting and integrating AI:

The adoption of AI across global Parliaments varies widely, reflecting differing levels of digital maturity, governance structures, and national priorities. Some countries most notably **Russia and Canada** are already operating at an advanced stage of AI integration, using these technologies for legislative drafting, complex data analytics, and a range of administrative automation functions. Others, such as **Angola, Botswana, and Namibia**, are still in the early phases, where AI serves mainly as a tool for basic automation and enhancing public engagement. In contrast, countries like **Germany and Italy** demonstrate a more structured approach. Their AI initiatives are anchored in robust governance frameworks aligned with European Union standards, with an emphasis on transparency, ethical deployment, and responsible innovation.

Across all contexts, AI presents significant opportunities for strengthening parliamentary performance. It has the potential to enhance legislative efficiency, improve transparency, and deepen citizen engagement. Practical benefits already being realised include improved

document management, automated transcription and translation services, and more accessible public communication. AI is also increasingly used to support policy analysis, monitor public sentiment, and reinforce oversight functions making it a valuable asset for evidence-based decision-making.

Despite these advantages, several challenges accompany AI's integration into parliamentary environments. Ethical concerns remain central, particularly in relation to bias, data privacy, and the opacity of AI decision-making processes. Infrastructure limitations especially in developing countries continue to hinder wider deployment and the effective use of AI tools. Public mistrust also persists, fuelled by fears of surveillance, misinformation, and misuse. Compounding these issues is the regulatory lag evident in many jurisdictions, where formal legislation and oversight mechanisms have not yet caught up with the speed of technological change.

These governance gaps are especially visible in countries such as **South Africa and Ethiopia**, where draft policies exist, but enforceable legislation is still lacking. Meanwhile, countries with more developed AI strategies, including **Brazil and China**, face criticism related to ethical safeguards and the enforcement of their frameworks. A comparative view reveals that **Germany and Canada** have emerged as leaders, supported by strong national strategies and comprehensive governance structures. **South Africa and Namibia** show steady progress but require more robust legislative integration to advance further. **Angola and Botswana**, by contrast, remain at foundational stages. Although **China and Brazil** have ambitious strategies, they continue to confront concerns regarding ethical governance. Russia stands out for its sophisticated use of AI in legislative processes but ranks poorly on ethical protections. Ultimately, AI integration within Parliaments is not merely a technical progression it is fundamentally a governance challenge. Effective adoption requires strong ethical frameworks, continuous capacity building, active international collaboration, and deliberate efforts to build public trust and promote transparency. As AI continues to transform parliamentary operations, its influence is most visible in areas such as legislative research and drafting, public engagement, and administrative efficiency. However, the associated risks bias and discrimination, privacy violations, lack of accountability, and threats to democratic integrity through deepfakes or misinformation underscore the need for responsible, well-regulated implementation.

8. RECOMMENDED AI TOOLS

To support the ethical, efficient, and inclusive integration of AI in the South African Parliament, the following AI tools and systems are recommended based on current strategic priorities, operational needs, and global best practices.



Figure 10: Recommended AI Tools

9. STRATEGIC RECOMMENDATIONS ON AI INTEGRATION

In addressing the weaknesses AI has shown, Parliaments have multiple roles to play, including legislation, increased public awareness of AI's shortcomings, and navigating the delicate balance between fostering technological innovation and safeguarding democratic values.

Table 2: Strategic Recommendations

CATEGORY	RECOMMENDATIONS
Governance and Regulation	<ul style="list-style-type: none"> • Develop comprehensive legislation to regulate AI use in society and parliamentary operations. • Benchmark against other Parliaments with successful AI integration. • Collaborate with Parliaments that have enforceable AI policies, especially within Africa.
Ethical and Responsible Use	<ul style="list-style-type: none"> • Ensure transparency, accountability, and ethical standards in AI applications. • Maintain human oversight in AI-assisted decision-making. • Align AI use with constitutional principles and democratic values.
Capacity Building	<ul style="list-style-type: none"> • Provide ongoing education and training for MPs and parliamentary staff on AI. • Partner with academic institutions and innovators to stay abreast of technological developments. • Establish dedicated innovation or technology units within Parliaments.
Public Engagement and Trust	<ul style="list-style-type: none"> • Promote public education and AI literacy, especially in local languages and among marginalised groups. • Use AI to enhance citizen engagement through chatbots, multimedia content, and plain-language summaries. • Foster public trust by publishing clear explanations of AI use in legislative processes.
Infrastructure and Data Readiness	<ul style="list-style-type: none"> • Invest in digital infrastructure and open data portals for legislative transparency. • Adopt interoperable formats (e.g., Akoma Ntoso XML) for legislative data. • Ensure equitable access to digital tools across constituencies.
International Collaboration	<ul style="list-style-type: none"> • Participate in regional and global forums (e.g., IPU, SADC PF) to share best practices. • Support South–South exchanges and build platforms for elected representatives to collaborate on AI governance.
Risk Mitigation	<ul style="list-style-type: none"> • Address risks such as bias, privacy violations, misinformation, and algorithmic opacity. • Implement auditing processes and impact assessments for AI systems. • Avoid overreliance on AI and ensure decisions are not made solely by machines.

Strategic Planning

- Develop or refine national AI strategies with clear goals, ethical safeguards, and implementation plans.
- Learn from early adopters like Canada to avoid pitfalls in AI governance and procurement.
- Use AI to support oversight functions, such as monitoring public expenditure and detecting corruption.

10. ISSUES FOR CONSIDERATION FOR PARLIAMENT

• **Legislative Development**

- Formalise AI legislation:
 - South Africa currently lacks a legally recognised definition of AI and enforceable laws regulating its use in Parliament.
 - Parliament must enact comprehensive laws to regulate AI, ensuring benefits, while mitigating risks. A comprehensive AI Act is needed to guide ethical and responsible deployment.
- Benchmark globally and regionally:
 - Benchmarking against other Parliaments with successful AI integration is essential.
 - Learn from countries like Canada, Germany, and Kenya that have structured AI strategies and legislation.

• **Governance and Oversight**

- Strengthen institutional frameworks:
 - Ensure that AI use aligns with constitutional principles, democratic values, and parliamentary oversight.
- Monitor national policy progress:
 - Track the implementation of the National AI Policy Framework and the outcomes of the Presidential Commission on the Fourth Industrial Revolution.

• **Collaboration**

- Engage with SADC and AU initiatives:
 - Align with the AU's Continental AI Strategy and SADC's digital transformation goals.
 - Engage with African and global Parliaments that have enforceable AI policies.
- Participate in global forums:
 - Leverage platforms like the IPU to share best practices and harmonise AI governance.
 - Foster partnerships with innovators, researchers, and academic institutions.

• **Responsible Integration**

- Ensure transparency, ethical standards, and public trust in AI use within parliamentary operations.
- Maintain human oversight in AI-assisted decision-making.

- **Capacity Building**
 - Upskill MPs and staff:
 - Provide training on AI literacy, ethical use, and technical understanding to ensure informed decision-making.
 - Equip representatives with technological skills to match evolving public expectations.
 - Establish innovation units:
 - Create dedicated teams within Parliament to pilot and manage AI tools.
- **Policy Monitoring**
 - Track progress on South Africa's National AI Policy Framework and SADC's Digital Transformation Strategy.
- **Public Engagement and Trust**
 - Promote AI literacy:
 - Educate the public in local languages about AI's role in governance and its implications.
 - Promote AI literacy in local languages and among marginalised groups.
 - Use AI for citizen engagement:
 - Use AI tools to enhance citizen engagement and communication.
 - Deploy chatbots, plain-language summaries, and multimedia content to improve accessibility and participation.
- **Democratic and Ethical Safeguards**
 - Regulate AI to prevent misuse (e.g., disinformation, bias, surveillance).
 - Balance innovation with the protection of democratic values and human rights.
 - Ensure transparency and accountability:
 - AI systems used in Parliament must be explainable and auditable.
 - Guard against misuse:
 - Address risks such as bias, surveillance, misinformation, and deepfakes that could undermine democratic processes.
- **Institutional Readiness**
 - Encourage Parliament to modernise operations using AI to remain relevant and effective.
 - Consider merging AI into core parliamentary functions for smarter governance.
 - Invest in digital infrastructure:
 - Improve connectivity, especially in rural areas, and ensure robust cybersecurity.
 - Enable data interoperability:
 - Adopt standards like Akoma Ntoso XML for legislative data to support AI integration.
- **Regional Learning**
 - Participate in inter-parliamentary forums (e.g., SADC PF, PAP, CPA) to share best practices and lessons learned.

11. ISSUES FOR CONSIDERATION ON THE USE OF COPILOT

- **Governance and Oversight**
 - **Policy Alignment:** Copilot's use should align with South Africa's AI Policy Framework (2024), which emphasizes human-centred AI, ethical governance, and privacy protection.
 - **Oversight Mechanisms:** Parliament must ensure that Copilot's outputs are subject to human review, especially in legislative drafting, research, and decision-making contexts.
- **Privacy and Data Security**
 - **Data Protection Compliance:** Copilot accesses Microsoft 365 data (emails, documents, chats). Its use must comply with the Protection of Personal Information Act (POPIA) and any future AI-specific legislation.
 - **Risk of Data Exposure:** Sensitive parliamentary data must be safeguarded against unauthorized access or unintended sharing through AI-generated outputs.
- **Transparency and Explainability**
 - **Auditability of Outputs:** Copilot's responses should be explainable and traceable, especially when used in legislative or oversight functions.
 - **Avoiding Black Box Risks:** Parliament must ensure that Copilot's decision-support features do not obscure reasoning or introduce bias.
- **Capacity Building**
 - **Training for MPs and Staff:** Users of Copilot should be trained in AI literacy, ethical use, and understanding limitations of generative AI.
 - **Support Structures:** Establish internal teams to monitor and guide Copilot's use in parliamentary workflows.
- **Public Trust and Engagement**
 - **Clear Communication:** Parliament should disclose how Copilot is used in its operations to maintain public trust.
 - **Inclusive Access:** Consider how Copilot can support multilingual communication and plain-language summaries to improve public engagement.
- **Legal and Ethical Considerations**
 - **No Formal AI Law Yet:** South Africa lacks a legally recognised definition of AI and enforceable laws specific to tools like Copilot.
 - **Need for Regulation:** Parliament should consider drafting legislation that governs the use of generative AI tools in public institutions.

12. REFERENCES

Abdulrauf, L. A., & Dube, H. (2024). *Introduction. In Data Privacy Law in Africa - Emerging perspectives*. Pretoria University Law Press: Pretoria.

Abiri, G., & Huang, Y. (2023). A Red Flag? China's Generative AI Dilemma. *Harvard Journal of Law & Technology*, 37 (Digest, Fall 2023), 1–20.

African Union. (2024). *Continental Artificial Intelligence Strategy*. <https://au.int/en/documents/20240809/continental-artificial-intelligence-strategy> (Accessed 13 August 2025).

African Union. (2024). *African Ministers Adopt Landmark Continental Artificial Intelligence Strategy, African Digital Compact to drive Africa's Development and Inclusive Growth*. <https://au.int/en/pressreleases/20240617/african-ministers-adopt-landmark-continental-artificial-intelligence-strategy> (Accessed 13 August 2025).

AgID. (2023) Piano triennale per l'informatica nella pubblica amministrazione 2023–2025. Agenzia per l'Italia Digitale. Available at: <https://www.agid.gov.it> (Accessed 13 August 2025).

Ally, M., & Walk, N. (2020). *Sustainable Development and Education in the Fourth Industrial Revolution (4IR)*. Commonwealth of Learning. Available at: <https://oasis.col.org/server/api/core/bitstreams/3ab6e4e1-d303-403f-a2bf-db8929f777bd/content> (Accessed 03 August 2025).

Almeida, J. (2022). *AI Policy Development in Angola: Challenges and Opportunities*. Luanda: Angola Digital Institute.

Attard-Frost, B., Brandusescu, A., & Lyons, K. (2024). The governance of artificial intelligence in Canada: Findings and opportunities from a review of 84 AI governance initiatives. *Government Information Quarterly* 41, 101929.

Ayeni, T.B., Awah, O.M., Aina, A.O., & Ola, E.O. (2024). Examining the Prospects and Challenges of Artificial Intelligence in African Democracy. *Journal of Engineering Technology and Innovation (Special Issue for IEC 2024)*. Available at: <https://www.jetipublications.com/media/media/Template-EKSUIEC24054-ExaminingtheProspectsandChallengesofArtificialIntel79qUQPj.pdf> (Accessed 15 August 2025).

Azaroual, F. (2024). *Artificial Intelligence in Africa: Challenges and Opportunities*. Policy Briefs on Economic Trends and Policies, 2417. Policy Center for the New South.

Available at:

https://www.policycenter.ma/sites/default/files/2024-09/PB_23_24%20%28Azaroual%29%20%28EN%29.pdf (Accessed 15 August 2025).

Beigon, E. (2025). *MP Kitany warns of AI risks in Kenya, calls for national regulatory framework*. Available at: <https://www.kbc.co.ke/mp-kitany-warns-of-ai-ri>. (Accessed 27 August 2025).

Bendett, S. (2024). *The Role of AI in Russia's Confrontation with the West*. <https://www.cnas.org/publications/reports/the-role-of-ai-in-russias-confrontation-with-the-west>

Bertelsmann Foundation (2024) *SGI 2024 – Country report: Italy. Sustainable Governance Indicators*. Available at: <https://www.sgi-network.org/docs/2024/country/SGI2024Italy.pdf> (Accessed 13 August 2025).

Bhatnagar, A., & Gajjar, D. (2024). *Policy implications of artificial intelligence (AI)*. <https://post.parliament.uk/research-briefings/post-pn-0708/>

Blom, F., van Dongen, M., & van Beerschoten, M. (2018). *Artificial Intelligence in Nederland: Zelf Aan Het Stuur. NedWerk*. Available at: <https://denkwerk.online/media/1029/artificialintelligenceinnederlandjuli2018.pdf> (Accessed 9 July 2025).

Bonomi Savignon, A., Zecchinelli, R., Costumato, L., & Scalabrini, F. (2023). Automation in public sector jobs and services: A framework to analyze public digital transformation's impact in a data-constrained environment. *Transforming Government: People, Process and Policy*, 18(1), 50–67. doi:10.1108/TG-04-2023-0044.

Bonomi, F., Lupo, N., & Piccirilli, G. (2025). Logical and procedural rules for parliamentary amendments, in light of the Italian experience, from Bentham to AI. *The Theory and Practice of Legislation*, 1–22. doi:10.1080/20508840.2025.2542060.

Botswana Speaks (online). <https://www.botswanaspeaks.gov.bw/about>

Burrell, J. (2016). How the machine “thinks”: Understanding opacity in machine learning algorithms. *Big Data & Society*, 3(1), 1–12. doi:10.1177/2053951715622512.

BusinessTech. (2019, June 10). *How AI is being used in South Africa*. <https://businesstech.co.za/news/enterprise/322505/how-ai-is-being-used-in-south-africa/>

Böhmer, N. (2024). *The double-edged sword of algorithmic governance*. Harvard Ash Centre for Democratic Governance and Innovation. Available at: <https://www.ash.harvard.edu/wp-content/uploads/2024/02/niclasboehmeressay.pdf> (Accessed 13 August 2025).

Bússola Tech. (2023). *The digital evolution of the Parliament of Namibia: Challenges and triumphs*. Available at: <https://library.bussola-tech.co/namibia> (Accessed 13 August 2025).

Centre for Security and Emerging Technology. (2019). *Decree of the president of the Russian Federation on the development of Artificial Intelligence in the Russian Federation*. <https://cset.georgetown.edu/wp-content/uploads/Decree-of-the-President-of-the-Russian-Federation-on-the-Development-of-Artificial-Intelligence-in-the-Russian-Federation-.pdf>

Collins, C., Dennehy, D., Conboy, K., & Mikalef, P. (2021). Artificial Intelligence in information systems research: A systematic literature review and research agenda. *International Journal of Information Management*, 60, 10283.

Connally, C. (2022). Protecting parliamentary procedure: Bridging the gap in institutional memory with artificial intelligence. *Australian Parliament Review*, 40(1), 135–152.

Craig, L., Laskowski, N., & Tucci, L. (2024). *What is AI (Artificial Intelligence)?* Definition, Types, Examples & Use Cases.

Cvejić, A., Grujić, K. G., Cvejić, A., Marković, M., & Gostojić, S. (2021). Automatic transformation of plain-text legislation into machine-readable format. *Proceedings of the 11th International Conference on Information Society and Technology*, 50–55.

Daly, P. (2023). Mapping Artificial Intelligence Use in the Government of Canada. *Revue Gouvernance/Governance Review*, 20(1), 74–95. <https://doi.org/10.7202/1106045ar>

Data Guidance. (2025). *China: NPC Representatives Propose Motion for AI Law*. Available at: <https://www.dataguidance.com/news/china-npc-representatives-propose-motion-ai-law> (Accessed 29 July 2025).

Datta, P. M., Fanella, L., Del Ferraro, M., & Menconi, L. (2025). Italy's digital renaissance: Lessons from the Italian Parliament and Italian Patent Office. *Journal of Information Technology Teaching Cases*, 15(2), 77–84. doi:10.1177/20438869221098765.

Dennehy, D., Conboy, K., & Mikalef, P. (2021). Artificial intelligence in information systems research: A systematic literature review and research agenda. *International Journal of Information Management*, 60, 102383. <https://doi.org/10.1016/j.ijinfomgt.2021.102383>

De Vrieze, F. (2025). *Democratic Innovation through AI in Parliaments*. *The UK Political Studies Association Specialist Group on Parliaments*. Available at: <https://psaparliaments.org/2025/01/16/democratic-innovation-through-ai-in-parliaments/> (Accessed 22 July 2025).

Department of Communications and Technologies. (2024). *South Africa National Artificial Intelligence Policy Framework*. *Department of Communications and Technologies*. Available at: <https://fwblaw.co.za/wp-content/uploads/2024/10/South-Africa-National-AI-Policy-Framework-1.pdf> (Accessed 9 July 2025).

Di Giulio, M., & Vecchi, G. (2023). How “institutionalization” can work: Structuring governance for digital transformation in Italy. *Review of Policy Research*, 40(3), 406–432.

Digital Economy Navigator. (2025). *Angola*. <https://den.dco.org/country-profile/angola#/account-tabs-tab-0>

DLA Piper. (2024). *AI regulation in Europe: Italy's new draft AI law introduces local peculiarities compared to the EU AI Act*. DLA Piper. Available at: <https://www.dlapiper.com/en/insights/publications/2024/04/ai-regulation-in-europe-italys-new-draft-ai-law-introduces-local-peculiarities-compared-to-the-eu> (Accessed 13 August 2025).

European Commission. (2021). *Ethics guidelines for trustworthy AI*. Publications Office of the European Union. Available at: <https://eur-lex.europa.eu/eli/reg/2016/679/oj/eng> (Accessed 13 August 2025).



European Commission. (2024). *Artificial Intelligence Act*. Available at: <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai> (Accessed 13 August 2025).

European Parliament. (2024). *Artificial Intelligence Act*. Strasbourg: European Parliament.

European Parliament. (2022). *Parliamentary cooperation on digital transformation*. European Parliamentary Research Service (EPRS).

Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699475/EPRS_STU\(2022\)699475_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699475/EPRS_STU(2022)699475_EN.pdf) (Accessed 13 August 2025).

European Parliament and Council. (2016). *Regulation (EU) 2016/679 (General Data Protection Regulation)*. Official Journal of the European Union. Available at: <https://eur-lex.europa.eu> (Accessed 13 August 2025).

European Parliament. (2020). *Artificial intelligence: threats and opportunities*. *Artificial intelligence: threats and opportunities*. Available at:

https://www.europarl.europa.eu/pdfs/news/expert/2020/9/story/20200918STO87404/20200918STO87404_en.pdf. (Accessed 13 August 2025).

Feijóo, C., Kwon, Y., Bauer, J. M., Bohlin, E., Howell, B., Jain, R., & Xia, J. (2020). Harnessing Artificial Intelligence (AI) to Increase Wellbeing for all: The Case for a New Technology Diplomacy. *Telecommunications Policy*, 44(6), 101988.

Fernandes, P. (2022). Ethical Guidelines for AI in Angolan Governance. *Journal of African Governance*, 15(2), 45-60.

Figueira, H. M. A., Garrote, M. G., & Zanatta, R. A. F. (2024). Regulating Artificial Intelligence in Brazil: The Contributions of Critical Social Theory to Rethink Principles. *Special Issue on Data, Law and Decolonization*, 73–83.

<https://doi.org/10.71265/czjtr98>

Fitsilis, F. (2021). Artificial Intelligence (AI) in parliaments – preliminary analysis of the Eduskunta experiment. *The Journal of Legislative Studies*, 27(4), 621–633.

Fitsilis, F., von Lucke, J., De Vrieze, F., Mikros, G., Palmirani, M., Read, A., Schefbeck, G., Pastor y Camarasa, A., Gagnon, S., Alberto de Oliveira Lima, J., & Nielfi, A. (2024). *Guidelines for AI in Parliaments*. Westminster Foundation for Democracy, pp. 1–49.

Fitsilis, F., Von Lucke, J., & De Vrieze, F. (2024). *Guidelines for AI in Parliaments*. Westminster Foundation for Democracy. Available at: <https://www.wfd.org/sites/default/files/2024-07/wfd-ai-guidelines-for-parliaments-2024-english.pdf> (Accessed 9 July 2025).

Frąckiewicz, M. (2025). *Artificial Intelligence in Iran: Recent Developments and Outlook*. TS2 SPACE. Available at: <https://ts2.tech/en/artificial-intelligence-in-iran-recent-developments-and-outlook/#googlevignette>. (Accessed 27 August 2025).

Garante Privacy. (2024). *Linee guida sull'uso dell'intelligenza artificiale nel settore pubblico*. *Garante per la protezione dei dati personali*. Available at: <https://www.garanteprivacy.it> (Accessed 13 August 2025).



Global Information Society Watch. (2019). Artificial Intelligence: Human Rights Social Justice and Development. *Association for Progressive Communications*, a19, Swedish International Development Cooperation Agency.

Google Cloud. (2025) *What is artificial intelligence?* <https://cloud.google.com/learn/what-is-artificial-intelligence>

Grobelnik, M. Perset, K., & Russell, S. (2024). *What is AI? Can you make a clear distinction between AI and non-AI systems?* OECD. AI and GPAI. Available at: <https://oecd.ai/en/wonk/definition>. (Accessed 25 August 2025).

GSMA. (2025). AI in Ethiopia: Promising Use Cases for Development, Policy Centre for the New South. Policy Brief, Policy Center for the New South. Available at: https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma_resources/ai-in-ethiopia-promising-use-cases-for-development/. (Accessed 25 August 2025).

Haddadi, S. M. (2025), *Introductory Remarks by the Deputy Chairperson of the AU Commission High Level Policy Dialogue on the Development and Regulation of AI in Africa*. Addis Ababa.

Haroon, S., Prins, C., & Schrijvers, E. (2023). *Artificial Intelligence: Definition and Background. In Mission AI. Research for Policy*. Springer, Cham. Available at: <https://doi.org/10.1007/978-3-031-21448-62> (Accessed 9 July 2025).

Harris, M. (2024). *AI Tools for Parliaments: Caribbean Webinar Series. San Jose State University*. Available at: <https://parlamericas.org/uploads/documents/Presentation-AIToolsParliamentsCaribbean-POPVOX-MarciHarris-en.pdf> (Accessed 25 August 2025).

High Level Group on Intelligence (2019). *A Definition of AI: Main Capabilities and Scientific Disciplines. European Commission*. Available at: <https://ec.europa.eu/newsroom/dae/document.cfm?docid=56341> (Accessed 9 July 2025).

HSF Kramer. (2025). *AI Tracker – Italy: Tracking where law, regulation and policy meets machine learning*, Herbert Smith Freehills Kramer. Available at: <https://www.hsfkramer.com/insights/reports/ai-tracker/italy> (Accessed 13 August 2025).

Ibegbulam C. M., Olowonubi, J. A., Fatoude, S. A., & Oyegunwa, O. A. (2023). Artificial intelligence in the era of 4IR: Drivers, challenges and opportunities. *Engineering Science & Technology Journal*, 4, 473-488. doi:10.51594/estj.v4i6.668.

IBM Data and AI Team (n. d.). *Understanding the different types of artificial intelligence. IBM*. Available at: <https://www.ibm.com/think/topics/artificial-intelligence-types>. (Accessed 25 August 2025).

Inter-Parliamentary Union. (2024). *Guidelines for AI in Parliaments*. IPU. Available at: <https://www.ipu.org/resources/publications/reference/2024-12/guidelines-ai-in-parliaments>. (Accessed 22 July 2025).



Inter-Parliamentary Union. (2025). *Parliamentary Actions on AI Policy*. Inter-Parliamentary Union. Available at: <https://www.ipu.org/impact/democracy-and-strong-parliaments/artificial-intelligence/parliamentary-actions-ai-policy>. (Accessed 29 July 2025).

Inter-Parliamentary Union. (2022a). *Global Parliamentary Report: Public engagement in the work of parliament*. Inter-Parliamentary Union.

Inter-Parliamentary Union (2022b). *How AI helps the Italian Senate manage amendments', IPU Innovation Tracker*. Available at: <https://www.ipu.org/innovation-tracker/story/how-ai-helps-italian-senate-manage-amendments> (Accessed 13 August 2025).

Inter-Parliamentary Union. (2024a). *Guidelines for AI in Parliaments*. Geneva: IPU.

Inter-Parliamentary Union. (2024b). *Parliamentary act metadata extraction and summary generator (Use Case ID: 043)*. IPU. Available at: <https://www.ipu.org/file/20635/download> (Accessed 13 August 2025).

Inter-Parliamentary Union. (2024c). *World e-Parliament report 2024*. Inter-Parliamentary Union.

Inter-Parliamentary Union. (2025). *The role of AI in parliaments*. Available at <https://www.ipu.org/ai-guidelines/role-ai-in-parliaments>. (Accessed 15 August 2025).

Inter-Parliamentary Union. (2020). *Artificial Intelligence: Innovation in Parliaments*. Inter-Parliamentary Union.

Ivanov, D. (2023). *Artificial Intelligence and Legislative Processes in Russia*. Russian Institute of Technology.

Jaldi, A. (2023). *Artificial Intelligence Revolution in Africa: Economic Opportunities and Legal Challenges*. Policy Paper. Policy Center for the New South.

Jones, J., & Brown, M. (2024). *Global AI Governance Law and Policy: UK*. <https://iapp.org/resources/article/global-ai-governance-jurisdiction-overviews/>

Kaaniru, J. (2025). *National AI strategies for AI governance: Highlights from Namibia's recently launched AI strategy*. CIPIT Blog. Available at: <https://cipit.strathmore.edu/national-ai-strategies-for-ai-governance-namibia> (Accessed 13 August 2025).

Kasza, J. (2019). Fourth Industrial Revolution (4IR): Digital Disruption of Cyber-Physical Systems. *World Scientific News*, 134(2).

Kennedy, S. (2020). *China's Uneven High-Tech Drive*. Centre for Strategic and International Studies (CSIS).

Kovalev, A. (2023). Data Privacy and AI Ethics in Russia. *Cybersecurity Review*, 8(4), 112-125.

Licht, K. (2025). Resolving value conflicts in public AI governance: A procedural justice framework. *Technology Management and Economics. Government Information Quarterly*, 42(2).

<https://doi.org/10.1016/j.giq.2025.102033>

Limaj, B. (2023, July 30). *The Role of AI in the Fourth Industrial Revolution (4IR)*. Available at: <https://medium.com/@besniklimaj/the-role-of-ai-in-the-fourth-industrial-revolution-4ir-2b115145804b> (Accessed 21 July 2025).

Lister, S., & Read, A. (2025). *Empowering Parliaments to Shape our Digital Future. United Nations Development Programme*. Available at: <https://www.undp.org/blog/empowering-parliaments-shape-our-digital-future> (Accessed 21 July 2025).

Lopes, R. (2021). Enhancing Transparency in Angola through AI. *African Governance Review*, 10(3), 78-89.

Lotshwao, K. (2025). Intelligence as an instrument of coercion: the case of the Directorate of Intelligence and Security (DIS) in Botswana. *Journal of Policing, Intelligence and Counter Terrorism*, 20(2), 227-242, doi: 10.1080/18335330.2025.2471540.

Luong, N., & Fedasiuk, R. (2022). *3 State Plans, Research, and Funding. Chinese Power and Artificial Intelligence: Perspectives and Challenges*. Routledge.

Available at: <https://www.taylorfrancis.com/chapters/edit/10.4324/9781003212980-2/state-plans-research-funding-ngor-luong-ryan-fedasiuk>. (Accessed 21 July 2025).

Lyndyuk, A. Havrylyuk, I. Tomashevskii, Y, Khirivskyi, R., & Kohut, M. (2024). The impact of artificial intelligence on marketing communications: New business opportunities and challenges. *Economics of Development*, 23(4). Available at: <https://repository.hneu.edu.ua/handle/123456789/35756>. (Accessed 28 July 2025).

Maatsch, A., & Miklin, E. (2021). Representative democracy in danger? The impact of populist parties in government on the powers and practices of national Parliaments. *Parliamentary Affairs*, 74(4), 761–769.

Mackie, E. (2020). *Future Ready Queensland: The Role of the State: A Philosophical Position on Public Policy for the Fourth Industrial Revolution*. Doctoral Dissertation, Southern Cross University.

Makriadis, S. (2017). The Forthcoming Artificial Intelligence Revolution: Its Impact on Society and Firms. *Futures*, 90, pp. 46-60.

Makulilo, A. B. (2024). *Data Privacy in Africa: Taking Stock of its Development After Two Decades. In Data Privacy Law in Africa - Emerging perspectives*. Pretoria University Law Press.

Makulilo, A. B., Ezekiel, R. B., Mwamlangala, D., & Msumi, M. (2024). *Tracking Covid-19: What are the Implications for Data Privacy in Africa? In Data Privacy Law in Africa - Emerging perspectives*. Pretoria University Law Press.



Maloba, P. (2024). *Tayebwa Renews Call for Law on Artificial Intelligence*. Monitor. Available at: <https://www.monitor.co.ug/uganda/news/national/tayebwa-renews-call-for-law-on-artificial-intelligence-4823444> (Accessed 29 July 2025).

Markotkin, N., & Chernenko, E. (2020). *Developing Artificial Intelligence in Russia: Objectives and Reality*. <https://carnegieendowment.org/posts/2020/08/developing-artificial-intelligence-in-russia-objectives-and-reality?lang=en>

Marr, B. (2023). *The 15 biggest risks of artificial intelligence*. Forbes. <https://www.forbes.com/>

Marwala, T. (2024). *AI is a double-edged sword that requires proper governance handling, according to Professor Marwala*. Department of Public Service and Administration. Available at: <https://www.dpsa.gov.za/thepublicservant/2024/10/02/ai-is-a-double-edged-sword-that-requires-proper-governance-handling-according-to-professor-marwala/>. (Accessed 23 August 2025).

Maryville University. (2025). *History of AI: Timeline and the Future*. Available at: <https://online.maryville.edu/blog/history-of-ai/> (Accessed 15 August 2025).

Maslej, N., Fattorini, L., Perrault, R., Parli, V., Reuel, A., Brynjolfsson, E., Etchemendy, J., Ligett, K., Lyons, T., Manyika, J., Niebles, J. C., Shoham, Y., Wald, R., & Clark, J. (2024). *The AI Index 2024 Annual Report*. AI Index Steering Committee. Institute for Human-Centred AI. Available at: <https://hai.stanford.edu/assets/files/haiai-index-report-2024-smaller2.pdf> Stanford University. (Accessed 22 July 2025).

Mathieu, T. (n.d.). *Governing Artificial Intelligence: Opportunities in the Canadian Public and Private Sectors*. Master of Public Policy. Capstone Project. Unpublished Dissertation, University of Calgary.

McGee, R. W. (2025). *Should Canada Become a State? A Study in Artificial Intelligence Using DeepSeek*. Fayetteville State University. Working Paper. February 6, 2025

Mendes, T., 2022. Challenges of AI Adoption in Angola. *Innovation and Development Journal*, 7(1), 33-49.

Microsoft. (2025, August 08). *Microsoft 365 Copilot overview*. <https://learn.microsoft.com/en-us/copilot/microsoft-365/microsoft-365-copilot-overview>

Ministry of Science, Technology and Innovation. (2021). *Summary of the Brazilian Artificial Intelligence Strategy (EBIA)*. https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ebia-summary_brazilian_4979_2021.pdf/@@download/file

Morapeli, S., & Khemisi, M. (2022). The influence of artificial intelligence on the strategic communication industry. *Journal for Communication Studies in Africa*, 43(1). Available at: <https://scielo.org.za/pdf/jcsa/v43n1/05.pdf> (Accessed 15 August 2025).



Munung, N.S., Staunton, C., Mazibuko, O., Wall, P.J., & Wonkam, A. (2024). *Data protection legislation in Africa and pathways for enhancing compliance in big data health research*. Health Research Policy System. Available at: <https://www.ipu.org/ai-guidelines/generic-risks-and-biases>. (Accessed 27 August 2025).

National Commission on Research Science and Technology. (2022). *"4IR as an Enabler of Green and Inclusive Industrialisation" Final Report: Task Force on the Fourth Industrial Revolution*. Available at: <https://op.gov.na/documents/1697384/1871751/4IRTF-Final-Report.pdf/9844bc6f-8454-b792-a5e8-2e7d5faa44fa>. (Accessed 27 August 2025).

NBC News Namibia. (2025). *Speaker urges SADC collaboration on AI governance*. NBC News. Available at: <https://nbcnews.na/node/111247> (Accessed 13 August 2025).

Nemko Digital. (n.d). *Uganda AI Regulation: Digital Policy and Legal Framework*. Nemko Digital. Available at: <https://digital.nemko.com/regulations/uganda-ai-regulation> (Accessed 29 July 2025).

New Era Live. (2025). *Parliament courts AI*. *New Era Live*, 7. Available at: <https://neweralive.na/parliament-courts-ai> (Accessed 13 August 2025).

News Desk. (2025). *Namibia moves to regulate AI with draft laws and national strategy*. Trends in Africa. Available at: <https://trendsnafrica.com/namibia-moves-to-regulate-ai-with-draft-laws-and-national-strategy> (Accessed 13 August 2025).

Niestadt, M. (2025). *EU and UK approaches AI: Latest developments*. <https://epthinktank.eu/2025/03/12/eu-and-uk-approaches-to-ai-latest-developments/>

Nilsson, N. (2009). *The Quest for Artificial Intelligence*. Cambridge University Press.

Ntaba, Z. (2024). *The application of artificial Intelligence in legislative business (including legislative drafting, Petitions, research, committee business): The Africa Colloquium of Legal Counsel to Parliaments*. *Africa Colloquium*. Available at: <https://www.africacolloquium.org/wp-content/uploads/2025/01/Africa-Legislative-Counsel-Colloquium-Presentation-Ntaba.pdf> (Accessed 27 August 2025).

OASIS LegalDocumentML. (2018). *Akoma Ntoso Version 1.0 Part 1: XML Vocabulary (OASIS Standard)*. Available at: <http://docs.oasis-open.org/legaldocml/akn-core/v1.0/akn-core-v1.0-part1-vocabulary.html> (Accessed 13 August 2025).

OECD. (2019). *OECD Principles on Artificial Intelligence*. OECD Publishing. doi:10.1787/eedfee77-en.

OECD. (2022). *Recommendation of the Council on Artificial Intelligence*. OECD Publishing. doi:10.1787/eedfee77-en.

Onyango, W. (2024). *How people could shape the future of AI in Kenya: Using public participation to develop AI governance and literacy*. Available at: [adalovelaceinstitute.org/blog/people-shape-future-of-ai/](https://www.adalovelaceinstitute.org/blog/people-shape-future-of-ai/) (Accessed 27 August 2025).



Oosthuizen, R. M. (2022). *The Fourth Industrial Revolution – Smart Technology, Artificial Intelligence, Robotics and Algorithms: Industrial Psychologists in Future Workplaces. Frontiers in Intelligence*. Available at: <https://www.researchgate.net/publication/361809477TheFourthIndustrialRevolution-SmartTechnologyArtificialIntelligenceRoboticsandAlgorithmsIndustrialPsychologistsinFutureWorkplaces> (Accessed 2 July 2025).

Parliament of Botswana (n.d.). *About*. <https://www.parliament.gov.bw/index.php?option=comcontent&view=article&id=246&Itemid=673>

Parliament of the Republic of South Africa. (2025). *Media statement: SADC parliamentary forum concludes 57th assembly with important resolutions on Parliaments' use of artificial intelligence*. <https://www.parliament.gov.za/index.php/press-releases/media-statement-sadc-parliamentary-forum-concludes-57th-assembly-important-resolutions-parliaments-use-artificial-intelligence>

Parliamentary Office of Science and Technology. (POST). (2023). *POSTbrief 57: Artificial Intelligence – An explainer*. UK Parliament. Retrieved from <https://doi.org/10.58248/PB57>

Petrov, S. (2023). *AI-Driven Governance in Russia: Opportunities and Risks*. Russian Academy of Sciences.

Plantinga, P., Shilongo, K., Mudongo, O., Umubyeyi, A., Gastrow, M., & Razzano, G. (2024). Responsible artificial intelligence in Africa: towards policy learning. *Data & Policy*, 6, e72. doi:10.1017/dap.2024.60.

Polyakova, A. (2018). *Weapons of the weak: Russia and AI-driven asymmetric warfare*. <https://www.brookings.edu/articles/weapons-of-the-weak-russia-and-ai-driven-asymmetric-warfare/>

Quteishat, E. M. A., Qtaishat, A., & Quteishat, A. M. A. (2024). Exploring the Role of AI in Modern Legal Practice: Opportunities, Challenges, and Ethical Implications. *J. Electrical Systems*. Available at: <https://pdfs.semanticscholar.org/7828/77a8679e1811ad00094d934faee36c23ea1a.pdf> (Accessed 28 July 2025).

Read, A. (2023). *A Democratic Approach to Global Artificial Intelligence (AI) Safety: Policy Brief*. Westminster Foundation for Democracy. Available at: <https://www.wfd.org/sites/default/files/2023-11/A%20democratic%20approach%20to%20global%20artificial%20intelligence%20%28AI%29%20safety%20v20.pdf> (Accessed 22 July 2025).

Reporter. (2025). *Namibia finalising AI, data security laws*. The Brief. Available at: <https://thebrief.com.na/2025/06/namibia-finalising-ai-data-security-laws> (Accessed 13 August 2025).

Research ICT Africa. (2025). *The future of AI in Africa must be just*. Africa Just AI Conference Proceedings.



Reuters. (2025). *Will the EU delay enforcing its AI Act?* The Hindu. Available at: <https://www.reuters.com/business/media-telecom/will-eu-delay-enforcing-its-ai-act-2025-07-03/> (Accessed 13 August 2025).

SADC Parliamentary Forum. (2023). *Annual report 2022*. SADC.

Salami, E. (2024). *The Ascent of Artificial Intelligence in Africa: Bridging Innovation and Data Protection*. In *Data Privacy Law in Africa - Emerging perspectives*. Pretoria University Law Press.

Sangwan, A., & Bansal, R. (2024). A comprehensive review of artificial intelligence. *International Journal for Multidisciplinary Research*, 6(5), 1–6.

Sanni O., Adeleke, O., Ukoba, K., Ren, J., & Jen, T. C. (2024). Prediction of Inhibition Performance of Agro-Waste Extract in Simulated Acidizing Media via Machine Learning. *Fuel*, 356, 129527.

Sanni, O., Adeleke, O., Ukoba, K., Ren, J., & Jen, T. C., 2022. Application of Machine Learning Models to Investigate the Performance of Stainless-Steel Type 904 with Agricultural Waste. *Journal of Materials Research and Technology*, 20, 4487-4499.

Sarker, I. H. (2021). *Machine Learning: Algorithms, Real-World Applications and Research Directions*. Springer Nature. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC7983091/> (Accessed 25 August 2025).

Schwab, K. (2016). *The Fourth Industrial Revolution*. Crown Business.

Senato della Repubblica. (2016). *Il progetto Linked Open Data del Senato della Repubblica – dati. senato. it*. Available at: <https://dati.senato.it> (Accessed 13 August 2025).

Sheehan, M. (2023a). *China's AI Regulations and How They Get Made*. Carnegie Endowment for International Peace. Available at: <https://carnegie-production-assets.s3.amazonaws.com/static/files/202307-SheehanChinese%20AI%20gov-1.pdf> (Accessed 29 July 2025).

Sheehan, M. (2023b). *What the U. S. Can Learn from China about Regulating AI*. Foreign Policy. Available at: <https://foreignpolicy.com/2023/09/12/ai-artificial-intelligence-regulation-law-china-us-schumer-congress/> (Accessed 29 July 2025).

Shilongo, K., Gaffley, M., Plantinga, P., Adams, R., & Olorunju, N. (2024). *Landscape Study of AI Policies and Use in Southern Africa*. Research Report. UNESCO

Shonhe, L., & Kolobe, M. (2023). A Glimpse into Botswana's AI Readiness Landscape. *JeDEM Issue*, 15(2), 37-67, 2023.

Silva, F. S. R., Rodrigues, G. R., Roman, J., Brandao, L. C. C., Santarem, P. R. S., & Viera, V. B. R. (2022). *Brazilian Legal Framework for Artificial Intelligence: Contributions to the Senate Jurist's Committee*. Institute for Research on Internet and Society

Smith, L. (2022). AI and Public Engagement in Angola. *African Journal of Digital Governance*, 4(1), pp. 15-29.

Sokolov, M. (2023). Regulatory Frameworks for AI in Russia's Parliament. *Moscow Policy Review*, 12(2), 99-115.

Southern African News Features. (2025). *Southern Africa: Harnessing AI to Strengthen SADC Parliamentary Effectiveness*. All Africa. Available at: <https://allafrica.com/stories/202506040067.html> (Accessed 29 July 2025).

Stryker, C (2025). *What is artificial intelligence (AI)?* IBM. Available at: <https://www.ibm.com/think/topics/artificial-intelligence>. (Accessed 25 August 2025).

Stuurman, K., & Lachaud, E. (2022). Regulating AI: A label to complete the proposed Act on Artificial Intelligence. *Computer Law and Security Review*, 35(2), 2212–4739.

Tembine, H., Tapo, A. T., Danioko, S., A., & Traor'e, A. (2024). *Machine Intelligence in Africa: a survey*. (Affiliation not available).

TimesLIVE. (2024, August, 24). *Parliament considering AI to assist with interpretation challenges*. <https://www.timeslive.co.za/politics/2024-08-23-parliament-considering-ai-to-assist-with-interpretation-challenges/>

Tobin, M. (2023). *Will China Overtake the U. S. on AI? Probably Not. Here's Why*. Washington Post. Available at: <https://www.washingtonpost.com/world/2023/07/03/china-us-ai-technology-chatgpt/> (Accessed 29 July 2025).

UK Parliament. (2023). *Artificial intelligence: Development, risks and regulation*. House of Lords Library. <https://lordslibrary.parliament.uk/artificial-intelligence-development-risks-and-regulation/>

UK Parliament. (2025). *Artificial intelligence guidance for Members*. <https://www.parliament.uk/globalassets/mps-lords--offices/offices/parliamentary-digital-service/ai-guidance-for-members.pdf>

Ukoba, K., & Jen, T. C. (2022). *Biochar and Application of Machine Learning: A Review*. Biochar-Productive Technologies, Properties and Application.

Ukoba, K., Kunene, T. J., Harmse, P., Lukong, V. T., & Chien Jen, T., (2023). The Role of Renewable Energy Sources and Industry 4. 0 Focus for Africa: A Review. *Applied Sciences*, 13(2), 1074.

UNESCO. (2021a). *AI and the rule of law: Capacity-building for judicial systems*. UNESCO Publishing.

UNESCO. (2021b). *Recommendation on the Ethics of Artificial Intelligence*. UNESCO Publishing. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000380455> (Accessed 13 August 2025).

UNESCO. (2022). *Windhoek Statement on Artificial Intelligence in Southern Africa (PAX-2022/WS/1)*. UNESCO Office in Windhoek and Government of Namibia. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000384567> (Accessed 13 August 2025).

United Nations Development Programme. (2019). *Is Artificial Intelligence (AI) a solution for Angola?* <https://www.undp.org/pt/angola/blog/artificial-intelligence-ai-solution-angola>

United Nations E-Government Survey. (2022). *The future of digital government*. UN DESA.

UNESCO. (2025). *Artificial Intelligence*. Available at: <https://www.unesco.org/en/artificial-intelligence>. (Accessed 25 August 2025).

United Nations Trade and Development. (n. d.). *Science, Technology and Innovation Policy Review: Angola*. <https://unctad.org/publication/science-technology-and-innovation-policy-review-angola>

Unknown. (n.d.). *Development of an artificial intelligence framework to combat tax noncompliance in Botswana*. (This preprint research paper has not been peer reviewed. Electronic copy available at: <https://ssrn.com/abstract=4969085>).

Von Lucke, J., Fitsilis, F., & Gagnon, S. (2024). Using artificial intelligence in Parliament: Initial results from the Canadian House of Commons. *EGOV2024 – eGovernment, eDemocracy, and eParticipation*. Ghent & Leuven, Belgium. <https://ceur-ws.org/Vol-3737/paper7.pdf>

Wang, Q. Walsh, S. Si, M., & Kephart, J. (2024). *Theory of Mind in Human-AI Interaction*. Carnegie Mellon University. <https://www.researchgate.net/publication/380525596TheoryofMindinHuman-AIInteraction>. (Accessed 25 August 2025).

Whitecase. (2024). *AI Watch: Global regulatory tracker - South Africa*. <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-south-africa>

Whitehead, S. (2025). *Uganda Begins Drafting National AI Policy to Balance Innovation and Data Privacy*. IAfrica. Available at: <https://iafrica.com/uganda-begins-drafting-national-ai-policy-to-balance-innovation-and-data-privacy/> (Accessed 29 July 2025).

Wikipedia (online(a)). *Parliament of Botswana*. <https://en.wikipedia.org/wiki/ParliamentofBotswana>

Wikipedia (online(b)). *Parliament of Canada*. <https://en.wikipedia.org/wiki/ParliamentofCanada>

World Bank. (2022). *Global trends in AI governance: Evolving country approaches*. Available at: <https://documents1.worldbank.org/curated/en/099120224205026271/pdf/P1786161ad76ca0ae1ba3b1558ca4ff88ba.pdf> (Accessed 13 August 2025).

World Bank Group. (2024). *Inclusive Digitalization in Eastern and Southern Africa Program: Angola*. <https://www.worldbank.org/en/news/factsheet/2024/06/27/inclusive-digitalization-in-eastern-and-southern-africa-program-afe-angola>

Xinhua (2025). *Namibia launches AI readiness report*. Xinhua News Agency. Available at: <https://english.news.cn/africa/20250812/70e326bc14d140d1b3a5f92d8eec523e/c.html> (Accessed 13 August 2025).

Xu, M. David, J. M., & Kim, S. H. (2018). The Fourth Industrial Revolution: Opportunities and Challenges. *International Journal of Financial Research*, 9(2). Available at: <https://pdfs.semanticscholar.org/0eab/c2578d8ca420cceb386e3ad2a51d17b96616.pdf>. (Accessed 25 August 2025).

Xu, Y., Liu, X., Cao, X., Huang, C., Liu, E., Qian, S., & Zhang, J. (2021). Artificial Intelligence: A powerful Paradigm for Scientific Research. *The Innovation*, 2(4).

Yuan L., & Zhu, L. (2023). *Comments on China's Interim Measures on Generative AI Services*. Jingtian & Gongcheng. Available at: <https://www.linkedin.com/pulse/quick-comments-chinas-interim-measures-generative-ai-b0j3e/> (Accessed 29 July 2025).

Zhang, A. (2024). *High Wire: How China Regulates Big Tech and Governs its Economy*. Oxford: Oxford University Press.

Zhang, A. H. (2024). *The Promise and Perils of China's Regulation of Artificial Intelligence*. Columbia University Press. Available at: <https://www.law.columbia.edu/sites/default/files/2024-04/The%20Promise%20and%20Perils%20of%20Chinese%20AI%20Regulation.pdf> (Accessed 29 July 2025).

Zhang, A. H. (2022). Agility over Stability: China's Great Reversal of Regulating the Platform Economy. *Harvard Law International Journal*, 63(2), 457–514.

Zhou, C. (2023). *China Tells Big Tech Companies Not to Offer ChatGPT Services*. China Tech. Available at: <https://asia.nikkei.com/business/china-tech/china-tells-big-tech-companies-not-to-offer-chatgpt-services> (Accessed 29 July 2025).

Contributors

- Agnetha Arendse
- Jacques Verster
- Khanyisani Xulu
- Lindinxiwa Mahlasela
- Moses Mncwabe
- Nondumiso Dumakude
- Sifiso Ngesi
- Teboho Mokoena

For any comments or feedback, please email Sithabiso Buthelezi,
Chief Researcher: Parliamentary Research Unit
sibuthelezi@parliament.gov.za



PARLIAMENT
OF THE REPUBLIC OF SOUTH AFRICA