

Guidelines for AI in Parliaments

Editors

Fotios Fitsilis Jörn von Lucke Franklin De Vrieze

July 2024





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The present version of the guidelines was finalised on 29 April 2024.

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How to navigate this document

1. Introduction

page 10

2. The Guidelines

page 22

Part 2 of the document contains the guidelines. Following a summary, the detailed guidelines are organised into six sections, covering a range of critical issues:

- ethical principles
- artificial general intelligence (AGI)
- privacy
- governance
- system design
- capacity building

aiming to address three main questions:

- Why does this guideline matter?
- How can this guideline be implemented?

Brief further considerations and recommendations are also included in each guideline.



The introduction describes AI and generative AI, and outlines why we need guidelines, the challenges of using AI in a parliamentary setting, and how AI could be used in parliaments.

Each of the 40 guidelines is presented in a structured format,

Are there known examples of its implementation?

Part 3 briefly outlines a way forward in the development of

Part 4 contains a list of abbreviations, a glossary, and the

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Foreword

We are already witnessing the impact The publication of these guidelines advances of artificial intelligence (AI) within the our comprehension of AI but also lays the parliamentary workspace. In the not-sogroundwork for responsible and inclusive distant future, we might see AI systems and integration of AI into parliamentary practices. AI-based services seamlessly supporting Westminster Foundation for Democracy takes members of parliament in both parliamentary pride in championing the democratisation proceedings and their constituency duties. of AI and its integration into parliamentary Imagine reliable decision-making systems, institutions. New technologies must serve underpinned by AI services, facilitating democracy, not distort it. The publication of informed judgments. Picture intelligent the first-ever guidelines for AI in parliaments scrutiny of legislative proposals for their reaffirms our commitment to leading harmonisation with existing regulations, parliamentary innovation. Our worldwide team alongside AI-driven monitoring of political of dedicated experts will continue to partner discourse on social media platforms. with researchers and interested parliaments This is not science fiction. Even with today's in developing and governing technologies to technological capabilities, such digital foster democracy worldwide.

This is not science fiction. Even with today's technological capabilities, such digital solutions can be developed and integrated into parliamentary IT systems, significantly impacting institutional and representative functions.

This publication is the result of collaborative efforts from a working group comprising over 20 parliamentary scholars and practitioners. The guidelines it contains span ethical principles, artificial general intelligence and human autonomy, privacy and security, governance and oversight, system design and operation, and capacity building and education.

Anthony Smith

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July 2024



Editors' preface

Over time, more and more parliaments have embraced digital tools and services. The rise of AI is expected to further accelerate this trend and play a significant role in transforming legislatures from paper-driven organisations into data-driven institutions.

These guidelines aim to prepare representative institutions for the introduction and use of AI in the parliamentary workspace. This publication was drafted by an international group of parliamentary scholars and professionals over a period of 8 months, from September 2023 to April 2024, building upon earlier work in the field.

We recognise that the guidelines remain a work in progress within an ever-changing technological and institutional context. That said, the guidelines have the potential to ensure informed regulation to empower parliaments across policy formulation, public engagement, capacity building, and more. They can help ensure the responsible integration of AI, addressing transparency and ethics in political and administrative processes, thus strengthening public trust, and safeguarding the public interest. Additionally, these guidelines can help align AI tools and services with democratic principles and societal needs. They also contribute significantly to the sharing of best practices and ethical conduct, ultimately supporting knowledge growth and collaboration among the parliamentary community.

These guidelines are relevant for local, regional, national, and supranational parliaments in a multilevel governance context. They take a holistic approach, addressing ethics, privacy, security, oversight, system design, and education. They look into specific aspects of the use of AI in parliaments, including scope, examples, and factors that are critical for successful implementation. This makes them both useful for tackling contemporary issues and relevant for assessing more theoretical ones, such as the implications of artificial general intelligence (AGI) for legislatures.

Technology moves rapidly. Hence, the guidelines were designed to be technologically agnostic - in other words, they do not address any specific AI technology. However, indications of major technology trends are outlined, such as generative and hybrid AI.

We hope this publication is disseminated as widely as possible, to reach every parliament, parliamentarian, administrator, and anyone else genuinely interested in maximising the positive effects of AI in legislatures while minimising the potential risks. It is for exactly this reason that the editors and the other authors are committed to cooperating further with parliamentary and societal stakeholders to drive the further development of these guidelines. Communication of the guidelines, collaboration, and customisation

will help ensure effective implementation and adaptation in diverse institutional contexts.

We welcome proposals from those interested in working with us to translate the guidelines, develop training materials, provide support for their implementation, or share best-practices to accelerate their effective integration into the parliamentary workspace. Proof-of-concept and pilot projects, whether unilateral, bilateral, or multilateral, will allow for practical testing and refinement of the guidelines in diverse contexts and we look forward to learning from them.

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Executive summary

Background

Artificial intelligence (AI) offers a transformative opportunity for parliamentary processes. It can increasingly be used for a variety of purposes, such as debate transcription and translation, summarising documents, support in drafting legal documents, and communicating with citizens. Several forward-thinking parliaments are already experimenting with or applying AI applications and the potential benefits are substantial, spanning various aspects of parliamentary functions.

While Al's impact in legislative drafting is still being studied, it can already contribute to analysing vast volumes of legal documents, identifying patterns, and suggesting improvements. Additionally, AI algorithms can summarise lengthy reports, bills, and committee findings, making parliamentary documents more accessible to lawmakers and citizens alike.

This promotes transparency and facilitates informed decision-making. Moreover, Alpowered chatbots can engage citizens by providing real-time information about parliamentary activities, thus enabling greater public participation. Al models can also offer predictive insights by forecasting trends, potential policy impacts, and public sentiment. Subsequently, such foresight enables lawmakers to proactively address emerging issues, enhancing the effectiveness of parliamentary work. Since late 2022, we have witnessed the rapid adoption of generative pre-trained transformers (GPT), AI technology which offers unforeseen potential to enhance parliamentary functions. While several institutions responded quickly, the vast majority remain without clear strategy, unsure how AI tools can be developed, implemented, and used. These guidelines are intended to stimulate digital innovation and responsible adoption, while preventing threats that AI may pose to democracy and humanity, today and in the future.

This publication was developed over 8 months, from September 2023 until April 2024, by a technical working group of 22 expert parliamentary scholars and professionals from 16 countries. The document considers several AI technologies and their application relevant to parliaments; the challenges and barriers to their adoption; and the evolution of AI regulation.

The guidelines

The following 40 guidelines, classified into six sectors, provide general guidance for developing custom regulatory frameworks for the parliaments of the future.

For each guideline, a set of key questions are answered: Why does the guideline matter? Are there known examples? And, how can this be implemented? Each guideline concludes with suggestions on how to use them, and how stakeholders can adopt and adapt them in parliamentary AI projects.

Number of Guidelines per sector



Figure 1 shows the distribution of guidelines across sectors, depicting that the experts placed clear emphasis on the ethical framework (10 guidelines), while also keeping an eye on AGI (3 guidelines), however improbable such a prospect might be.

The guidelines emphasise ethical principles, including accountability, transparency, and fairness. They stress the importance of respecting human dignity, privacy, and cultural diversity, while also addressing biases in data and algorithms. Promoting human autonomy and decision-making is highlighted, with recognition of the potential impact of AGI. Privacy and security considerations are crucial, requiring robust measures to safeguard personal data and prevent cyberattacks.

The guidelines outline how effective governance and oversight are key to aligning AI use with democratic values and ensuring transparency. System design and operation should prioritise interoperability, transparency, reliability, and safety, alongside regulation and



monitoring of AI systems. Capacity building and education are emphasised to equip parliamentarians and staff with the necessary skills and knowledge for responsible AI use.

Collaboration with stakeholders and public education efforts are encouraged to foster understanding and acceptance of AI in parliamentary processes. Collaboration among parliaments and with parliamentary organisations is considered crucial for sharing experiences and resources to accelerate AI implementation. Part 1.

Introduction



In the context of the rapid evolution and widespread adoption of artificial intelligence (AI) tools and services – including in parliamentary processes – it is necessary to establish ethical and operational guidelines that ensure accountability, transparency, and human autonomy, while promoting sustainable development goals and protecting privacy, security, and diversity.

With this aim, a first set of guidelines (v1.0) was developed in 2023.¹ This publication builds upon the first set of guidelines to develop a comprehensive and useful framework for parliaments worldwide to use as they navigate these technologies and their application and develop their own regulatory framework.

The publication does not only consider the applications of AI in the parliamentary workspace, but takes a broader stance, outlining ways AI might impact the work of parliamentarians, parliamentary administration, and the institution of parliament itself. The document focuses on restrictions and precautionary measures. This is not to discourage parliaments. On the contrary, parliaments should be encouraged to develop a deeper understanding and embrace of the use of AI – but under certain conditions and while staying alert to the risks and opportunities of the use of AI in parliaments. AI can offer considerable advantages in forming the parliaments of the future. This consideration should be in the foreground of the much-needed public and political discussion about AI and democracy.

Al is the latest development in the digital transformation of parliaments. The effects of digital technology in legislatures² as well as in different aspects of a democratic system are well documented.³ However, when it comes to Al, scholars usually adopt a more conservative rather than a disruptive approach when studying its potential effects on institutional development. This cautiousness, however, tends to overlook the fact that Al and generative AI (Al's most prominent subgenre) are potential game changers in the parliamentary workspace, facilitating a more efficient, effective, and transparent operation.

Beyond mere support, these guidelines offer an overview of the positive potential and associated challenges posed by these emerging technologies.

What is AI and generative AI?

The field of AI is complex and ever-changing and many attempts have been made to describe it.⁴ Instead of concise definitions, this publication adopts a set of more general descriptions to frame the technologies, concepts, risks, and benefits associated with the introduction of AI in the parliamentary workspace.⁵

The term artificial intelligence refers to a bundle of different technologies, learning methods, system architectures, algorithms, and approaches that use computer capacities to replicate the capabilities of human intelligence in order to perform certain tasks independently or on command. They include: autonomous systems, machine learning, deep learning, neural networks, pattern recognition, natural language processing, real-time translations, chatbots, and robots.

The capabilities provided by AI are intended to support or automate human activities and processes. Pattern and text recognition, speech and speaker recognition, image and spatial recognition, and face and gesture recognition open up a wide range of possible applications. AI-based systems for text, sound, speech, image, space, and video generation as well as programming expand the range of applications. All this leads to new systems, applications, and processes for AI-based perception, notification, recommendation, prognosis, prevention, decision -making, and situational awareness in real time.

Generative artificial intelligence, sometimes labelled GenAI, is able to generate new content on the foundation of what it has already learned from training material. It does not rely solely on randomness, but on recognised and learned patterns to generate synthetic data. For example, large language models (LLMs) - such as ChatGPT - support the generation of text and code, while AI-based translation services convert texts into different languages. Other areas of application include the generation of presentations, programmes for IT systems, and workflow planning. Texts can also be used to generate voice and sound sequences in different pitches. The generation of images and videos is also becoming increasingly important, with many especially concerned about the dangers of the creation of lipsynchronised videos based on image material and audio recordings (deepfakes).

There are several LLMs available, both open and closed source, and to evaluate which is better fitted to a specific use-case is an important task from a methodological perspective. Some of them are large, others are small and can be installed locally. However, there are several considerations around their applicability in parliaments while ensuring infrastructure sovereignty, preventing intrusion from external actors, safeguarding data ownership, ensuring traceability, and upholding the legitimacy of the entire process.⁶

Why do we need guidelines for the use of AI in parliaments?

Guidelines provide structure, consistency, and direction. They help to share practices, increase the possibility that solutions and approaches can be reproduced in other institutions, and ensure ethical conduct, fostering the growth of knowledge and facilitating collaboration among researchers. Such guidelines exist, for instance, in the field of cybersecurity⁷ and personal data protection.⁸

Guidelines for AI in parliaments can ensure the responsible integration of AI in parliamentary work, addressing transparency and ethical concerns in institutional administrative and decision-making processes, while also promoting public trust. Moreover, they can help to ensure the alignment of AI tools and services with democratic principles and societal needs. From a legal perspective, the development of such guidelines may substantially contribute to the theory of law.⁹



The table on the following page outlines some of the most significant principles that should govern the integration of AI in the parliamentary context alongside their possible application in the parliamentary workspace. In February 2024, the Italian Chamber of Deputies released a comparable set of principles.¹⁰ As is clear from the table, AI has the potential to inflict numerous positive changes within the parliamentary ecosystem.

These principles are encapsulated within the guidelines that form part 2 of this document. Guidelines related to cybersecurity and data privacy are also included.



Introduction

Relevant principles for AI in parliament	Application in the parliamentary workspace
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 Al use	Uphold ethical standards and prevent misuse or bias in Al applications
Human oversight and explicability	Maintain human control over AI systems but also to have the capability to provide an explanation oriented to different audiences (e.g., legal operator, citizen)
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 regarding AI in parliament and AI integration in the parliamentary workspace
Legal compliance	Ensure AI implementations in parliament adhere to relevant laws and regulations

AI systems and solutions for parliament

Al has the potential to inflict numerous positive changes within the parliamentary ecosystem and is relevant to many types of parliamentary services.

In this document, the authors have chosen a typological classification that offers a comprehensive range of AI-based applications and highlights the diverse ways in which AI can enhance parliamentary processes, ensuring efficiency, transparency, and responsiveness.¹¹ The table on the following page provides examples of the ways AI can be used in parliaments.

The top parliamentary applications are grouped into clusters based on their relevance. This categorisation is based on expert suggestions and empirical data collected from three parliamentary bodies: the Hellenic Parliament, the Honourable Chamber of Deputies of the Argentine Nation, and the Parliament of Canada.¹²





Parliamentary AI-based applications

Cluster	AI applications in parliaments
Parliamentarians	 Real-time subtitling of speeches by MPs in parliament Reliable voting systems in plenary and committees Generation of content for speeches and written questions Support in information retrieval
Legislation	 Examination of legislative proposals for interactions with other regulations Recommendations on legislation based on identified gaps, problems, and other relevant laws Text drafts for further processing Better regulation and digital-ready policy implementation
Parliamentary control and parliamentary diplomacy	 Media analysis regarding parliament's activities Social media data analysis regarding parliament's activities Detection of information environment manipulation Measures to reduce bias/discrimination within AI-based proposals for elimination
Civic education and national culture	 Intelligent search functions in the front end of the parliament's website Transparency through (linked) open data Visualisation of arguments and discussions Facilitating public input to parliamentary proceedings
Parliamentary administration, parliament buildings, driving service, and police	 Virtual assistants for persons with disabilities Cybersecurity software Minute generation and translation services
Parliamentary bureau, parliamentary directorates, and elections	 Detection of AI-generated fake content intended to manipulate the democratic process Process automation Project management
Research/scientific services	 Intelligent document search Advanced knowledge management Fact-checking

This broad range of AI-based applications highlights the diverse ways in which such technology can support, streamline, and even enhance parliamentary processes.

Such systems, with different levels of maturity, are already being used in parliaments around the globe.¹³ Most of these systems employ natural language processing algorithms, while the most-used functionalities are speech to text transformation, text classification, and pattern recognition, which in turn includes voice, images, objects, and facial recognition.

The focus of such systems is twofold.¹⁴ Firstly, parliaments seem to prioritise AI systems for streamlining processes associated with legislative procedures, including deliberation, plenary sessions, and committee meetings. Secondly, emphasis is placed on digital services for citizens, including access to information by citizens and analysing feedback received from citizens using public consultation instruments.

The emerging trend is to use a multiplicity of techniques for mitigating the risks posed by only one method, and to use symbolic, sub-symbolic, and neuro-symbolic AI in an hybrid approach.¹⁵



Challenges and barriers to the use of AI in parliaments

The integration of AI poses both unprecedented opportunities and formidable challenges when it comes to parliamentary affairs.

There is an absence of specific laws and regulations for the use of AI in parliament so far. The uncertainty resulting from this regulatory vacuum may lead to a lack of trust in AI services and their providers. Additionally, the existence of potential cybersecurity vulnerabilities in AI solutions causes concerns about the security and integrity of parliamentary systems.

Furthermore, knowledge about AI is still limited, even in the engineering domain, and parliamentary actors are not sufficiently trained. This lack of knowledge not only hinders effective integration and operations, but also leaves parliamentary stakeholders vulnerable to external influences.

This document recognises AI as a transformative force and seeks to navigate the uncharted waters by providing guidelines for parliaments to harness the benefits while safeguarding against potential pitfalls.

As AI enters the realm of parliaments, there is an urgent need to create safeguards and regulations. ¹⁶ Many considerations relevant to building an effective regulatory framework need to be tackled, including:

- Data privacy and IT security, as well as data access and data ownership.
- Different hosting options for AI systems, such as the choice between on-premises installations or cloud-based services and the risks thereof.¹⁷
- The portability of services and data.
- Ensuring trustworthy providers of AI services with clear ownership structures

- Ethical concerns and worries about bias and the quality of training data.
- Transparency, explainability, and accountability – critical pillars in building public trust in parliamentary AI systems.
- Autonomy of the decision-maker, which is fundamental for the acceptance of AI systems as supporting tools to legal operators.
- Multilingual capabilities, which are paramount for inclusive and efficient AI implementation.
- Public participation, which can be used to put democratic values into practice and ensure an outside perspective at all times.

Furthermore, there is a need for standards and frameworks for the integration of AI technology in daily parliamentary business. For instance, regulations are needed on the scope of data storage and deletion, ethical oversight, and continuous monitoring to ensure that AI systems in parliaments meet the highest standards. This again leads to the necessity of quality benchmarks for such systems.

Since very few parliaments are likely to possess the expertise and resources to address the above issues, this document also makes the case for interinstitutional and interparliamentary cooperation.

Overall, these guidelines aim to strike a balance between harnessing the transformative potential of AI and safeguarding the integrity of parliamentary systems.

Evolution of AI regulation

The issue of regulation of AI in parliaments has not yet been seriously considered by parliaments. The possible spectrum of approaches to AI in parliaments ranges from full integration to its denial. Barriers and regulations could limit any strengths and opportunities that are opening up. This divergence underscores an ongoing evolutionary process, necessitating the establishment of guidelines to steer parliaments to embrace AI responsibly.

In contrast to non-binding instruments or "soft law", such as resolutions, codes of conduct, or guidelines, legally-binding instruments or "hard law", may include regulations, directives, and laws.

Two major legally binding instruments are worth mentioning: Firstly, the European Parliament adopted several relevant resolutions before ultimately adopting the AI Act in March 2024.¹⁸ The AI Act imposes a series of obligations to developers and deployers embracing a risk-based approach, including conducting a fundamental rights impact assessment (FRIA ¹⁹) for high-risk applications. The act also designates some applications of AI systems in the parliamentary domain as high-risk, and outlines particular obligations with regard to these applications.

Secondly, the Council of Europe has finalised the Framework Convention on AI, Human Rights, Democracy, and the Rule of Law. It will soon be open for adoption and ratification.²⁰ The convention is the first legally binding instrument on AI, human rights, and the rule of law. However, it does not contain additional obligations that would apply to parliaments with regard to the use of AI technologies. The way towards this convention was paved in 2020, when the Parliamentary Assembly of the Council of Europe (PACE) adopted resolutions and recommendations exploring the implications of AI on human rights, democracy, and the rule of law.²¹

Meanwhile, in March 2024, the United Nations General Assembly took a significant step by adopting a resolution aimed at steering the use of AI toward global good. The goal of the resolution is to foster safe, secure, and trustworthy AI systems, thereby accelerating progress toward the full realisation of the 2030 Agenda for Sustainable Development.²² This resolution, as well as the Universal Declaration of Human Rights, are not legally binding, though they may be used by regional and national regulatory documents as a "moral compass" to achieve the overarching goals.

While there is considerable effort to regulate AI, as of early 2024, there are no established guidelines or principles governing the use of AI within parliaments, democracy's supreme institutions.²³ A survey in late 2022 – before the introduction of free basic services through OpenAI's ChatGPT - revealed the existence of 39 active AI solutions across 10 parliamentary chambers.²⁴ The arrival of ChatGPT sparked a surge of interest in generative AI solutions with direct or indirect implications for legislation.²⁵ Notably, in 2023, the US Congress procured 40 ChatGPT Plus licences to explore generative AI within its ranks. These licences were distributed among congressional offices, enabling lawmakers and staff to experiment with this transformative technology internally.²⁶ In April 2024, the Committee on House Administration (CHA) of the US House of Representatives issued a set of general guardrails to be utilised for any AI tool or technology in use within the House.²⁷

In 2017, an All-Party Parliamentary Group (APPG) on AI was registered in the UK Parliament – globally, the first parliamentary effort to discuss the applications and implications of the technology. In March 2023, the UK Government released a white paper outlining its proposed pro-innovation approach to AI regulation. This framework aims to be proportionate, future-proof, and supportive of innovation. ²⁸ Subsequently, in November 2023 a Private Members' Bill on AI Regulation originated in the House of Lords. Currently at the committee stage, this bill and similar ones are currently in discussion across the globe, highlight the need to frame such powerful technology within acceptable limits.

In anticipation of the further integration of AI tools and services in the parliamentary workspace, efforts to develop guidelines and regulations have been underway. In April 2023, an ad hoc working group produced the original version of a set of guidelines addressing the introduction and use of AI in the parliamentary workspace. This present version, v2.0, builds upon the groundwork laid by its predecessor.

Methods to develop and improve the guidelines

The methodology that the technical working group followed to develop these guidelines drew from existing knowledge, literature analysis, and insights from experts in parliamentary affairs. Work commenced in September 2023 and concluded in April 2024. The iterative process of updating the guidelines was complemented by an interactive workshop.

With the participation of more than 20 experts, the process of drafting these guidelines encountered significant challenges in achieving unanimous agreement from the outset. Compromises were integral throughout the process. This publication embodies the result of this balanced effort. Ultimately, it is the responsibility of individual parliaments to define their own parameters, devise strategies, and set priorities based on these guidelines.

The synthesis of human intelligence and advanced AI capabilities, including collaborative text pads and large language models (LLMs), forms the bedrock of this research process. The experts engaged in diverse brainstorming sessions, combining traditional human brainstorming enhanced with the innovative potential of LLM-based brainstorming. Comparative analysis with AI-generated guidelines, from models like OpenAI's ChatGPT (GPT-3.5 and GPT-4), enriched the understanding and evaluation of the proposed solutions.

The 40 proposals that were developed are divided in six sectors which underwent detailed analysis, incorporating design thinking principles to enhance user-centric aspects.





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Part 2. Guidelines for AI in parliaments

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5 AT system design

Ethical principles

Democracy rests on accountability and transparency, key tenets of parliamentary institutions everywhere. Ethical principles provide a framework for developing and deploying parliamentary AI systems that are trustworthy, transparent, and aligned with human values. This helps to ensure that the benefits of AI are maximised while minimising the potential harms.

It is imperative that when AI technologies are developed, implemented, and used, respect for human dignity and privacy prevails - as well as fairness, equity, and non-discrimination, among other values and principles. Parliaments must address biases in data and algorithms and help preserve human values and cultural diversity, for instance through careful model training and deployment. This will require new criteria for evaluation and mitigation of any unintended consequences from AI. Public participation and engagement will become increasingly important to ensure consensus around AI and its adaptation to each parliamentary context. Ultimately, respect for the rule of law and democratic values are at stake.

1.1. Ensure accountability and transparency

> Why does it matter?

Ensuring accountability and transparency in the use and deployment of parliamentary AI systems is necessary to maintain the integrity of democratic processes and protect the rights and interests of citizens.

> Are there known examples?

In 2020, The Parliamentary Assembly of the Council of Europe (PACE) adopted resolutions and recommendations exploring the implications of AI on democracy, human rights, and the rule of law.²⁹ It also endorsed a set of fundamental ethical principles to be upheld during the development and implementation of AI applications. These principles encompass, among others, transparency, and human accountability for algorithmic decisions.

> How can this be implemented?

To promote accountability, auditability, and transparency in parliamentary AI systems, parliaments need to implement clear usage policies, prioritise ethical principles, and establish independent audit bodies for oversight. Moreover, parliaments need to establish transparent data practices, as well as algorithmic accountability, and regularly report on system performance and algorithms. In this respect, explainable AI is an important approach that deserves to be encouraged but is facing technical limits.³⁰ Engagement with stakeholders and experts for feedback and to address biases should not be neglected. Ultimately, active legislative involvement in ongoing system oversight needs to be the norm.

> Further recommendations and considerations

- Encourage research and academic institutions to conduct independent evaluations of AI systems used in parliamentary processes.
- Foster a culture of accountability and transparency within the parliamentary environment, where members and staff are encouraged to embrace these principles.

1.2. Respect human dignity, human and fundamental rights, and data protection regulations

> Why does it matter?

Parliamentary bodies can ensure that AI technologies are used ethically and responsibly. Respecting human dignity and privacy in all aspects of AI development and implementation is crucial to safeguarding the rights of individuals involved in or affected by parliamentary processes within the institutional workspace.

> Are there known examples?

The principles outlined by the Parliamentary Assembly of the Council of Europe (PACE) in 2020 encompass justice, fairness, privacy, and others, and must be adhered to during the development and deployment of AI applications. ³¹

> How can this be implemented?

Parliaments can uphold human dignity and privacy in AI by adopting strict data protection rules and policies, enforcing ethical AI guidelines, and conducting regular privacy impact assessments. Moreover, transparent AI systems can ensure that personal information is handled with care and that individuals' rights and dignity are respected.

- The establishment of a data protection officer (DPO) or privacy advocate within the parliamentary system contributes to overseeing privacy compliance and providing guidance. In the European Union context, DPOs have been introduced through the General Data Protection Regulation (GDPR).³²
- In addition, a code of ethics specific to AI usage in parliament can be considered that includes principles related to privacy and human dignity.



1.3. Apply principles of fairness, equity, and non-discrimination

> Why does it matter?

Applying the principles of fairness, equity, and non-discrimination in the use and deployment of parliamentary AI systems is central to ensure that these technologies do not perpetuate biases or inequalities within the political or institutional processes.

> Are there known examples?

In 2020, the Parliamentary Assembly of the Council of Europe (PACE) supported a collection of fundamental ethical principles for the development and implementation of AI applications.³³ These principles include, among others, justice and fairness. A resolution preventing discrimination caused by the use of artificial intelligence was adopted.³⁴

> How can this be implemented?

Parliaments can promote these AI principles by ensuring diverse AI development teams, conducting bias audits, and establishing clear guidelines to mitigate bias in decision-making processes. Regularly reviewing AI systems for potential disparities and addressing them promptly further reinforces these principles.

> Further recommendations and considerations

Biases are inherent and, in fact, essential components of political processes. AI can provide valuable tools for identifying various biases, thereby aiding structured political argumentation. The focus here is on undesirable, discriminatory bias that can be caused by insufficient or non-balanced training data. Tackling such issues might require engaging with marginalised communities and advocacy groups to gather feedback on AI systems' impacts and make improvements accordingly. Furthermore, one could establish a culture of ethical AI use within parliament, where fairness, equity, and non-discrimination are core values. Additionally, parliaments could collaborate with research institutions and civil society organisations to conduct studies on AI's impact on fairness and equity in parliamentary processes.

1.4. Understand and address potential biases in the underlying data and algorithms

> Why does it matter?

Understanding and addressing potential biases³⁵ in input training data is a critical step in ensuring that AI systems used in parliamentary processes adhere to principles of fairness, equity, and non-discrimination. Parliamentary institutions can proactively address potential biases in input training data and algorithms, ensuring that AI systems are more likely to produce fair and unbiased outcomes in support of political or institutional decision-making processes.

> Are there known examples?

There is a range of bias risk depending on the application of AI, which is also linked to the training and development of foundation models. US Executive Order 14110 tackled, among others, bias related issues.³⁶

> How can this be implemented?

Parliaments can apply principles by thoroughly scrutinising and auditing training data sources to detect and mitigate biases. In addition, they can employ transparent data collection methods, ensure diverse and representative datasets, and regularly evaluate the AI system's outputs to identify and rectify potential biases in both the data and algorithms used. However, certain counteractions to data biases may be ethically questionable at best or necessitate methods and technologies that have yet to be developed.

> Further recommendations and considerations

- Promote a culture of data ethics³⁷ within the parliamentary workspace, emphasising the importance of addressing biases.
- Foster collaboration with academic institutions and research organisations to stay updated on best practices in bias detection and mitigation.
- Consider publishing transparency reports that detail the steps taken to address bias in AI systems and their impact on fairness and equity.

In this context, it is significant to recognise that the utilisation of historical data is inherently biased across nearly all contexts. Addressing this bias often necessitates interventions not only at the training data layer but also within the algorithmic layer. However, if "interventions" means, for instance, excluding certain data because of a political stance, one enters difficult as well as perilous territory.

1.5. Avoid using training data that breaches intellectual property rights

> Why does it matter?

Avoiding the use of training data that breaches intellectual property (IP) rights is not only an ethical imperative but also a legal requirement. Issues may arise, for instance, when utilising third-party non-parliamentary data whose usage deviates from their initial publication purpose. When developing AI systems for parliamentary use, one has to adhere to pertinent IP laws and regulations. Parliamentary institutions can ensure that their AI development processes respect IP rights and adhere to ethical and legal standards, mitigating the risk of IP infringement.

> Are there known examples?

Alleged breaches of IP rights in the training of foundational models have been reported, though none have been directed at parliaments. Notably, in 2023, OpenAI faced a class action copyright lawsuit before a San Francisco federal court alleging that its AI chatbot ChatGPT was trained on books without obtaining permission from the authors.³⁸ In the same year, the New York Times filed a lawsuit against OpenAI and Microsoft, alleging the use of its proprietary material to train chatbots, which now directly compete with the newspaper.³⁹

> How can this be implemented?

Parliaments can avoid infringing IP rights in training data by obtaining proper permissions, using open-source or licensed data, and conducting due diligence to ensure data sources are compliant with copyright and licensing agreements. For national or subnational parliamentary AI systems this might still be feasible via broad agreements with governmental agencies, publishers, media, or big data owners.

However, for systems trained with global data such an approach is challenging and maybe impractical. This thought experiment leads to the questioning of general scope models for parliamentary applications.

Parliamentary documents should be used for training, too - they are in principle not under IP protection.

> Further recommendations and considerations

The importance of respecting IP rights should be deeply embedded in the institutional culture. Besides the ethical aspects, however, there are legal ones. Therefore, there needs to be a collaboration with legal experts specialising in IP and technology law to ensure full compliance with IP regulations. These in-house or external experts need to stay informed about evolving IP laws and best practices in AI and specifically in LLM development to adapt policies and practices accordingly.

1.6. Preserve human values and cultural diversity

> Why does it matter?

Preserving human values and cultural diversity in parliamentary AI design and implementation is essential to ensure that AI technologies align with the ethical and cultural norms of the society they serve. This helps foster a more inclusive and culturally sensitive parliamentary environment.

> Are there known examples?

The 2020 Parliamentary Assembly of the Council of Europe (PACE) resolutions and recommendations specifically tackled the opportunities and risks of AI for human rights.⁴⁰ Human rights and values are related concepts, however unlike human rights, values are not necessarily universal or legally binding and can vary significantly across different cultures and societies.

> How can this be implemented?

Preserving human values and cultural diversity in parliamentary AI design involves the engagement of inclusive development teams, ensuring diverse perspectives, and cultural sensitivity. Teams could undergo cultural sensitivity training to comprehend nuances and the pertinent ethical framework.

However, societies might also be deeply divided over values. Values are not comprehensively codified and thus difficult to identify or describe. Hence, when examining guideline implementation in any given parliament, constitutional norms should be referred to on top of the universally codified human rights, instead of the vaguer term "values".

- Collaborate with cultural organisations, experts, and academic institutions to gain insights into the cultural dimensions of AI design and deployment.
- Encourage research and academic studies on the cultural implications of AI use in parliamentary processes.
- Maintain open channels of communication with culturally diverse communities to ensure ongoing feedback and responsiveness to their concerns.



1.7. Evaluate and mitigate unintended consequences or collateral damage

> Why does it matter?

Parliamentary institutions can be proactive when assessing and mitigating any unintended consequences or collateral damage resulting from the utilisation of AI systems, thereby ensuring responsible and accountable AI deployment in parliamentary processes.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Addressing unintended consequences of parliamentary AI may involve several complex steps. First, establishing a comprehensive evaluation framework is crucial. This framework should include regular impact assessments, complemented by third-party audits for impartial insights. Continuous monitoring of AI systems will ensure timely intervention. Additionally, incorporating user feedback mechanisms will allow for direct input, enabling adjustments to mitigate any adverse effects and enhance overall performance and accountability.

> Further recommendations and considerations

- Consider assessments and recommendations from the evaluation of existing systems.
- Stay informed about emerging AI research, best practices, and ethical guidelines to adapt to evolving challenges and mitigate potential consequences.
- Encourage parliamentary staff and members to undergo training on AI systems and their potential consequences.
- Promote a culture of responsible AI use within the parliamentary environment, where individuals are encouraged to report concerns and propose improvements.

1.8. Encourage public participation and engagement in developing, implementing, and overseeing parliamentary AI systems

> Why does it matter?

Encouraging public participation and engagement in the development, implementation, and oversight of parliamentary AI systems can be considered during the inception phase to ensure inclusiveness, transparency, and representation. This should reflect the values, needs, and perspectives of the public whom parliaments serve, promoting a more inclusive and representative democratic process.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliaments can establish dedicated platforms for public input, host public consultations or hearings on AI policies, and even create advisory boards with citizen participation. Experts and citizens should have access to information regarding the datasets, models, and processes, enabling them to interact in a participative and proactive manner. Parliaments can also release AI-related documents for public review and feedback, ensuring more inclusive processes in developing, implementing, and overseeing parliamentary AI systems.

- Promote a culture of active citizenship and democratic participation, where individuals are encouraged to take an active role in shaping parliamentary AI policies and practices.
- Use technology to facilitate virtual participation, allowing citizens from diverse locations to engage in discussions and consultations.
- Recognise and celebrate the contributions of citizens and organisations that actively engage in shaping the responsible use of AI in parliament.
- Investing in AI literacy might be another approach that citizens can be part of in these co-creation processes.



1.9. Respect the rule of law and democratic values

> Why does it matter?

Respecting the rule of law and democratic values in the development and use of parliamentary AI is paramount to maintain the integrity of democratic processes and uphold legal principles existing at the international and national level. This helps to promote a democratic and legally compliant environment in the parliamentary context.

> Are there known examples?

In 2020, PACE passed a collection of resolutions and recommendations, analysing both the potential benefits and dangers of AI mainly concerning democracy and the rule of law.⁴¹

> How can this be implemented?

Parliaments should ensure that AI systems comply with existing legal and constitutional frameworks and relevant AI guidelines, including ethical ones. Representative institutions can also establish transparent accountability mechanisms, regularly audit AI processes, and involve legislative oversight to guarantee AI aligns with democratic values, legal-constitutional standards, and citizens' rights.

Possible avenues to ensure the guarantee of citizens' rights when parliaments use AI systems include adapting existing instruments, such as the International Covenant on Civil and Political Rights⁴² or adopting specific legal instruments that are currently under development to tackle this issue specifically.⁴³

> Further recommendations and considerations

- Foster a culture of legal and ethical awareness within the parliamentary workspace, emphasising the importance of upholding democratic values and the rule of law.
- Collaborate with legal experts, academic institutions, and civil society organisations specialising in AI governance and democratic values.
- Keep abreast of emerging legal developments and global best practices in AI governance to adapt policies and practices accordingly.

1.10. Use AI to promote and monitor major global, national, or regional policy goals

> Why does it matter?

Promoting and monitoring national, regional, or global goals, such as the Sustainable Development Goals (SDGs), through the use of parliamentary AI can play an important role in addressing respective challenges. Monitoring these goals is one of the core competencies of a parliament through its oversight and control functions. This approach is inherently linked to ethical principles, as it contributes to advancing efforts toward a more sustainable and equitable future.

> Are there known examples?

In the framework of digital-ready policymaking, the Scientific Service of the Hellenic Parliament is coordinating a working group on utilising AI-tools for the monitoring of SDGs on the national level.⁴⁴

> How can this be implemented?

Implementing a wide range of international agreements, such as the Kyoto Protocol and the Paris Agreement on climate change, can also benefit from the use of parliamentary AI. AI can offer data-driven insights to gather evidence and inform parliamentarians and policy makers on various aspects of such agreements. Hence, parliament can promote their implementation by leveraging AI systems to analyse and enhance policymaking, monitor progress, and address relevant issues of public policies.

> Further recommendations and considerations

- Encourage and cooperate with AI developers and researchers to focus on creating AI solutions that directly address challenges related to the implementation of international agreements and treaties.
- Promote AI literacy and capacity-building among parliamentary staff and members to facilitate effective AI-driven initiatives tackling issues related to the said goals. For this, funding opportunities and partnerships might need to be sought to support related AI projects.

The ethics of AI in parliaments

As AI guidelines in parliament are being developed further, it is imperative to integrate robust ethical considerations. To propel this, it is central to identify AI ethics champions within parliamentary bodies, along with the advocacy for ethical AI research grants to spur actionable initiatives. Moreover, the adaptability of acknowledged existing ethical frameworks – like UNESCO's⁴⁵ – to parliamentary contexts must be explored. Embracing these steps will strengthen the commitment to ethical AI deployment and uphold democratic principles in the digital age.

Guidelines for AI in parliaments

2.

Artificial general intelligence and human autonomy (agency and authenticity)

Identified as technology that is "generally smarter than humans", ⁴⁶ AGI – if developed – has the potential to assist and even replace human cognition in ways never seen before. While parliaments are complex, the subtlety of political debates and policy issues are increasingly being modelled by AI, and AGI may open the next step in assisting democracy. It i co au au thi AC au an A of be ini m

It is urgent that parliaments consider the complex relationship between AGI and human autonomy, encompassing both agency and authenticity.⁴⁷ Human autonomy is already threatened by existing technologies. The use of AGI systems could enhance or decrease human autonomy, depending on how they are designed and which domains they are built to cover.

A rigorous assessment of ethical responsibility of designers and developers needs to happen before any AGI technology projects are initiated. Recognition of AGI as a real prospect must also be encouraged, to overcome fear, learn from mistakes, and build upon successes.

2.1. Promote human autonomy, including ensuring that parliamentary AI is used to supplement high-level cognitive human capabilities rather than replace them

> Why does it matter?

Promoting human autonomy while using parliamentary AI as a supplement rather than a replacement can be essential for upholding democratic principles and preserving the value of human judgement in governance. Parliamentary institutions can lead the efforts of striking a balance between harnessing the benefits of AI and preserving the pivotal role of humans in decision-making and democratic governance.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliaments can promote human autonomy by using AI to support and augment decisionmaking. This requires the establishment of clear AI roles, training for lawmakers, and setting of guidelines that prioritise human oversight and ethical AI use. Moreover, prioritising humancentred AI design, ensuring robust human oversight, and fostering transparent decisionmaking mechanisms further reinforce the commitment to upholding democratic principles and safeguarding individual autonomy.

> Further recommendations and considerations

- In some parliamentary sectors, such as in the elaboration of legal texts or in the area of information retrieval, AI is likely to replace certain categories of (routine) human action. This transition should not be perceived as a threat to human autonomy; rather, it can contribute to the redistribution of human resources within the organisation. At present, human autonomy is needed for the more intricate cognitive tasks, while repetitive ones can be efficiently handled by AI-based tools and services.
- In this regard, parliaments will need to embed a culture of responsible AI use within their workspace, where human judgement remains central to decisionmaking. Collaboration with AI ethics experts, academic institutions, and civil society organisations is necessary to ensure alignment with best practices. Parliamentary stakeholders will also need to stay informed about technological advancements in AI that may impact human autonomy and decisionmaking in parliamentary processes.

2.2. Apply special requirements to designers and developers of parliamentary AI

> Why does it matter?

Designers and developers of parliamentary AI systems have a particular ethical responsibility with regard to AGI to prevent potential abuses and limit the impact of a strong AI or a singularity on institutions, society, and citizens. This mirrors the standard scrutiny applied by any organisation during the hiring process or when outsourcing tasks to vendors. It is necessary to ensure that their broad perspectives and ethical values align with those of the institution to maintain a harmonious collaboration. Hence, assessing designers and developers of parliamentary AGI systems for their ethical responsibility and conducting security vetting are steps to ensure that AGI systems are developed and maintained with the highest standards of integrity, accountability, and security. This way, parliamentary institutions can ensure the development of AGI technologies that align with the institution's values and ethical principles while safeguarding the security of parliamentary processes.

> Are there known examples?

Currently, explicit regulations specific to AGI are not in place. In the absence of dedicated guidelines on AGI, legislatures can apply standard procurement or human resources practices in an analogous manner.

> How can this be implemented?

An additional layer could be integrated into the AGI system development process to assess ethical dimensions, ensuring alignment with industry best practices and institutional ethical standards. Parliament can introduce ethical guidelines, security vetting, and stringent qualification requirements. Designers and developers should demonstrate their commitment to ethical responsibility, including assessing potential societal impacts, ensuring transparency, and following best practices to safeguard institutions and society from AI-related risks.

> Further recommendations and considerations

During the final discussions among the experts of the technical working group responsible for developing the guidelines, it became evident that this particular guideline might not only be exceptionally challenging to implement but also raise significant controversy from various ethical perspectives. It was included here in support of prioritising ethical considerations in future AGI development.

2.3. Promote understanding that the evolution of AI is progressive, and that AGI should be considered a real prospect

> Why does it matter?

One day, AGI might be a real prospect. Parliaments, as a central place for decisionmaking in any nation, should be prepared. Any state needs informed decision-making and preparedness for the potential societal impacts of advanced AI. This in turn helps forming responsible governance and preparedness for the potential challenges and opportunities that advanced AI may bring.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament can promote AI understanding by facilitating ongoing education, promoting public awareness, and engaging experts to discuss the progressive nature of AI. For this, a dedicated task force could be considered. Emphasising the potential of AGI as a future reality encourages proactive planning and ethical considerations for its eventual development.

> Further recommendations and considerations

- Stay informed about AI and AGI advancements, regularly updating parliamentary staff and members on the latest developments and their potential impacts.
- Collaborate with think tanks, research institutions, and international organisations focused on AGI to leverage collective expertise.

Considering AGI

Given the ongoing debate surrounding AGI's feasibility and timeline, proactive measures might be necessary to be taken by parliament. While uncertainty shrouds its realisation, these guidelines take a forward-looking stance, recognising the need to assess and address potential impacts on democratic institutions, thereby ensuring readiness for future singularity-type technological advancements.





3.

AI privacy and security

Al privacy and security are important when regulating Al in the parliamentary environment because Al systems often process sensitive data, such as personal information or national security data. Without proper privacy and security measures, there is a risk of data breaches, identity theft, and other harmful outcomes. This can undermine public trust in the parliamentary process and damage the democratic system.

Cybersecurity and privacy, including personal data protection, is best included "by-design", and as such AI model training, fine-tuning, and deployment must provide guarantees for parliaments before adoption. Secure processing of personally identifiable information (PII) is of utmost importance. Consideration of data sovereignty (the concept that data is subject to the law of the country where it is collected or stored) must also be addressed, given the inter-jurisdictional and international nature of parliamentary proceedings. The risk of overreliance on AI is a concern, which can only be addressed through rigorous AI strategy and application portfolio governance. Overall, human oversight in security decisions must be paramount.

3.1. Embed safety and robust security features into parliamentary AI systems

> Why does it matter?

Embedding safety and robust security features into parliamentary AI systems is crucial to protect individuals, the intranet, and the institution itself from potential harm and cybersecurity threats. A comprehensive security-by-design approach can help to enhance the security and safety of AI systems in legislatures.

> Are there known examples?

The 2020 Parliamentary Assembly of the Council of Europe (PACE) resolutions and recommendations on AI include, among others, safety and security principles.⁴⁸

> How can this be implemented?

Parliament can ensure safety and security in AI systems by requiring rigorous testing, encryption, and compliance with cybersecurity standards. Continuous monitoring, vulnerability assessments and response protocols should be established to prevent harm to individuals, safeguard the intranet and protect the institution from potential threats and breaches.

> Further recommendations and considerations

- Foster a culture of security awareness within the parliamentary workspace, where individuals are vigilant and proactive in identifying and reporting security concerns.
- Establish a dedicated cybersecurity team or unit responsible for continuously monitoring and improving the security of AI systems.
- Collaborate with government cybersecurity agencies and experts for guidance on securing parliamentary AI systems effectively.
- Bear in mind that many MPs want to work with text-generating AI. For such a service, internal chatbots and access restrictions must be used to ensure that confidential data is not unintentionally disclosed to unauthorised third parties.

3.2. Include privacy-by-design concepts in the development of parliamentary AI systems

> Why does it matter?

Including privacy protection in the design and deployment of parliamentary AI systems can be useful to safeguard sensitive information and ensure responsible AI use. They should be designed and deployed in a way that respects individuals' privacy rights and complies with data protection laws, thereby promoting responsible and ethical AI use.

> Are there known examples?

In 2020, the Parliamentary Assembly of the Council of Europe (PACE) adopted a set of resolutions and recommendations, among others, on privacy and data protection.⁴⁹

> How can this be implemented?

Parliaments can integrate privacy measures by adhering to robust data encryption, access controls and regular security audits. AI design should incorporate privacy-by-design principles and compliance with existing data protection regulations to ensure the highest level of privacy safeguards in parliamentary AI systems.

- Collaborate with privacy experts, legal professionals, and data protection authorities to ensure compliance with privacy regulations.
- Engage in regular training and awareness programmes for parliamentary staff and members regarding privacy and data protection in the context of AI.
- Stay informed about evolving privacy threats and adapt AI systems and practices accordingly.



3.3. Ensure that personally identifiable information (PII) processed by AI systems is secured and that appropriate safeguards are in place

> Why does it matter?

Securing personally identifiable information (PII) when AI systems are involved is paramount to protect individuals' privacy and comply with data protection regulations. This guideline is a refinement of the previous one, specifically referring to the protection of personal data.

> Are there known examples?

In 2020, the Parliamentary Assembly of the Council of Europe (PACE) adopted a set of resolutions and recommendations, on privacy and data protection, among other considerations.⁵⁰

> How can this be implemented?

Parliament must recognise that AI systems handle PII, necessitating strict data protection protocols. This requires implementation of strong encryption, access controls, and audits. Additionally, parliaments need to establish internal and external oversight to ensure compliance with data protection regulations and ethical standards, for instance via automatic pseudonymisation of PII which can safeguard sensitive information processed by AI systems.

> Further recommendations and considerations

- Comply with relevant data protection laws and regulations, such as the General Data Protection Regulation (GDPR),⁵¹ the Health Insurance Portability and Accountability Act (HIPAA),⁵² or other applicable regional laws, when handling PII.
- Regularly update staff and members on PII security best practices and data protection policies.
- Collaborate with privacy and security experts to ensure that the handling of PII in AI systems is in line with industry standards and best practices.

By following these steps and considerations, parliamentary institutions can establish robust safeguards to protect PII when AI systems are involved, ensuring data security and privacy for individuals while remaining compliant with data protection regulations.

3.4. Understand what is stored, processed, and captured in any outsourced AI system

> Why does it matter?

When outsourcing AI solutions for parliamentary use, it is a prerequisite to have a comprehensive understanding of what data is stored, processed, and captured by the AI system, with a particular focus on privacy, data protection, and confidentiality.

> Are there known examples?

At the principles level, see PACE 2020 AI principle on privacy and data protection.⁵³ In June 2023, following two months of experimentation with GPT 4.0, the Chief Administrative Officer (CAO) of the US House of Representatives called Congressional offices to limit the use of commercial LLM services and to switch back to ChatGPT, while providing guidance on how to safeguard sensitive data.⁵⁴

> How can this be implemented?

Parliament should demand transparent data practices, detailed data inventory, and rigorous privacy assessments. Contracts should specify data usage and protection, with third-party vendors held to strict privacy and security standards to safeguard sensitive parliamentary information and ensure compliance with privacy regulations. Vendors must also adhere to the rigorous standards expected of service providers in high-security sectors.

- Engage legal and privacy experts to review contracts and agreements with the outsourcing vendor to ensure that privacy and confidentiality considerations are adequately addressed.
- Stay informed about evolving data protection regulations and adapt outsourcing arrangements accordingly.



3.5. Understand and agree to any data and infrastructure sovereignty issues when processing data

> Why does it matter?

Understanding and agreeing to data and infrastructure sovereignty issues when processing data, particularly in the context of outsourcing AI services, is crucial to ensure compliance with data protection regulations and to address potential legal and geopolitical concerns.

> Are there known examples?

Using a commercial AI system developed and based in one country might be a risk for any parliament in other countries. The main example here is the ChatGPT⁵⁵ from the US company OpenAI Inc. While it is used by the US Congress, for reasons of national security, other parliaments might consider open source or country-specific models, run in safe and secured infrastructure environments.

> How can this be implemented?

Parliaments should identify data sovereignty concerns by conducting impact assessments, clarifying data ownership, and establishing jurisdictional rules. Agreements and policies must define how data is processed and ensure compliance with local and international regulations, fostering a shared understanding of data sovereignty within the parliamentary AI context. Finally, national parliaments should explore utilising AI systems that leverage the national high-performance computing (HPC) infrastructure.

> Further recommendations and considerations

- Stay informed about evolving data sovereignty regulations and geopolitical developments that may impact data processing arrangements.
- Consider the use of encryption and secure communication protocols when transmitting data across borders to mitigate the risk of data interception or unauthorised access.

By following these steps and considerations, parliamentary institutions can navigate data sovereignty issues effectively, ensuring that data is processed in compliance with legal requirements and addressing potential challenges associated with cross-border data transfer when outsourcing AI systems. In this context, the sovereignty of training and testing data could also be investigated as a separate concept.

3.6. Make sure that AI cannot replace original source material with synthetic data

> Why does it matter?

Recognising that parliamentary AI should not replace original source material with generated and thus synthetic content but rather supplement the parliamentary corpus space in a meaningful way is a basic guideline for responsible and effective AI use. In this way, its legislative, proceedings, and administrative documents are not altered over time, so that the accuracy and integrity of historical and contemporary data is maintained. AI-based ransomware attacks that encrypt and overwrite parliamentary data are a typical critical scenario that should be avoided.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament must acknowledge that AI should complement, not replace, original source material. It should set strict guidelines and workflows that prioritise human oversight and decision-making, while AI serves as a valuable tool for analysis and augmentation of data, ensuring that it supplements, rather than supplants, the parliamentary work products.

- Enable a culture of responsible AI use within the parliamentary workspace, where human judgement and the importance of original source material are emphasised.
- Collaborate with AI ethics experts and organisations to develop guidelines and practices that reinforce the role of AI as a supplementary tool.



3.7. Recognise that an overreliance on AI may be risky

> Why does it matter?

Recognising the risk of overreliance on Al systems in the parliamentary context is crucial to prevent a false sense of security and maintain the predominant role of human judgement. Parliamentary institutions can strike a balance between leveraging the benefits of Al and maintaining a healthy scepticism to prevent overreliance and the false sense of security it may bring.

> Are there known examples?

There are several parliamentary actors worldwide currently using LLMs in their work. Research has already pointed at the potential risks of excessive dependence on AI, which could create a misleading sense of security during parliamentary operations. Therefore, caution is advised by refraining from placing unconditional trust in LLMs and their outputs, while at the same time recognising the probability of generating hallucinations and errors.⁵⁶

> How can this be implemented?

Parliament must be vigilant about overreliance on AI, recognising the potential for complacency and a false sense of security. Hence, it should continuously prioritise human involvement and decision-making, and maintain a proactive approach to AI system management to prevent an undue dependence that could compromise parliamentary integrity and effectiveness.

> Further recommendations and considerations

- Foster a culture within the parliamentary workspace that encourages critical thinking and the active engagement of human intellect alongside AI systems.
- Conduct regular surveys and feedback sessions with staff and members to gauge their perception of AI and its role in parliamentary processes.

3.8. Secure the training and testing data of any parliamentary AI system to protect it from cybersecurity attacks aimed at retraining a system to interact in a specific way

> Why does it matter?

Securing the training data of parliamentary AI systems is crucial to prevent adversaries from attempting to manipulate or retrain these systems for malicious purposes. This safeguards the integrity and reliability of AIgenerated insights and recommendations in the parliamentary space.

> Are there known examples?

Numerous reports detail attacks on parliamentary systems, yet as of now, no recorded or publicly documented attacks on parliamentary AI systems exist. A data management approach for parliamentary AI remains undisclosed.

> How can this be implemented?

Parliaments should employ robust cybersecurity measures, including encryption and access controls, to safeguard training data from adversaries. Regular security audits, intrusion detection systems, and strict data access protocols can prevent unauthorised attempts to retrain AI systems, ensuring the integrity of parliamentary AI interactions and protecting against malicious tampering.

- Collaborate with cybersecurity experts to continuously assess and improve the security of training data and AI systems.
- Develop an incident response plan specific to data breaches or security incidents related to training data.



3.9. Ensure security decisions are made by humans

> Why does it matter?

Emphasising the importance of human oversight and ensuring that security decisions are escalated to human operators is a critical aspect of responsible AI use, particularly in the parliamentary context.

> Are there known examples?

The Parliamentary Assembly of the Council of Europe (PACE) 2020 resolutions and recommendations specifically refer to the AI principle on human responsibility for decisions.⁵⁷

> How can this be implemented?

Parliament should implement rules of procedure and protocols that mandate the escalation of security decisions to human operators. Al systems can assist in threat detection, but critical security judgments should be made by humans, ensuring accountability, ethical considerations, and the ability to respond to complex, evolving threats effectively.

> Further recommendations and considerations

- Attempt to establish a culture of vigilance and responsibility within the parliamentary workspace, where human operators are encouraged to actively engage with AI systems and question their outputs when needed.
- Collaborate with cybersecurity experts and professionals to reinforce human oversight and enhance AI security measures.

By following these steps and considerations, parliamentary institutions can maintain the primary role of human oversight in AI security, effectively responding to security incidents and ensuring responsible and secure AI use in the parliamentary context.





4.

AI governance and oversight

AI systems should be developed and deployed in ways that are consistent with democratic values and processes. Parliamentary oversight can provide legitimacy to AI-based results, while effective AI governance can promote innovation and advance the public interest. The rapid emergence of AI projects at varying stages of maturity requires careful integration into a broader digital parliamentary strategy. Among several technological challenges, efficient data governance and management protocols must be updated for the new reality of widespread AI use. Establishment of a parliamentary ethical oversight of AI will also ensure that strategy and practice are carefully aligned. Governance teams can be considered accountable for the assessment of the effects of parliamentary AI on various practices. Furthermore, cooperation with AI stakeholders for policy development will ensure parliaments become agents of change and adoption leaders, helping to fully leverage the potential of AI throughout society.

4.1. Embed the design and implementation of AI systems into a broader digital parliamentary strategy

> Why does it matter?

Embedding the design and implementation of AI systems into a broader digital parliamentary strategy ensures that AI contributes effectively to parliamentary goals and objectives while aligning with the institution's overall digital transformation efforts and enhancing efficiency, transparency, and accountability.

> Are there known examples?

In February 2024, the Supervisory Committee on Documentation Activities of the Italian Chamber of Deputies published a set of principles for using AI to support parliamentary business.⁵⁸ Parliamentary AI systems are embedded in the 2021-2024 digital strategy of the Brazilian Chamber of Deputies.⁵⁹

> How can this be implemented?

Parliament can integrate AI systems into a broader digital strategy by aligning AI objectives with overarching parliamentary goals, emphasising cross-functional collaboration, ensuring scalability, and adapting AI to complement existing digital initiatives. This approach ensures that AI serves as an integral component of the parliamentary digital ecosystem.

> Further recommendations and considerations

- Seek input and expertise from AI specialists, digital strategists, and technology leaders to inform the integration process.
- Regularly review and update the digital parliamentary strategy to ensure that it remains aligned with the evolving AI landscape.

4.2. Utilise efficient data governance and management protocols that ensure the accuracy, completeness, and security of data used in AI systems

> Why does it matter?

Efficient data governance and management protocols need to be in place to ensure the accuracy, completeness, and security of data used in AI systems within parliamentary processes, promoting transparency, accountability, and effective AI use in parliamentary processes.

> Are there known examples?

While data governance is a well-established concept,⁶⁰ specific data governance schemes for parliaments have not been defined. Moreover, no comprehensive protocols for managing data used in parliamentary AI systems could be identified.

> How can this be implemented?

Parliament can establish rigorous data governance and management protocols to maintain accurate, complete, and secure data for AI systems. This involves data quality checks, encryption, access controls, regular audits, and compliance with data protection regulations, ensuring the reliability and integrity of data used in AI applications.

- Collaborate with data governance experts and professionals to design and implement effective data governance protocols.
- Engage with parliamentary members and staff to solicit their input and feedback regarding data governance and data management practices. In this context, the findable, accessible, interoperable, and reusable (FAIR) data (management) principles and approach could be considered.⁶¹



4.3. Create and empower a parliamentary ethical oversight body or add the task to an existing oversight committee that reviews parliamentary AI systems and applications

> Why does it matter?

Creating and empowering a parliamentary AI ethical oversight body or assigning the task to an existing oversight committee is a proactive approach to ensure responsible and ethical use of AI systems in parliamentary processes.

> Are there known examples?

Current information on parliamentary ethical oversight bodies regarding AI oversight remains rudimentary, as parliaments appear to exercise caution on this matter, perhaps due to limited expertise in the sector.

> How can this be implemented?

Parliament can establish a dedicated ethical oversight body or empower an existing committee to review AI systems. This body should comprise experts, lawmakers, and stakeholders, ensuring transparent evaluations of Al applications. Regular assessments, adherence to ethical guidelines, and public accountability can contribute to responsible and unbiased use of AI in parliamentary settings.

> Further recommendations and considerations

- Encourage the oversight body to collaborate with international organisations and institutions that focus on AI ethics to stay informed about global best practices.
- Publicise the work and impact of the oversight body to build trust and credibility with parliamentary stakeholders and the public.

4.4. Monitor the effects of AI on a wide range of critical issues

> Why does it matter?

A continuous monitoring of the effects of AI on a wide range of issues including intellectual property, liability and accountability, employment and labour, socio-economic issues, privacy and data protection, bias and discrimination, national security and defence, ethical governance and oversight, and environmental matters, could be utilised to understand the implications and make informed decisions regarding its implementation.

> Are there known examples?

Impact assessments are commonly employed in law-making within several parliamentary systems. However, evaluating the effects of AI has not yet been practically addressed.

> How can this be implemented?

Parliament can assess the effects of AI on these issues through ongoing research, consultations, and impact assessments. Collaborating with experts, engaging stakeholders, and regularly reviewing AI applications ensures a comprehensive evaluation, allowing lawmakers to adapt policies and regulations to address evolving challenges across various domains.

- Consider establishing a dedicated parliamentary committee or task force to oversee and coordinate the assessment of AI effects on various issues.
- Develop a comprehensive framework for conducting impact assessments, including standardised methodologies and reporting mechanisms. By conducting thorough assessments across these key issues, parliamentary institutions can gain a holistic understanding of Al's effects and make informed decisions to harness its benefits while mitigating potential risks and challenges.



4.5. Ensure secure access to and control over the data used in parliamentary AI systems

> Why does it matter?

Ensuring secure access to and control over the data used in parliamentary AI systems is crucial to maintain accountability, data protection, and data security. This in turn allows parliaments to monitor decision-making processes by AI systems.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament can ensure secure data access by implementing robust data management protocols, access controls, and encryption. For the same purpose, parliaments can establish clear data-sharing policies, grant access on a need-to-know basis, and regularly audit data usage to strike a balance between access security and control in parliamentary AI systems.

> Further recommendations and considerations

Institutions can employ or collaborate with data privacy experts and cybersecurity specialists to design and implement robust data access and control measures. At the same time, they can stay on top of evolving data protection regulations to ensure compliance with changing legal requirements.

4.6. Cooperate with stakeholders from various sectors to develop resilient policies and regulations that foster innovation while protecting human rights

> Why does it matter?

Cooperating with stakeholders from various sectors including other parliaments, academia, civil society, and industry, is considered essential to develop resilient policies and regulations that strike a balance between fostering innovation and protecting human rights in parliamentary AI systems.

> Are there known examples?

Formed in 2017, the Hellenic Optical Character Recognition (OCR) Team⁶², is a scientific crowdsourcing initiative facilitating collaboration among representative institutions, parliamentary scholars, and professionals globally.^{63 64}

> How can this be implemented?

Parliament can foster cooperation with diverse stakeholders through open dialogue, collaborative working groups, and knowledge exchange. Cooperation may include input from academia, civil society, industry, and interparliamentary networks and can help craft well-informed policies that encourage innovation while upholding human rights and ethical principles in AI development and regulation.

> Further recommendations and considerations

- Regularly review and update AI policies and regulations to adapt to evolving technology and societal needs.
- Promote transparency in policy making by making drafts, proposals, and impact assessments publicly accessible for scrutiny and feedback.

Key proposals for AI governance and oversight

Key proposals for AI governance and oversight could include appointing a parliamentary officer to oversee AI governance and compliance. Additionally, the establishment of an AI transparency portal can enhance accountability and public trust. Furthermore, providing AI training for parliamentarians may ensure informed decision-making and effective utilisation of AI technologies within legislative processes. 5.

AI system design and operation

Design and operational guidelines provide a framework for introducing Al in the parliamentary workspace. They highlight the importance of regulating the use of AI systems, assessing risks, and monitoring their impact. Additionally, they emphasise the need to ensure accuracy and ethical considerations, and to involve all relevant stakeholders in the decisionmaking process.

Numerous technological issues are raised by AI projects, presenting both innovation opportunities and risks to parliamentary institutions. Implementation of standardised data schemes and processes is essential for Al to be adapted to the politicised nature of parliamentary information. Emphasis on Al algorithms' explainability is also important to ensure that decisions by elected officials can be transparently linked to their criteria and supporting evidence. Building robust and reliable AI systems will require a greater concern as well for reproducibility of decisions and learning from best cases. Parliaments can also help in the regulation of AI use and deployment, both within their institutions and for society, by serving as lead users. Monitoring and evaluation of AI systems will also require an open architecture enabling oversight teams' greater access to endusers by consent. Ultimately, parliamentary stakeholders must reach an agreement on minimum accuracy levels, decision-making quality, and institutional performance.

5.1. Implement standardised data schemes and processes to ensure interoperability and compatibility across different AI platforms and applications

> Why does it matter?

Implementing standardised data schemes and processes, ideally using standards of the International Organization for Standardization (ISO), is necessary to ensure interoperability and compatibility across different platforms and applications within parliamentary AI systems.

> Are there known examples?

It is crucial to develop structured, validated, and open datasets, preferably in a standardised format. Legal standards such as Akoma Ntoso (AKN) could offer long-term benefits by facilitating harmonisation of legal sources and systemic interoperability.65 AKN is routinely used by the European Parliament, the Senate of Italy, the Senate of Brazil, the Parliament of Uruguay, the Chamber of Deputies of Argentina, the Chamber of Deputies of Chile, UK institutions, and the US House of Representatives.66

> How can this be implemented?

A parliament can establish a centralised regulatory body to define and enforce standardised data schemes and processes. This body should collaborate with tech experts, set clear guidelines, and mandate adherence for all platforms and applications, fostering interoperability and compatibility while ensuring data security and privacy standards are met.

> Further recommendations and considerations

- Conduct periodic reviews and updates of standardised data schemes and processes to accommodate evolving data needs and technological advancements.
- Seek input and feedback from experts and stakeholders in data management and interoperability to continually improve standardisation efforts.

5.2. Emphasise AI algorithms' explainability

> Why does it matter?

Emphasising AI algorithms' explainability related to its parliamentary use cases ensures that the reasoning behind AI-driven decisions and recommendations is clear, understandable, and accessible to relevant stakeholders. This is crucial for fostering trust, comprehension, and transparency, and enabling informed decisionmaking within parliamentary AI systems.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament can mandate transparent AI systems by requiring developers to employ explainable algorithms. This involves using interpretable models, providing understandable documentation, and establishing oversight mechanisms to ensure accountability.

- Clearly communicate the limitations of AI algorithms' explanations to manage expectations and avoid misconceptions.
- Develop standardised templates or guidelines for AI algorithm explanations to ensure consistency and clarity.



5.3. Build robust and reliable parliamentary AI systems that include the ability to detect and correct errors and failures

> Why does it matter?

Building robust and reliable parliamentary AI systems with error detection and correction capabilities is crucial for maintaining the integrity and effectiveness of these systems.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament can ensure robust AI systems by mandating rigorous testing, continuous monitoring, and implementing fail-safe mechanisms. Regular audits, feedback loops, and a dedicated oversight body can detect and correct errors promptly, enhancing reliability and maintaining the integrity of parliamentary AI systems.

> Further recommendations and considerations

- Conduct regular system audits and postimplementation reviews to identify areas for improvement in system reliability and error handling.
- Collaborate with experts in software engineering and reliability engineering to ensure best practices are followed.

5.4. Regulate the use and deployment of parliamentary AI systems, including risk assessments, licensing requirements, and safety standards

> Why does it matter?

Regulating the use and deployment of parliamentary AI systems both through legally binding and non-binding instruments is vital to ensure responsible and ethical adoption of AI technologies within parliamentary processes.

> Are there known examples?

As of mid-2024, no specific regulatory measures have been identified. These guidelines could serve as inspiration or a foundation for defining such measures within parliaments.

> How can this be implemented?

Parliament can regulate AI systems by establishing comprehensive frameworks, conducting risk assessments, and defining licensing requirements. Enforcing safety standards, periodic audits, and collaboration with experts ensures responsible deployment, fostering a secure and accountable environment for parliamentary AI systems.

- Collaborate with experts in AI ethics, law, and technology regulation to ensure that the regulatory framework is comprehensive and up to date.
- Seek input and feedback from relevant stakeholders, including civil society, academia, and industry, when developing and revising AI system regulations.



5.5. Risk assess the use of a software as a service (SaaS) product or cloud-based implementation that contains AI features

> Why does it matter?

Performing a risk assessment when utilising a SaaS product or cloud-based implementation with AI features ensures ethical considerations and other protections are upheld.

> Are there known examples?

There are no known examples of frameworks demanding risk assessments specifically for Al-based parliamentary systems. In the broader sense, the EU's AI Act includes comparable provisions concerning particularly capable and impactful systems.

> How can this be implemented?

Parliament can conduct a thorough risk assessment of SaaS or cloud-based AI services by evaluating data privacy, security measures, ethical considerations, and vendor transparency. Establishing regulatory guidelines, certification requirements, and continuous monitoring ensures ethical and comprehensive protections in deploying such technologies.

> Further recommendations and considerations

- Collaborate with experts in AI ethics and responsible AI to conduct thorough risk assessments and ensure that ethical safeguards are in place.
- Encourage open dialogue with the vendor to address any identified risks or concerns and seek their commitment to ethical AI usage.

5.6. Monitor and evaluate the operation and output of parliamentary AI systems

> Why does it matter?

Regularly and systematically monitoring and evaluating parliamentary AI systems is Parliamentary institutions should continually necessary to accurately assess their impact monitor and evaluate the operation and output on parliamentary processes and outcomes. of their AI systems. This active approach allows Continuous monitoring of internal AI system continuous improvements, responsible AI use, outputs ensures informed decision-making and and alignment with greater societal goals. the ability to adapt regulations for responsible parliamentary AI deployment. This again enhances trust in the tools and potentially encourages their further utilisation by MPs and administrators alike.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament can introduce regular assessments by creating oversight committees or collaborating with external experts to provide impartial evaluations. Moreover, resources and personnel can be allocated to conduct such assessments.



5.7. Agree a minimum level of accuracy with all relevant stakeholders before acceptance of an AI implementation

> Why does it matter?

The desired level of accuracy for any given parliamentary AI system is dependent on the specific application and intended use. Agreeing on a minimum level of accuracy for AI implementations with relevant stakeholders is a crucial step to ensure that AI systems meet their intended objectives and are used effectively.

> Are there known examples?

There are no known examples.

> How can this be implemented?

Parliament can ensure minimum accuracy by setting performance benchmarks, conducting independent evaluations, and seeking input from diverse stakeholders. Rigorous testing, transparency in validation processes, and soliciting feedback facilitate informed decisions on AI implementation, fostering trust and reliability among all relevant stakeholders.

> Further recommendations and considerations

- Consider the potential consequences of both false positives and false negatives when setting accuracy targets, as they may have different impacts in different use cases.
- Encourage open and transparent communication with stakeholders throughout the process to build trust and ensure alignment on accuracy goals.

Sandbox environments and innovation labs

When developing parliamentary technology, working within AI sandbox environments fosters experimentation in a controlled setting, allowing for the exploration of AI applications without risking operational disruptions. Furthermore, establishing innovation labs provides dedicated spaces for collaborative problem-solving and iterative development of AI solutions tailored to parliamentary needs. These initiatives have the potential to promote agility and innovation, while ensuring the seamless integration of AI technologies into parliamentary systems design and operation.



6.

AI capacity building and education

Capacity building and education are important when introducing AI in the parliamentary workspace because they can help to build knowledge and skills among parliamentarians and staff, which in turn is paramount for effective and responsible use of AI. This includes understanding AI technologies, their potential applications, and their impact on society, as well as the ethical and legal considerations that need to be considered. By investing in capacity building and education, parliaments can ensure that they are equipped to navigate the opportunities and challenges of AI. Capacity building and education also encompass providing MPs and parliamentary staff with the resources they need to engage and inform the public on AI, and its use in the parliamentary workspace.

of stakeholders in an open environment can help learning and diffusion of best practices. Organising training programmes on AI will also become increasingly important for capacity building and education, both inside and outside parliaments. Al enjoys a strong momentum worldwide, allowing parliaments to capitalise on knowledge exchange and cooperation across all segments of society. Public education about the use and limits of AI in parliament will ensure perceptions and expectations remain

Establishing expert teams involving a variety

6.1. Build a dedicated expert team to keep up with technology innovations in the field of AI and beyond

> Why does it matter?

Building and expanding an expert team to keep up with technology innovations in the field of AI and beyond means parliamentary institutions can stay informed, make informed decisions, and leverage the benefits of AI effectively.

> Are there known examples?

Such tasks can be taken over by foresight bodies. The Finnish Parliament operates the Committee for the Future, which practically constitutes an internal think tank.⁶⁷ In 2021, this body organised an innovative parliamentary hearing of an AI system.⁶⁸

> How can this be implemented?

Parliament can build an expert team by investing in continuous training, collaborating with external specialists, and establishing partnerships with educational institutions and the AI industry. Regular knowledge updates, interdisciplinary hiring, and fostering a culture of innovation enable parliamentary teams to stay abreast of evolving AI technologies.

> Further recommendations and considerations

- Encourage team members to publish research papers, reports, and articles to contribute to the broader knowledge base in the field of AI.
- Foster a culture of innovation within the team, allowing for experimentation and creativity in exploring AI applications for parliamentary processes.
- Identify how to build institutional connections to sources of expertise, for example, through specialising staff in research departments and connections with committees addressing AI.

6.2. Organise frequent training programmes on AI for parliamentary officials and administrators

> Why does it matter?

Organising frequent training programmes on AI for parliamentary officials and administrators can assist in developing critical AI literacy skills and promoting its responsible and ethical use within parliamentary institutions.

> Are there known examples?

Examples for training programmes on AI for parliamentary officials and administrators include the AI Insight Forum for US Senators⁶⁹ and the webinars by Inter-Parliamentary Union's (IPU) Centre of Innovation in Parliament (CIP).⁷⁰

> How can this be implemented?

Parliament can organise AI training programmes by partnering with educational institutions and industry, hosting workshops, and creating accessible online modules. Emphasising ethical considerations, data privacy, and fostering critical thinking ensures parliamentary officials and administrators develop essential AI literacy skills, promoting responsible and ethical AI use.

- Use digital learning platforms and resources to facilitate remote or self-paced learning opportunities and to encourage communication and experience sharing across parliaments.
- Establish AI academies and centres of excellence within parliaments, cultivating technical expertise and enabling collaboration.
- Consider online learning platforms⁷¹ and Massive Open Online Courses (MOOCs) that offer accessible resources for continuous skill development, ensuring MPs and staff stay updated on emerging capabilities, risks, and harms—an 'observatory' approach.
- Encourage participants to share AI knowledge and insights within their teams and departments to promote a culture of knowledge sharing.
- Consider how equipping MPs with tools and resources could enable them to educate the public, fostering transparency and public understanding of AI's implications within parliamentary processes.

6.3. Support knowledge exchange with external stakeholders and the participation in bi- and multilateral cooperation schemes

> Why does it matter?

Supporting knowledge exchange with external stakeholders and participating in bilateral and multilateral cooperation schemes are vital strategies for parliamentary institutions to stay informed, collaborate, and leverage expertise in the field of emerging technologies, enriching their understanding of AI and emerging technologies and contributing to responsible and ethical AI governance in parliamentary processes.

> Are there known examples?

Knowledge exchange on issues of AI is for instance facilitated via the Global Partnership on AI (GPAI),⁷² the United Nations' AI for Good initiative,⁷³ and – in the narrower interparliamentary context – the IPU's Centre of Innovation in Parliament (CIP).

> How can this be implemented?

Parliament can support knowledge exchange by establishing forums, partnerships, and collaborative projects with external stakeholders. Expect that parliamentary actors will exchange information with each other or consult experts on suitable prompts and approaches. Actively participating in bi- and multilateral cooperation schemes fosters information sharing, technological advancements, and policy alignment, promoting a globally informed and interconnected approach to parliamentary challenges, including those related to Al.

> Further recommendations and considerations

Promote inclusivity by involving stakeholders from diverse backgrounds and regions to ensure a broad perspective on AI governance and ethics, and encourage active participation in international AI governance initiatives.

6.4. Document the steps toward and the results of AI-related activities

> Why does it matter?

Documenting the steps toward and the results of AI-related activities builds institutional memory and allows the dissemination of knowledge within parliamentary institutions.

> Are there known examples?

When it comes to Al-related activities, the Department of Scientific Documentation and Supervision of the Scientific Service within the Hellenic Parliament has publicly and institutionally expressed its dedication to enhancing institutional memory and sharing knowledge with internal stakeholders.

The Brazilian Chamber of Deputies has developed Caggle, a collaborative digital platform,⁷⁴ to facilitate the recording, analysis, and sharing of data-driven projects and experiments. This tool allows members to work together effectively, ensuring that insights and outcomes from AI-related activities are welldocumented and readily available for ongoing organisational learning and development.

> How can this be implemented?

Parliament can document AI activities by maintaining detailed records, creating standardised reporting frameworks, and employing knowledge management systems. Regularly disseminating updates to internal actors ensures the accumulation of institutional memory, fostering transparency and informed decision-making in parliamentary AI endeavours.

- Consider employing document management software or knowledge management platforms to facilitate efficient storage, retrieval, and sharing of AI-related documentation.
- Encourage staff to contribute to documentation actively and recognize their contributions to institutional memory

6.5. Inform the public about the use and limits of AI systems in parliament in an accessible way



> Why does it matter?

Informing the public about the use and limits of AI in parliament in an easily understandable way is paramount for institutional transparency and public trust. Citizens gain insight into lawmaking and oversight processes, thus building confidence in the institution's commitment to responsible and accountable AI deployment. Informing the public about the use and limits of AI in parliament, promotes transparency, accountability, and public engagement in AIrelated matters.

> Are there known examples?

The US House of Representatives' Modernization Subcommittee has begun publishing regular "flash reports" identifying the use and planned use of AI systems in legislative support agencies.⁷⁵

> How can this be implemented?

Parliament can inform the public by launching awareness campaigns, hosting public forums, and creating user-friendly resources. Transparent communication, plain language explanations, and engagement through various media channels help convey the use and limits of AI systems in parliament in an accessible and understandable manner.

> Further recommendations and considerations

Informing the public about AI in parliament could be part of an overall parliamentary outreach and public engagement on the impact of AI in society, the economy, politics, etc. In such a framework, the parliament (for example via the press office) could periodically review and update public communication materials to reflect any changes in AI use. It could also emphasise the commitment to responsible and ethical AI use to build public trust in the institution's practices.





The way forward

Part 3.

The way forward

The actual implementation of these It might be also worth expanding the AI guidelines for parliament into a 'living guidelines in any given parliaments document', for instance through a moderated may involve several unique key online platform. This could offer the advantage steps. These almost certainly should of a continuous evolution and adaptation by incorporating real-world experiences and AI include the opening of an internal developments. discussion and maybe a public debate The ultimate goal is the transition from on the range, priorities, and nature of guidelines to accepted standards and regulation. These could be followed by regulation, identifying the necessary considerations and action on strategy benchmarks for responsible AI integration in parliaments. The current working group development, prioritisation, and technical will continue to evolve, while addressing implementation, while not neglecting actual problems and preparing for long-term any governance aspects. These steps challenges. Nonetheless, its commitment remains stable - to craft guidelines that might require a cultural shift, as it involves not only navigate the current AI landscape transforming existing procedures but also contribute to the shaping of its and processes to accommodate AI ethical, inclusive, and transparent future in parliamentary governance. technologies.

After the publication of these guidelines, critical reflection opens the way for discussions and future versions, acknowledging the everevolving landscape of AI in parliamentary systems. A collaborative SWOT analysis will certainly improve the understanding of the strengths, weaknesses, opportunities, and threats associated with the guidelines and the AI technologies.

Useful reading

Part 4.

Glossary

Artificial general intelligence (AGI): A type of Autonomous Al systems: Intelligent agents artificial intelligence that can understand, learn, that can perceive their environment, make and apply knowledge in a way that's similar decisions, and take actions independently, to human intelligence. Unlike specialised AI without requiring constant human supervision systems that are designed for specific tasks, or intervention. These systems rely on AGI aims to possess a broad range of cognitive advanced algorithms, machine learning abilities, allowing it to perform various tasks techniques, and data inputs to analyse complex and adapt to different situations without situations, adapt to changing conditions, needing to be specifically programmed for and optimise their performance to achieve each one. Essentially, AGI strives to mimic predefined goals. Examples of autonomous AI the flexibility and problem-solving skills of the systems include self-driving vehicles, robotic human mind, potentially leading to machines process automation, and intelligent personal that can think, reason, and solve problems assistants. The development of autonomous across multiple domains, just like humans do. AI systems aims to create technologies that In the long run, it can perform as well or better can operate efficiently and effectively in realthan humans on a variety of cognitive tasks. world environments, potentially revolutionising various industries and improving human life Artificial intelligence (AI): Technologies, by automating tasks and making informed learning methods, system architectures, decisions based on vast amounts of data.

Artificial intelligence (AI): Technologies, learning methods, system architectures, algorithms, and approaches that use computer capacities to replicate the capabilities of human intelligence in order to perform certain tasks independently or on command. For example: autonomous systems, machine learning, deep learning, neural networks, pattern recognition, natural language processing, real-time translations, chatbots, and robots. The capabilities provided by AI are intended to support or automate human activities and processes.

Al system: A computer system or software application that incorporates artificial intelligence (AI) technologies to perform tasks that typically require human intelligence. AI systems are designed to simulate or replicate human cognitive abilities such as learning, reasoning, problem-solving, perception, and language understanding, enabling them to analyse data, make decisions, and take actions autonomously or with minimal human intervention. **Bias detection:** Bias refers to a tendency or inclination, either conscious or unconscious, that influences the judgement or decision-making in a certain direction. In the context of artificial intelligence, bias can arise when algorithms unintentionally favour or discriminate against certain groups or outcomes due to factors like incomplete data, flawed assumptions, or preconceived notions embedded in the design or training process. It is important to detect, identify and mitigate bias in AI systems to ensure fairness, equity, and accuracy in their outputs and to prevent reinforcing or perpetuating existing societal inequalities.

Explainable AI (XAI): The capability of AI systems to provide understandable explanations for their decisions and actions. XAI aims to make AI systems more transparent and interpretable, allowing humans to understand how and why a particular decision was made. This is particularly important in contexts like a parliament where the consequences of AI decisions can have significant impacts on individuals or society as a whole.

Fairness: Al fairness is a crucial principle that ensures artificial intelligence systems treat all individuals and groups equitably, avoiding bias and discrimination based on factors such as race, gender, age, or socioeconomic status. To achieve Al fairness, non-discrimination, equal opportunity, fairness in representation and outcomes, transparency, and accountability must be considered. Achieving Al fairness is an ongoing challenge that requires careful consideration throughout the Al development lifecycle. Striking the right balance between fairness and other objectives is essential for building trust and promoting the responsible use of Al in society.

Fundamental rights impact assessment

(FRIA): The FRIA is a tool meant to help dealing with the potential dangers of advanced AI systems in a way that goes beyond just following the rules laid out for example in the EU AI Act. While the EU AI Act focuses on technical requirements and making sure AI systems meet certain standards, the FRIA looks at how these systems might affect people's basic rights and how AI could impact things like privacy, freedom of expression, and equality.

Generative AI (GenAI): GenAI is AI technology that could generate new content on the foundation of what has been learned. It does rely on recognised and learned patterns to generate synthetic data. Large language models (LLMs) support the generation of texts while AI-based translation services convert texts into comprehensible form in other languages. Other areas of application include the generation of presentations, programmes, and processes. Texts can also be used to generate voice and sound sequences in different voice pitches. The generation of images and videos is also becoming increasingly important, especially the creation of lip-synchronised videos based on image material and audio recordings.

Human autonomy: Human autonomy refers to the capacity of individuals to make independent choices and decisions without influence or coercion from external sources. It is a fundamental aspect of human dignity and self-determination, allowing individuals to exercise control over their own lives and pursue their goals and interests according to their own values and preferences. Autonomy encompasses various dimensions, including decision-making, freedom, self-governance, and respect for rights. It is a cornerstone of democratic societies, where the rights and freedoms of individuals are safeguarded and respected. In the context of artificial intelligence and automation, preserving human autonomy is a critical consideration. It involves ensuring that technological systems are designed and deployed in ways that empower individuals, respect their rights and choices, and enhance their ability to lead self-directed and meaningful lives.

Human-centred AI: This is AI that seeks to augment the abilities of, address the societal needs of, and draw inspiration from human beings. It researches and builds effective partners and tools for people, such as a robot helper and companion for the elderly. Human-Centred AI is crucial in a parliament to ensure that AI systems prioritise human well-being, democratic values, and societal needs in decision-making processes.

Hybrid AI: This is an approach to create more adaptable and capable AI that combines rule-based systems with statistical learning methods.

Intellectual property (IP): Intellectual property (IP) refers to creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, and images, which are protected by law. Intellectual property rights grant creators or owners exclusive rights to use and control their creations for a certain period of time. Types of intellectual property rights include patents, copyrights, trademarks, trade secrets, and design rights. Intellectual property rights are essential for fostering innovation, creativity, and economic growth by providing incentives for individuals and organisations to invest in research and development. AI providers who improve their language models on IP righted training data without having permission to do so are in breach of IP rights. Parliaments should not use such AI services.

Natural language processing (NLP): NLP is a branch of artificial intelligence that focuses on the interaction between computers and human language. It involves developing algorithms and models that enable computers to understand, interpret, and generate human language in the form of text or speech. NLP encompasses a wide range of tasks, such as sentiment analysis, machine translation, named entity recognition, text summarisation, and question answering. The goal of NLP is to bridge the gap between human communication and computer understanding, allowing machines to process and analyse vast amounts of unstructured language data and facilitate more natural and efficient humancomputer interaction.

Singularity: A hypothetical point in the future where AI surpasses human intelligence, resulting in rapid technological growth and fundamental changes in civilization. The result would be a superintelligence which becomes independent, making its exponential progress irreversible. This could result in a new transhuman era in which humans increasingly interact with superior AI entities. What such machines do depends, crucially, on what goals and values they are programmed with. In such a future, parliaments will vitally important as they manage the complex ethical and societal implications of such advanced technologies.

Training data: Data used to train the algorithm or machine learning model. It is the basis on which AI systems can be developed. Training data has to be generated by humans from their work or from their past. The better the quality of data the more accurate the output of AI systems. The public sector, including parliament, would need a unified approach to data management, which would benefit the use of AI systems. Be aware that training data could be biased or protected by IP rights.



List of abbreviations

AGI	Artificial general intelligence
AI	Artificial intelligence
AKN	Akoma Ntoso
CAI	Committee on Artificial Intelligence
CAO	Chief Administrative Officer
СНА	Committee on House Administration
CIP	Centre of Innovation in Parliament
DPO	Data protection officer
FAIR data	Findable, accessible, interoperable, and reusable data
FRIA	Fundamental rights impact assessment
GDPR	General Data Protection Regulation
GenAl	Generative artificial intelligence
GPAI	Global Partnership on Al
GPT	Generative pre-trained transformer
HIPAA	Health Insurance Portability and Accountability Act
НРС	High-performance computing
International IDEA	International Institute for Democracy and Electoral Assistance
IP	Intellectual property
IPU	Inter-Parliamentary Union
ISO	International Organization for Standardization
LLM	Large language model
MOOC	Massive Open Online Course
MP	Member of parliament
NLP	Natural language processing
OCR	Optical character recognition
PACE	Parliamentary Assembly of the Council of Europe
PII	Personally identifiable information
SDG	Sustainable Development Goal
SWOT	Strengths, weaknesses, opportunities, and threats
UNDP	United Nations Development Programme
WFD	Westminster Foundation for Democracy
XAI	Explainable artificial intelligence

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