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Parliamentary Responses to Artificial Intelligence

While Artificial intelligence (AI) has been developing for decades, recent years have seen increasing attention to its various societal impacts. These impacts range from positive and helpful to harmful and even life-threatening in some cases.

Parliaments have responded to such developments by undertaking various programmes of work. What have they done, and what can Scotland learn from these approaches?

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Introduction

This short review provides a snapshot of the work that various Parliaments around the world have undertaken on AI. It outlines the various approaches adopted by Parliaments and highlights common themes.

In noting the key points for Scotland, it is designed to inform and guide the Scottish Parliament and others, as Scotland considers its own approach to the many opportunities and challenges AI presents.

Key message

The question the Scottish Parliament must ask itself is: are we doing enough on AI? While we are making some progress, there is certainly much more to be done.

AI poses a huge range of challenges, opportunities, and risks. The conversation on AI has started in Scotland, but it needs to go further. It has to explore the complexities and ultimately develop into concrete action.

To ensure we maximise opportunities and mitigate risks, MSPs have a crucial role. It is the Parliament's responsibility to recognise the tools at its disposal and consider carefully how to use them. In taking action on artificial intelligence, MSPs have the opportunity to effect meaningful and positive change for the people of Scotland.

Approach

In conducting the research for this report, Parliament websites were searched for the following information:

- Bills or Acts relating to AI
- Parliamentary committees specifically on AI
- AI related work of other committees
- Sectors AI is or may be used in (e.g. AI and agriculture)
- Parliamentary debates on AI, and
- Any other significant work on AI

Space limitations preclude discussing details of each Parliament's work, so general overviews with illustrative examples are provided.

The rationale for choosing which Parliaments to research were convenience, in that their working language is English, and similarity in terms of parliamentary systems. An exception to the English language criterion was made for Finland as it has a Committee for the Future, similar to the Futures Forum here, and Sweden was included as a relevant comparator to Finland.

Finally, while this review set out to identify the work of Parliaments, notable work conducted by Governments is also included where it is considered relevant.

Partners

Scottish Graduate School of Social Science
Sgoil Cheumnaichean Saidheans Sòisealta na h-Alba

Questions for Scotland

From this work, here are key areas and questions for the Scottish Parliament to consider.

What processes are, or should be, in place to ensure that principle 2 of Scotland's AI Strategy is upheld?

Principle 2 states that AI systems should be designed in a way that respects the rule of law, human rights, democratic values, and diversity. These are laudable goals, but they require significant resources, time, expertise, legislation, and viable enforcement mechanisms if they are to be achieved.

What can be done to assess the validity/claims of AI applications both before and after they are deployed?

Principle 4 states that "potential risks should be continually assessed and managed", but what does this look like in practice? Given the likelihood of AI permeating many sectors, what systems can be put in place which would allow regulators or others to assess the validity of AI applications? This will be necessary to reduce the likelihood of people being mistreated by erroneous, biased, or otherwise harmful AI applications.

What role or impact can the developing human rights framework in Scotland have in relation to AI?

The Scottish Government has been working on a new human rights Bill which would see four UN human rights treaties added to Scots law. The time is now for Parliament to start asking how AI is likely to impact people's human rights and whether our laws are fit to protect them.

How can Scotland ensure children and other vulnerable people are protected from any harmful effects of AI?

While Scotland's AI Strategy contains many ideas for how to protect children, there is very little on how to protect other people with protected characteristics from bias, discrimination, and other harms.

Author

Robbie Scarff is an intern with Scotland's Futures Forum and a PhD candidate at the School of Law, University of Edinburgh. He researches the human rights impacts of emotional AI—systems which attempt to interpret people's internal emotional states via their outward expressions, such as facial expressions, vocal tone, gait, and written text.

Robbie's work focuses on the right to freedom of thought and freedom of expression. He uses interviews and design fictions to investigate expert and non-expert views on emotional AI.

Parliaments in Focus

This section provides an overview of the work on AI undertaken by several Parliaments around the world.

United Kingdom

In the UK Parliament, the All-Party Parliamentary Group on Artificial Intelligence (APPG AI) was set up in January 2017 with the aim of exploring the impact and implications of AI. The work of this group focuses on four key pillars: education, enterprise adoption of AI, citizen participation, and data governance. It outlines an overall vision of a society empowered to seize the benefits of AI and protected against potential risks.

The APPG on AI has also produced a report, 'Embracing the AI Revolution', in which it firstly recognises the "complex nature of AI's impact on the economy and society" and therefore establishes four task forces, one for each of the four key pillars, with specific responsibilities and output objectives.

In June 2017, the House of Lords appointed a Select Committee on AI, "to consider the economic, ethical and social implications of advances in artificial intelligence, and to make recommendations."

The Committee then produced the report, 'AI in the UK: ready, willing and able?', which set out to answer five key questions:

- How does AI affect people, and how is this likely to change?
- What opportunities does AI present, and how can these be realised?
- What risks and implications does AI present, and how can these be avoided?
- How should the public be engaged with in a responsible manner about AI?
- What are the ethical issues presented by AI?

The report was very comprehensive, covering many issues. Conclusions were grouped under headings such as designing AI (access to, and control of, data), developing AI, working with AI, living with AI (impact on social and political cohesion), mitigating the risks of AI (legal liability, criminal misuse of AI), and shaping AI (regulation, assessing policy outcomes, and an AI Code).

The Automated Facial Recognition Technology (Moratorium and Review) Bill, a private member's Bill originating in the House of Lords in 2019, is currently at its second reading in that House. This Bill relates to a specific use of AI which led to some controversy and opposition from the public when trialled by police.

The topic of AI was also debated in Westminster in October 2021, with a focus on the impact of AI on the economy and society. As with other debates discussed below, a key concern was how AI will change work and lead to job losses, as well as concern over AI's impact on education, the democratic process, and military applications.

Scotland

The topic of AI has been raised in the Scottish Parliament on numerous occasions, with the Scottish Government responding to several written questions on the subject. These have primarily focused on two key areas, health and the economy, with questions on the role of AI in the NHS recovery plan, in monitoring adverse COVID-19 reactions, the impact of AI on the economy, and how to ensure AI increases employment opportunities in Scotland.

There have been two debates on AI in the Scottish Parliament. The first debate, in 2018, was initiated by an individual backbench MSP. Key points raised included concern over the impact AI could have on the economy and labour market, that the education and skills system must adapt and that there is a need for transparency and robust ethical and governance frameworks.

In the debate, the Scottish Government was encouraged to develop an AI strategy, which it has since done. Many contributions were similar in that they recognised the need to exploit opportunities while being aware of and minimising potential risks posed by AI.

The second debate, in 2019, was introduced by the Government, and focused on the opportunities AI could provide for the Scottish economy and society. The motion, which passed, recognised the potential of AI to disrupt every sector of society, as well as improve economic, environmental, and social wellbeing if it is underpinned by a strong ethical framework.

The motion also noted that Scotland could be an international leader in AI in a way which safeguards citizens' rights, brings new jobs, and provides fair work.

Finally, the Scottish Government has worked with numerous partners to develop Scotland's AI Strategy, which has a guiding vision that, "Scotland will become a leader in the development and use of trustworthy, ethical, and inclusive AI."

The strategy sets principles and practices for AI in Scotland (the principles are discussed further below), as well as three key actions: establishing collective leadership, creating the foundations for success, and building an AI powerhouse.
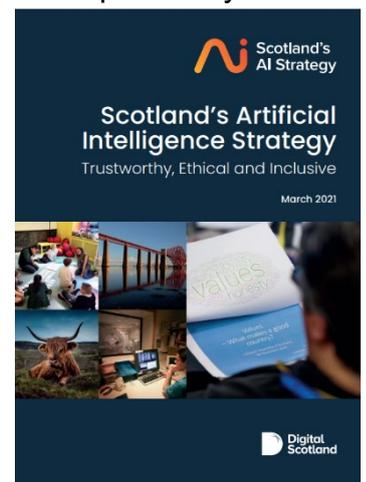
Northern Ireland

In Northern Ireland, perhaps due to disruption to the functioning of the Assembly, there has not been much work on AI. In 2021, in response to a written question, the Minister of Finance stated that "given the advances in technology, my Department will be developing a strategy to determine how best new technology, such as Artificial Intelligence and Robotic Process Automation, can support the NICS and the delivery of public services".""

Wales

In Wales, AI has been discussed in various pieces of work while not being the primary focus.

For example, the Future Trends Report (2017), produced by the Welsh Government, mentions AI under a more general discussion of technological factors likely to impact Wales, particularly the economy and labour market.

Similarly, the Senedd's Research Service produced a research article, also looking at the impact of the fourth industrial revolution on the Welsh economy, which refers briefly to AI.

The Economy, Infrastructure, and Skills Committee produced a report on Industry 4.0 - the future of Wales (2018), in which they recommended that the Welsh government "ensure Wales is the provider, not just the consumer of emerging technologies."

Finally, the Welsh Government produced a "Digital Strategy for Wales", which mentions AI numerous times, specifically AI's ability to deliver savings, spare people from repetitive tasks, and generally provide "significant benefits for Wales' digital economy."

European Parliament

The European Parliament is certainly one of the most active in the world on the issue of AI. This overview presents the different types of work and provides a flavour of what such work focuses on.

The EU has put forward a proposal for a regulation on AI, the AI Act. This wide-ranging piece of legislation is the first attempt to comprehensively regulate AI in the world. It applies a system whereby specific uses of AI are categorised according to the level of risk they present (unacceptable, high, limited, and minimal).

The process just to get the proposal to its current stage has been long and highly contentious, demonstrating the diverse range of positions among stakeholders in relation to regulating AI.

The European Parliament established a special committee, the AI in a digital age committee (AIDA) in June 2020. The role of AIDA was to "analyse the future impact of AI on the EU economy and its contribution to business value and economic growth, investigate the challenges of deploying AI, and analyse non-EU countries' AI approach."

The AIDA Committee produced a report 'on artificial intelligence in a digital age' (2022) which underlines that AI: will have a significant impact on society, will lead to global competition, and may be used to manipulate, and that a clear regulatory framework and political commitment are required.

AIDA also produced 11 working papers on issues such as AI and the future of democracy, bias, health, and the labour market.

Broadly speaking, the work produced by the European Parliament is categorised as opinions of committees, "at a glance" documents which are very short overviews of topics, briefings, and more in-depth studies.

Regarding opinions of committees, the Committee on the Internal Market and Consumer Protection have been especially active, publishing opinions on AI in criminal law and use by police, AI and intellectual property, and on the civil liability regime for AI.

The European Parliament's think tank produce "at a glance" documents, often at the request of committees. Regarding AI these have covered topics such as AI in criminal law, an EU framework for AI, AI and elections, as well as a review of recent studies on AI.

Briefings provide a more detailed explanation of topical issues and in terms of AI have recently focused on AI and: economic impacts, legal and ethical issues, socio-economic effects, transport, and the cultural and creative sectors. There have also been briefings dealing with more fundamental topics such as how AI works and why it matters.

Finally, studies go into much more depth on issues and are again often requested by committees. Studies have covered such wide-ranging issues as AI and urban development, AI governance as a new EU external policy tool, improving working conditions using AI, the impact of law enforcement using AI on fundamental rights, and the opportunities AI provides.

Republic of Ireland

In the Republic of Ireland, AI has been a recurrent issue in recent parliamentary debates in the Oireachtas, with MP's asking many questions of ministers relating to AI and a variety of other topics, including agriculture, education, and policing.

The Oireachtas Library and Research Service produced a short research note comparing and rating the action plan presented in the Irish Governments National AI Strategy (2021) to that proposed for EU Member States in the European Commission's Coordinated Plan for AI.

Finland

The Finnish Parliament's Committee for the Future serves as a think tank on issues of futures, science, and technology policy, and has recently undertaken some work on AI. For instance, in its work preparing a statement on the EU's strategic foresight, it hosted a hearing in which the opportunities and threats posed by AI were discussed.

The Committee has also published a report titled 'AI Solutions Today and in the Future' (2022), as well as 'Towards a better future: technological opportunities and threats to the promotion of sustainable development' (2021). The latter report considers how technology can help achieve the UN Sustainable Development Goals, with AI explicitly addressed in sections on the automation of work, self-measurement and crowd-sourced data, and independent learning verified by AI.

Finally, the Committee for the Future published a review in 2014 which describes a unique model for anticipating the progress of technology development and applies said model to many technologies, including AI, which may be useful for other Parliaments.
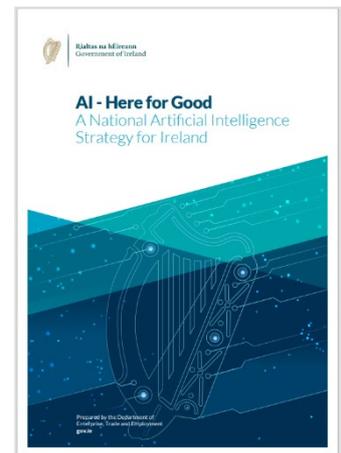
Sweden

The Swedish Parliament's Education Committee provided a statement [in Swedish, which Parliament approved] in response to the European Commission's White Paper on AI which essentially agreed that many benefits of AI are possible, if the risks are managed properly.

The Digitalisation Commission produced an interim report [in Swedish] in 2015 looking at the future of Sweden through the lens of the possibilities of digitalisation.

The National Audit Office's 2020 report [in Swedish] examined automated decision-making in central government, concluding that such decision-making is "effective, but control and follow-up are lacking".

USA

In contrast to many other Parliaments, the number of proposed Acts relating to AI introduced to Congress is relatively high, with Acts relating to AI and a wide range of other issues. These Acts can be generally categorised as relating to AI and security or advancing American AI.

Regarding the former, there are Acts such as the AI for the Military Act (2021) and the National Security Commission AI Act (2018).

For the latter, there are Acts such as Advancing American AI Innovation Act (2021), the National AI Research Resource Task Force Act (2020), and the Growing Artificial Intelligence Through Research Act (2019).

All these Acts are at the 'introduced' stage of the legislative process, thus at present they provide an indication of the concerns of some members of the US Congress.

There have also been Resolutions passed by the House, such as H.Res.153 which supports developing guidelines for the ethical development of AI, and H.Res.1250 which notably states that "It is the sense of the House of Representatives that the United States should take a global leadership role in AI".

Canada

Canada's Library of Parliament has produced short research notes and in-depth research studies on AI. Research notes have focused on COVID-19 and AI and understanding AI from Canadian perspectives. Research studies have looked at autonomous weapons systems, deepfakes, and AI risks and outlooks.

In a meeting of the Standing Committee on Citizenship and Immigration, the Chinook AI system was discussed in terms of it being the potential source of bias against study permit applicants from French-speaking Africa.

In 2017, there was a proposed Act supporting funding for a "pan-Canadian artificial intelligence strategy". It had its first reading in March 2017 but did not progress further.

In 2022, the Standing Committee on Science and Research discussed the use of AI to benefit Canada's economy. The committee acknowledges, as seen herein, that many other countries are producing similar strategies and are keen to explore how to "empower institutions leading in this research so that they compete in these emerging areas."

Australia

In Australia, most work on AI has been led by the Government rather than the Parliament. For example, a Horizon Scanning report, commissioned by the Government, looked at the effective and ethical development of AI, considering issues such as opportunities and challenges, as well as the impact of AI on education, the workforce, human rights, and regulation.

In June 2021, the Australian Government published a national AI Action Plan, setting out a vision for Australia to be "a global leader in developing and adopting trusted, secure and responsible AI". It includes actions the Australian Government is taking to realise this vision and ensure all Australians share the benefits of AI.

As an example of tangible impacts, the Australian Government has provided $5 million in funding for the ARC Industrial Transformation Research Hub for Driving Farming Productivity and Disease Prevention which aims to use AI to improve product quality control.

New Zealand

The Economic Development, Science, and Innovation Committee produced a general briefing on AI in 2019, looking at issues such as data surveillance and privacy, manufacturing, healthcare, agriculture, transport, government, FinTech, and the future of work.

There have also been a couple of petitions raised by MP's regarding AI. One sought to prevent the use of facial recognition AI for processing video footage of the public, while the other sought heavy investment in AI "to create a work-free paradise". Neither of these gathered enough support to be presented to the House of Representatives, but they do indicate at least some interest from MPs in the potential positives and negatives of AI.

The New Zealand Government have produced an Algorithm Charter for Aotearoa which is intended to act as "a commitment by government agencies to carefully manage how algorithms will be used to strike the right balance between privacy and transparency, prevent unintended bias, and reflect the principles of the Treaty of Waitangi."
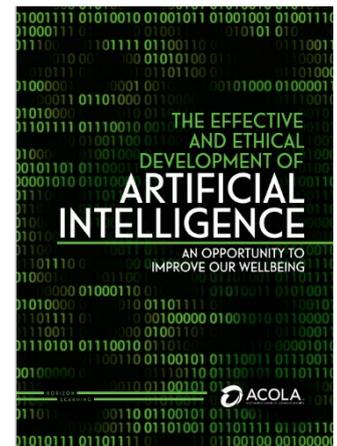
Findings

This section highlights key themes and findings from the information above.

Options available to Parliament

Parliaments have three main options available to address the challenges AI presents. Such options differ in:

- Their range of possible impacts
- Their substantive focus
- The target of each option
- The resources required to implement them

Below is a summary and examples of the various options Parliaments have to address AI.

How can Parliaments address AI?

LEGISLATE

The EU's AI Act provides an example of a Parliament addressing AI comprehensively in order to address as many of the potential risks as possible but do so in a proportional way.

The Bill to prohibit the use of facial recognition and review its use in the UK is an example of the potential role Parliaments can play in addressing specific and particularly problematic uses of AI.

SCRUTINISE

Having a dedicated AI committee, such as the UK's Select Committee on AI, or a committee with a specific role in assessing AI, such as Finland's Committee for the Future, provides a focal point from which Government action on AI can be scrutinised.

Research, conducted by Parliamentary library or research services, can be a crucial tool with which to support Parliamentarians' scrutinising role. AI is notoriously tricky to understand even for AI practitioners, and it can be applied in many different contexts. It is therefore crucial that parliamentarians are given the right information to allow them to make well-informed decisions.

DEBATE

Parliamentary debates can serve various useful roles. Firstly, they allow public concerns to be raised by representatives in a high-profile setting. Secondly, parliamentarians can make the public aware of issues they feel warrant attention. Finally, parliamentarians can raise issues with the Government, who would generally be expected to provide a response.

Conducting futures oriented/horizon scanning work plays a crucial role in supporting Parliaments to be suitably prepared for the challenges AI will present. MPs must make important decisions now which anticipate future scenarios. Such decisions are best made on reasonable, level-headed assessments of possible outcomes, rather than the wild speculation and hype which unfortunately pervades much of the media coverage of AI.

Commonly used options

Of these options, some are more common than others. For example, many Parliaments, through their parliamentary library or research services, have conducted research on a wide variety of issues relating to AI.

National AI strategies are also common, and Parliaments have a role here in scrutinising them, something which conducting research may assist with.

Many states are also investing heavily in AI, and Parliament again has a role in scrutinising such funding decisions.

Finally, parliamentary debates on AI are a common approach which can raise awareness of important issues, both to the public and to Governments.

Rarely used options

Other options are less common, such as having a dedicated AI committee, banning specific uses of AI (or at least arguing for bans), and conducting horizon scanning/futures work to identify crucial developments and decisions which will have to be made on the appropriate use of AI.

Common themes

Some common themes emerged in Parliaments'/Governments' approaches to dealing with AI.

Firstly, the impact of AI on the economy and labour market appears to be a primary concern, with states eager to maximise the opportunities AI presents.

This leads to the second point, which is that there is much discussion of maximising opportunities while minimising risks. This is appropriate, but it raises the question of the degree to which states are willing to forgo opportunities in the face of risks to their citizens or others.

Thirdly, there are varying levels of concern over contentious uses of AI, such as facial recognition. Another common theme is the huge range of sectors in which states are either using, or intend to use, AI.

Finally, in debates and national strategies alike, there is a desire for each state to be a "global leader" in AI, which indicates that many states view the AI sector as being very open with lots of opportunities.

Differences in approach

There are also some differences in approaches. For example, some states seem eager to quickly establish themselves as "global leaders" in AI, whereas some states are taking a more cautious, considered approach by conducting a lot of research and considering the risks more thoroughly.

Another difference is in whether controversial, or otherwise, uses of AI have been banned or a ban proposed.

Finally, there is considerable difference in the amount of legislation passed by the various states evaluated. Overall, the picture is generally a patchy one, with states taking a variety of different approaches to dealing with the challenges AI presents.

Questions for Scotland

From this work, here are key areas and questions for the Scottish Parliament to consider.

What processes are, or should be, in place to ensure that principle 2 of Scotland's AI Strategy is upheld?

Principle 2 states that AI systems should be designed in a way that respects the rule of law, human rights, democratic values, and diversity. These are laudable goals, but they require significant resources, time, expertise, legislation, and viable enforcement mechanisms if they are to be achieved.

What can be done to assess the validity/claims of AI applications both before and after they are deployed?

Principle 4 states that "potential risks should be continually assessed and managed", but what does this look like in practice? Given the likelihood of AI permeating many sectors, what systems can be put in place which would allow regulators or others to assess the validity of AI applications? This will be necessary to reduce the likelihood of people being mistreated by erroneous, biased, or otherwise harmful AI applications.

What role or impact can the developing human rights framework in Scotland have in relation to AI?

The Scottish Government has been working on a new human rights Bill which would see four UN human rights treaties added to Scots law. The time is now for Parliament to start asking how AI is likely to impact people's human rights and whether our laws are fit to protect them.

How can Scotland ensure children and other vulnerable people are protected from any harmful effects of AI?

While Scotland's AI Strategy contains many ideas for how to protect children, there is very little on how to protect other people with protected characteristics from bias, discrimination, and other harms.

Key message

Ultimately, the question this Parliament must ask itself is: are we doing enough on AI? While we are making some progress, there is certainly much more to be done.

AI poses a huge range of challenges, opportunities, and risks. The conversation on AI has started in Scotland, but it needs to go further. It has to explore the complexities and ultimately develop into concrete action.

To ensure we maximise opportunities and mitigate risks, MSPs have a crucial role. It is the Parliament's responsibility to recognise the tools at its disposal and consider carefully how to use them. In taking action on artificial intelligence, MSPs have the opportunity to effect meaningful and positive change for the people of Scotland.