Rialtas na hÉireann
Government of Ireland

National Youth Assembly on Artificial Intelligence
Report

Contents

Abbreviations

AI   Artificial Intelligence

AR   Augmented Reality

DCEDIY   Department of Children, Equality, Disability, Integration and Youth

DETE   Department of Enterprise, Trade and Employment

YAG   Youth Advisory Group

Definitions

An AI system is a machine-based system that is capable of influencing the environment by producing an output (predictions, recommendations or decisions) for a given set of objectives. It uses machine and/or human-based data and inputs to (i) perceive real and/or virtual environments; (ii) abstract these perceptions into models through analysis in an automated manner (e.g. with machine learning), or manually; and (iii) use model inference to formulate options for outcomes. AI systems are designed to operate with varying levels of autonomy.

-   [OECD Resources on AI](#)

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Executive Summary

On the 12th of October 2022, a National Youth Assembly on Artificial Intelligence was convened by the Department for Children, Equality, Disability, Integration and Youth (DCEDIY) and the Department of Employment, Trade and Enterprise (DETE) and facilitated by the National Participation Office (NPO). Forty-one young delegates, aged 12-24 years, from across Ireland gathered at Tangent, Trinity's Ideas Workspace, Trinity College Dublin. Based on their deliberations in workshops and plenary session, the delegates voted on 12 recommendations to make to the Minister of State for Trade Promotion, Digital and Company Regulation at DETE Dara Calleary, TD, for consideration in the future policy direction of Artificial Intelligence (AI).

Overview of messages from the Youth Assembly

The National Youth Assembly delegates focused on four strands from AI - Here for Good: National Artificial Intelligence Strategy for Ireland. Within these four strands, they identified and discussed the key issues and challenges that they felt AI presents for young people in Ireland. Across the four strands, the delegates' discussions covered a range of issues captured in six themes below. At the end of their discussion, the delegates voted on 12 recommendations within the four strands which they presented to the Minister (see Figure 1a and Figure 1b below).

Trustworthiness of AI/Regulation and Legislation
In Strand 1: AI and Society and Strand 2: Governance and Trust much of the young people's deliberations centred on the trustworthiness of AI. They were concerned about data protection and the possible misuse of AI. They identified the need to question who creates the AI, who buys the AI, and how it is being used. Some delegates were concerned that AI might go "too far", with one group referencing suggestions that innovators were considering developing "chips in the brain". The over-reliance and possible misuse of AI to share "misinformation" (e.g. bots driving election campaigns, troll farms, robot callers) was also a cause of concern.

Delegates felt that, when used correctly, AI can be a valuable source of information for Government and private organisations. They felt that if people had confidence and trusted AI, they would be more likely to use it, which would increase the net benefit from AI. Many of the actions to address trustworthiness involved a move to protect data and to regulate the use of AI. These included:
• Ensuring regulations protect the entire population, especially children.

- The creation of a regulatory body and Ombudsman for AI.
- Regulation to limit the powers of social media companies.
- Protection of data (e.g. what data can be collected and tackling violations of privacy).

Other suggestions for Government included:

- The continual assessment of the efficacy (and safety) of programmes and ensure they are updated as necessary.
- Investment in programmes combating toxic social media trends.
- Address the concerns over the trustworthiness of AI including awareness raising and education of the wider public.
- Restrictions to address the inappropriate use of facial recognition.
- More protection against cyber-attacks on a national scale.
  - Have a think-tank and create backup protection systems of critical infrastructure which could be vulnerable to foreign forces.

Legislation and Regulation

Delegates were concerned about the potential misuse of AI and its regulation across the strands (e.g. too little, too much, or unclear legislation). Some were concerned that regulation may not consider everyone. One group discussed how effective policies have the potential to allow for the safe use of AI and to maximise the positive effects of AI. They felt that regulations should be 'just and fair' and recommended that the Government refer to the UNCRC (United Nations Convention on the Rights of the Child) and the Universal Declaration of Human Rights. However, the delegates felt it was important that the Government publicise AI legislation using an understandable format which is "free from legal and technical jargon", and to have regular reviews to identify what is and what is not working. Another group suggested that the wider public should be consulted when developing such regulations and laws.

Equality and Inclusion

Delegates described how AI could be used positively to create more equality and inclusion in society. For example, the young people described how AI can be used to improve healthcare by identifying disease earlier, by predicting anomalies through screening, in diagnosing diseases, and advancing treatments and medicines. They also described how AI can help people with disabilities (e.g. self-driving cars, computer software). Part of the discussion at one table centred on how AI might help predict patterns of homelessness or improve care provision for the elderly (e.g. monitoring, etc.). The potential of AI to connect people and communities (particularly more isolated and vulnerable communities) was also discussed.

They were concerned about the potential for unequal (too much or too little) data collection on more marginalised people. They also felt there was a risk that some people may be more susceptible to privacy infringements.

In one group there was concern that overuse/dependency on AI may have negative consequences on children's environments. Similarly, whilst AI was described as offering benefits to life and work, delegates were concerned that some people might be left behind, particularly people living in more rural areas with less access to AI and associated technologies.

Education and Training

Across the strands, delegates talked about the potential of AI to improve access to education and training. However, reflecting on some of their concerns about privacy and misuse of AI technologies, delegates felt that all of society needed to be informed about and skilled-up in the safe use of AI, and how to use it in moderation. Some felt it was important to teach people about the positives of AI as well as its pitfalls. Lower levels of knowledge were described as creating a barrier to using AI. To address this risk, delegates suggested that the Government deliver education programmes to increase society's awareness and knowledge of AI. During their discussions on AI in Society, delegates described how AI can benefit school-based education.

They discussed how AI can help with:
- Learning languages (e.g. Duolingo computer software).
- The use of laptops and technology (also referring to the replacement of heavy schoolbags).
- Tailored education based on individual student assessments/needs.

Reflecting on these potential benefits, in their recommendations for Government, delegates called for more education on AI in schools as well as the increased use of available technologies in delivering education. Delegates suggested providing education to all age groups, e.g. primary school, second and third level. Some felt it was important to have this integrated within the curriculum as a key subject, but emphasised the importance making it well funded, relevant, and ongoing.

In Strand 6: AI Education, Skills and Talent, delegates expanded on ways in which school-based education might be improved to address the inequities in provision due to lack of resources (e.g. technology/internet) and/or teachers' knowledge/skills. Suggestions to address this included a revised curriculum informed by AI, with funding for resources and training for teachers. Some suggested having AI as an exam subject. The importance of keeping the workforce upskilled for future AI developments was also discussed. To this end,

one group suggested integrating AI with university-level education to allow for greater options for the future.

Job demand/employment

Across all four strands delegates raised concerns about AI's potential impact on employment opportunities with negative consequences for wider society. They were concerned about job losses and redundancies (particularly for lower paid 'unskilled' workers). One group were concerned about damages to interpersonal relations and industrial relations. Some delegates were concerned that AI might be adopted too quickly or that the adoption of AI would result in loss of traditional skills and cultural heritage. They were also aware that AI and automation can benefit the working environment. There was a consensus that AI can provide greater efficiencies (e.g. speed up administration, less time wasted and eradication of human error, and can be used for more menial and repetitive tasks). Delegates also appreciated the role of AI in undertaking more complex tasks.

The young delegates felt that AI offers increased employment opportunities and greater flexibility in the workplace:
- A new employment sector with increased opportunities.
- Providing more opportunities for working from home.
- Help finding jobs based on your skills.
- Finds solutions for businesses.
- Increases the standard of living.

However, it was suggested in one group that displacement of jobs could create opportunities for more meaningful employment. This group felt that, with support from Government (e.g. via Universal Basic Income, reskilling etc.), this transition from menial tasks might result in people seeking opportunities for more meaningful employment when 'Intrinsic motivation will come into play'. One group suggested that, to counteract the potential loss of jobs, people would be encouraged to train for jobs or seek work in sectors with a lower risk of being replaced by AI automation.

Transport planning

In Strand 4: AI Serving the Public, delegates discussed the poor transport infra-structure in Ireland. Delegates discussed how current transport provision in Ireland is not fit for purpose, with a lack of integrated planning resulting in insufficient transport links and convoluted routes. They appreciated some of the current benefits of AI in planning journeys. The young people felt that AI could help with the planning of transport and, with self-driving buses, AI

could help make transport available 24/7. Improved transport would increase productivity and improve society. They suggested that AI is used to identify public transport needs and to devise more efficient routes and timetables.

Figure 1(a): Summary of the 12 Recommendations for the Four Strands.

Strand	Recommendation
Strand 1: AI and Society	Create legislation free from bias that makes AI accessible to all, to ensure diversity and the upholding of human rights. Encourage this across all Government departments who use AI.
	Establishment of an Ombudsman/Regulatory body similar to the Data Commission with oversight of AI adoption, development and deployment.
	Government should fund accessible programmes where young people support others to use AI correctly e.g. groups with older people to educate and inform them on AI (what it is, and how to use it).
Strand 2: Governance and Trust	Ensure that equality and diversity is central in policy making by using a human rights approach which fulfils the governments human rights obligations. Use human rights approach to ensure equality and diversity in policy making.
	Education in AI should be included in all education settings from primary schools through to 3rd level. It should be a key subject which is well funded, relevant and ongoing rather than a one-off talk. Education should also be provided to young people through other avenues such as sport and youth clubs.
	The government should provide a universal basic income for all. Pay differences should be based on workloads and the stress of the work. Support should be in place for people whose jobs are displaced by AI to ensure that people are supported as they retrain to work in other roles.
Strand 4: AI Serving the Public.	There should be an investment in technology and hardware used by public services to bring up the standards across the whole country so that access is more widely available to all. Utilize public buildings to upskill communities and conduct surveys and research to identify gaps, e.g. in underdeveloped and rural areas.
	AI to be used to predict pressure points to improve public transport and planning networks for traffic management.

	Create a supportive infrastructure for immigrants to enable them to have access to services, e.g. online systems such as banking, personal medical information and other personal information.
Strand 6: AI Education, Skills and Talent	All generations of society should be educated on AI. • This should take place inside and outside formal education.
	Help communities develop an understanding of AI and skills in AI. Use a balance of traditional and new methods of delivering courses both in-person and online.
	Create a better trained workforce to help the economy. • Government to provide free access to free courses on AI for people to work in AI environments. • Have AI as a new subject in school.

Figure 1(b): Youth Friendly Summary of Recommendations

1. Full Report: Messages from the National Youth Assembly

Strand 1: AI and Society

Overview of themes

During their conversations on this strand, delegates' discussion captured four themes:

- Equality and Inclusion.

- Trustworthiness of AI and the need for regulation.

- Changes in job demand and employment.

- Education.

Concerns

Delegates were concerned about the potential for inequalities resulting from the methods used to develop AI systems. They were worried about 'under collection' (and 'over collection') of information on more marginalised people.

They were particularly concerned about the trustworthiness of AI. These concerns centred on:

- Trust.
  - Who to trust with the power?
  - How to monitor AI?
  - How far will AI go?

- Data protection.
  - Breaches in security of healthcare-related data.
  - Lacking data protection frameworks.
  - Data misuse by private companies.
  - 'Bots' have been used to drive misinformation campaigns.
  - Insecure data.
  - How to identify biased algorithms.
  - Violation of privacy, e.g. intimate pictures.
  - Use of facial recognition.

"HSE vulnerable to cyberattacks."

They were worried that people who have less knowledge and awareness of AI may be more susceptible to privacy infringement and abuse of AI.

> "A population with less knowledge of AI is more likely to have an aversion to it but also be may also be less cautious when sharing their personal data."
>
> "AI will incur shifts in industry as in certain roles AI can perform the same tasks more efficiently more efficiently than human employees."

Delegates were also concerned about the potential impact of AI on jobs and employment:
- Too quick to replace something where human intervention is needed.
- Potential loss of jobs.
- May cause loss of specialised skills and knowledge.

> "A human can never be as good as AI. AI don't ask for higher wages healthcare etc."
>
> "Damage to interpersonal relations due to AI taking over jobs damage to industrial relations."

Some were concerned that without regulation AI may go too far.

> "Goes too far for example Elon Musk chip in the brain."

Benefits/Potential of AI for society
In this strand, delegates outlined the potential benefits of the use of AI for society including:
- Increased speed in processing.
  - New and more improved methods for scientific research.
  - Reduction in human error.

- Improvement in healthcare.
    - Treatment of cancer.
- Addressing need/inequality.
    - Meeting the needs of marginalised people, e.g. help predict housing needs address homelessness.
    - Helping disabled people, e.g. self-drive cars, computer software (speech to text). Allowing for greater independence.
    - The potential of AI to stop some forms of discrimination.
- Employment.
    - Automation of menial tasks/jobs and improve quality of life.
- Education.
    - To provide specialised individual learning programmes and tools.
- To tackle climate change.

"Automation can take out menial jobs and improve quality of life."

"New and more improved methods for scientific research could yield findings with positive consequences for wider society."

Some felt improved governance and regulation of AI would result in greater use of AI and thus more benefits for society.

"Use of AI services encouraged if people are confident in regulation protocols."

Suggestions of actions
Delegates' suggestions of ways to address their concerns included:

- Equality and inclusion.
    - Data collection could be used to encompass more marginalised people.
    - Communicate with the wider public, via social media platforms, to ensure consistency with data protection policies.
    - Facilitate technologies for disabled people, e.g. use of self-driving cars for blind people.
- Regulation in use of AI to increase the trustworthiness of AI.

- Regulate what data can be collected.
  - Creation of a regulatory body and an Ombudsman for AI.
  - Create laws that encompass the wide spectrum of industries and purposes for which AI may be used.
  - Adequate regulations to protect the entire population, especially children.
  - Limit the powers of social media companies.
  - Tackle violations of privacy.
  - Assessment of the effectiveness of programmes/regulations in place so that they can be updated as necessary.

- Employment supports.
  - Put supports in place to address potential job losses.
  - Implement training programmes and/or payment schemes e.g. Universal Basic Income to encourage transitions to different careers or jobs.
  - Use profits from automation to provide funding to help 'upskill' workers.

- Education.
  - Education and awareness raising of the benefits and pitfalls of AI.
  - Implement AI education programmes across all levels of society.
  - Educate the wider public on regulations and laws.

"Create laws encompassing the wide spectrum of industries/purposes which AI may be used."

"Find alternative employment for workers who lose their jobs due to AI or upscale those same workers through publicly funded programmes."

"Make it accessible to the homeless/elderly."

Strand 2: A governance ecosystem that promotes trustworthy AI

Overview of themes
Delegates' deliberations on this strand echoed some of the messages from Strand 1, and included the following themes:

- Equality and inclusion.

- Trustworthiness of AI.

- Legislation and regulation.

- Changes in job demand / employment.

- Education and awareness raising.

Concerns about AI
Reflecting their concerns for Strand 1, delegates discussed the potential of some people or communities missing out, e.g. people living in more rural areas with poor access to broadband.

The dominant concern within this strand was potential misuse of AI.

- People using algorithms for their own selfish goals, e.g. extorting money, influencing political opinions.

- Algorithms may be biased/manipulated to distort results and further a specific agenda.

- Data input may be collected erroneously.

- Excessive surveillance.

Delegates had some concerns about the governance eco-system and trustworthiness.

- Over-zealous legislation which limits the freedom to create AI.

- Lack of trust in Government policy (particularly in relation to public surveillance).

Some were concerned about the longer-term implications of decisions made.

- No going back.

Benefits of AI
In their deliberations on this strand, delegates discussed how, when used correctly, AI has the potential to be a valuable source of information for both government and private

organisations. With effective policies that allow for the safe use of AI (and minimising negative outcomes), AI was described as having the potential to:

- Improve quality of life.
    - o   Afford more free time via automation.
- Improve education delivery.
- Employment and job opportunities.
    - o   Creating jobs for people who want to have a positive impact.

Suggestions of actions

Delegates' suggestions for actions to address their concerns and to maximise the potential benefits of AI mostly concentrated on approaches to legislation and policy:

- Refer to the UNCRC and Declaration of Human Rights.
- Ensure AI is just and fair.
- Exercise transparency and integration.

A dominant message within this strand was the need to have regulation and scrutiny:

- Introduce an Ombudsman for AI.
- Update laws ad-hoc.
- Survey at regular intervals to identify what is and isn't working.

> "Special versus standardised laws - one law will not fit all so they need to be able to cover a wide variety of topics."

Some called for restrictions in the use of AI:

- Implement restrictions, e.g. laws banning inappropriate facial recognition.
- Put preventive laws in place before AI is developed not afterwards.

Actions to support employment and opportunities were also suggested:

- Encourage people to work in sectors where they are less likely to be replaced by AI automation.
- Include AI as part of the school curriculum.

Similar to the previous strand, delegates called for action to alert and educate the public on Government policies and regulations on AI:

- Publicise government legislation in an understandable format, not full of legal/technical jargon.
- Teach people of all ages about AI so they understand its uses, dangers and potential benefits.
- Create programmes to assist in delivery of AI education and increase accessibility.

Strand 4: AI serving the public

Overview of themes
Four themes dominated the discussions within this strand:

- Trustworthiness.

- Public services.

- Equality and inclusion.

- Job loss/employment.

Concerns about AI for the public
Echoing the discussions in the previous strands, delegates concerns on AI for the public centred on its trustworthiness and its potential impact on wider society. Their concerns included:

- Trustworthiness.
  - Concerns about transparency.
  - Reliability/Quality of the available data.
  - Misuse of AI (e.g. used to influence voting).
  - Bias (intentional and unintentional).
  - Lack of empathy/human judgement.

"Lack of nuance/context."

"One small mistake could affect the lives of a huge amount of people."

"Only as a good as the data it is given which might only serve some sectors of society."

"Misuse by government bodies not acting for public good."

Other concerns included:

- AI exacerbating social inequalities.
  - Not having facilities/systems for different communities, e.g. immigrants.
  - Older generations not understanding/not being educated about AI.
  - Prioritising one group over another.
  - Negative profiling, e.g. people of colour.

- Cashless society would not be accessible by different groups, e.g. elderly people, homeless people, traveller community.
- Job applications/discrimination based on past practices.

- AI impact on employment.
  - Loss of jobs/fear of losing jobs.

Benefits of AI serving the public

Delegates identified several ways in which AI could benefit society:

- Public services.
  - Better use of data to allocate resources.
  - Improved processing times and more efficient administration.
  - Improved infrastructure.
  - Improved communication- standardised data and processing between departments.
  - Potential to connect public services.
  - Improved distribution of benefits.

- Healthcare.
  - Diagnostics.
  - Remote surgery.

- Transport.
  - AI to can be used to plan transport.
    - Better transport can increase productivity.
    - Safer transportation. Fewer transfers.

- Education.
  - Correct overseeing of tests (teachers marking exams – as long as it's tested).
  - Tailor education to students' needs.
  - More interactive approaches.
  - Can reach more students, e.g. online.

- Employment.
  - AI and remote working create opportunities for decentralisation (if good internet and remote working supported).
  - AI might create new jobs and help workers in many sectors.
  - Can be used for menial/dangerous jobs.
  - Increased opportunities, e.g. people can find employment in roles that wouldn't be possible without AI assistance.

- Inclusion.
  - AI can be used to help people with disabilities to access things/cures for deafness.

- Society.

- AI can be used to search for criminals or missing people via image processing or facial recognition.
- More connection for people who share the same interests.
- More inclusion for people who are differently abled.
- May allow rural communities to be more sustainable.

"AI could produce very valuable and high-quality public services e.g. improved healthcare."

"Trends and patterns in diseases."

"Seeing things doctors don't."

"Education can be offered to a greater number of students."

Suggestions of actions

Several of the suggestions of actions to address delegates concerns echoed suggestions emerging from the other three strands and included action to improve the trustworthiness, safety and security of AI, e.g. create a Government Department for AI/have an Ombudsman for AI.

Within this strand, delegates discussed the importance of taking action to ensure AI benefits all of society.

"Society means everyone."

"Ensure any suggested advancements take into consideration under-represented groups. Not everyone has access to bank account, internet."

"Have legislation that protects the 'at risk' in society."

Delegates' discussions centred on the potential of AI to improve public services and suggested actions to achieve this:

- Connected public services.
    - Government wide implementation of AI.
    - Investments into technological developments.

- o Invest in hardware and update systems. Try integrating AI with older systems.
- Transport.
  - o Use AI to identify public transport needs and devise more efficient routes and timetables.

"Data obtained from traffic management may subsequently be used to predict e.g. peak times and adjust schedules accordingly"
"AI to be brought into public services e.g. healthcare, education etc."
"Integrate modern AI-based systems with more antiquated systems"

Delegates made suggestions of ways to use AI to promote greater inclusion of the more marginalised in society. They also suggested conducting research to identify potential job loss due to AI and to create opportunities for upskilling the workforce.

People with disabilities.

- Use AI to improve accessibility.

"Have supportive education for immigrants and other nationalities (for English and personal use)"
"Make AI-driven tech available to those with disabilities"

Strand 6: Education/Training for all

Overview of themes

- Equality and Inclusion.
- Education and training.
- Changes in job demand and employment.

Concerns

Reiterating some of the delegates' concerns from the previous strands, in their discussions within this strand, delegates talked about unequal access to resources and information.

- Unequal access to education training about AI. Unable to benefit from the positives from AI.
- Unequal access to resources e.g. technology/access to broadband.

"Uneducated will be 'left behind'"

With the formal education settings, delegates were concerned about access to resources within schools and also discussed lack of trained staff and lack of standardisation in provision.

- Untrained teachers, lack of skill / knowledge.
    - Lack of understanding of benefits of AI.
    - Not skilled in use of new technologies.
- AI not suiting different learning styles.
- Insufficient resources in school e.g. technology/internet.
- Inequities by school type (private/state funded).

Similar to previous strands, delegates also discussed trustworthiness of AI and possible changes in employment and how some jobs might be negatively impacted by the adoption of AI.

- Data safety.
- Loss of jobs to due adopting of AI.
- Uncertainty in future employment.
- Loss of more traditional skills and knowledge.
- Lack of education/preparation for changes in workforce.

Benefits of AI education

Delegates identified several benefits from AI education including.

- Mitigating the fear and confusion surrounding the future of AI technology.
- Improved work and research opportunities.
  - More tech 'fluent' population.
- Helps people reach their potential.
- Schools.
  - AI helps teachers and students access information and learning tools.
  - Can be adapted to different learning styles.
  - Remote and online education.
  - Online books replace expensive (and heavy) books.
  - Online assessments.

Within this strand, delegates also discussed the wider benefits of AI, underlining the importance to the wider communities' awareness of such technologies.

- Allows for more connections with online groups with shared interests.

Within the workplace, delegates talked about some of the innovations and technologies that can allow for more creative industries. They talked about how AI benefits the workplace.

- Difficult tasks are made easier.
- Can provide guidance on future carers and education.
- Improved opportunities for work and research.
- Education and training can create a more 'tech fluent' population.

Suggestions of actions

Delegates' discussions on actions within this strand mostly centred on the delivery of school-based education. Their suggestions included:

- Development of a more 'informed' curriculum involving AI.
  - Introduction of AI as part of the school curriculum.
  - Consistent teacher training.
  - Equitable funding distribution across all schools.
  - Access to technology and broadband as a pre-requisite in all schools before teaching AI.
- Delivery of AI education.
  - Use of 'blended learning' with E-learning platforms.
  - Use of more engaging methods e.g. creative coding.
  - Facilitate accessible AI teaching adapted to different learning styles
  - Promote physical as well as online sources of education e.g. libraries.

One group discussed the possibility of creating personalised online education offering wider options for students.

"Provide full personalised learning to allow students to take interesting courses in their own time"

Echoing discussions on previous strands, delegates also suggested ways to educate the wider community about the benefits of AI, as well as taking actions to address employment loss due to AI developments.

- Include AI in different university courses so workers can bring their AI skills to different careers and sectors.
- Ensure that over reliance of AI doesn't happen (go back to old ways if not working as well).

2. Background to The Youth Assembly

2.1 The National Youth Assembly on Artificial Intelligence

Ireland aims to become an international leader in using Artificial Intelligence (AI) to benefit our economy and society, through a people-centred, ethical approach to its development, adoption and use. AI refers to machine-based systems programmed to make predictions, recommendations or decisions using data.

The Government recognised the need to have meaningful engagement with the public on the development, governance and use of AI. The AI - Here for Good: National Artificial Intelligence Strategy for Ireland, is based on human rights and ethical principles, with an aim to listen to people's views and embed AI in society in ways that respect and promote diversity, inclusion, equality and non-discrimination. To enhance engagement and to continue to build trust and awareness of AI, the Government committed to opening a conversation with children and young people about AI and it was decided to convene a National Youth Assembly on Artificial Intelligence.

The National Youth Assembly on AI[1] was convened for young people from across the country to express their opinions and fears in relation to AI, and to explore its potential impact on the lives of children and young people before making a set of recommendations. The Recommendations from the National Youth Assembly, contained in this report, will be considered by Dara Calleary T.D., Minister of State for Trade Promotion and Digital Transformation at the Department of Enterprise, Trade and Employment (DETE) in light of the evolving policy direction of AI and its impact across a number of areas of Government.

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[1] The National Youth Assembly of Ireland is made up of 47 sitting delegates between the ages of 12 and 25 years who have been nominated by Comhairle na nÓg, youth organisations and other relevant organisations. See Appendix 1 for further details on the structure and organisation of the National Youth Assembly of Ireland.

3. Structure and Format of The Youth Assembly on AI

3.1 Planning the National Youth Assembly on Artificial Intelligence

The National Youth Assembly of Ireland is based on the approach of participation with purpose, based on Article 12 of the UNCRC, where children and young people are supported to express their opinions and these opinions are given due weight. Guided by the recently published Participation Framework and the Lundy Model of Participation, the Project Team (see Appendix 2) used participative approaches to support delegates to express their views on Artificial Intelligence. As part of this process, the project team established a Youth Advisory Group (YAG) to co-design the format for the day, to host a preparation session and to co-facilitate the Youth Assembly.

3.2 Preparation for the Youth Assembly on Artificial Intelligence

To prepare delegates for the event, participants were sent an information pack providing information on the strategy with links to relevant background material.[2] Delegates were also invited to an online preparation session on the 24th of September 2022 which was attended by 28 of the Youth Assembly permanent delegates and 13 guest delegates. This meeting prepared delegates for the Assembly and increased their knowledge and capacity on the subject. This session offered the opportunity to hear from the two Government Departments (DETE and DCEDIY) and from four AI experts (see Appendix 3(b) for summary of presentations). During this session, delegates put forward written questions to the Minister and his department (Appendix 3(c) for further detail), thus commencing the process of providing delegates with audience and influence.

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[2]The pack is available on request. Examples of background material include a video presentation on the EU Artificial Intelligence Act https://www.youtube.com/watch?v=l0h5gjturV4

3.3 Format of the Youth Assembly on Artificial Intelligence

The National Youth Assembly on Artificial Intelligence convened at the Tangent, Trinity College Dublin on the 12thOctober 2022. The Assembly was chaired by four members of the Youth Advisory Group and was attended by 41 young delegates (28 permanent delegates and 13 invited delegates) from 26 organisations. The delegates were aged between 12 and 24 years (see Appendix 4(a) for further detail).

The Youth Assembly was welcomed by Mr Colm O'Conaill (Assistant Secretary of the DCEDIY) who emphasised the Government's commitment to listening to children's and young people's views.

Mr Dara Calleary, TD (Minister of State for Trade Promotion and Digital Transformation) also thanked the delegates for taking part in the Assembly, and for discussing these issues with their Comhairle, their schools and youth groups in advance of the event. He encouraged the young people to bring some of the relevant issues from previous Assemblies (e.g. Rural and Climate) into their discussions during the day.

This was followed by a short presentation from Greg Tarr (CEO INFEREX), winner of the overall prize of the 2021 BT Young Scientist and Technology Exhibition, who developed software to detect deepfakes using artificial intelligence.

Following the presentations, the delegates participated in three participative activities (see Box 1 below) designed to facilitate their discussions on the four strands of the Government's strategy on Artificial Intelligence *AI – Here for Good*. After the discussions they were asked to prioritise suggestions and to agree recommendations for action (see Appendix 4(e), Appendix 4(d) and Appendix 4(f) for further details).

Box 1: Youth Assembly on AI 2022

Activity 1: Participative workshops delivered by facilitators accompanied by guest experts on four strands from *AI – Here for Good*
    Strand 1 – AI and Society
    Guest Expert: Professor Andrew Parnell (Hamilton Professor in the Hamilton Institute at Maynooth University)
    Strand 2 - A governance ecosystem that promotes trustworthy AI
    Guest Expert: Barry Lowry: Chief Information Officer for the Irish Government
    Strand 4 - AI serving the public
    Guest Expert: Professor Barry O'Sullivan (Director – Insight SFI Research Centre for Data Analytics, University College Cork)
    Strand 6–AI Education, skills and talents

Guest Experts: Professor Patricia Maguire (Director of the UCD Institute for Discovery) & Anthony Kilcoyne (Advisor with the Professional Development Services for Teachers)

Activity 2: **World Café** of groups of 10 delegates to discuss the four strands in further detail.

Activity 3: **Recommendation development** focused on Situation, Action, and Outcome

In Activity 1 the delegates participated in the four workshops delivered by guest experts (see Appendix 4(d)) where they had further opportunities to ask questions on the four strands.

After the workshops, the delegates remained in their groups for Activity 2, facilitated discussions on each of the four strands. In this activity delegates were asked to consider three questions (Box 2).

Box 2: World Café Questions

Question 1: What are the risks / concerns?
- What things concern you about the area of AI?
- What risks can you think of?

Question 2: What are the benefits / potentials?

Question 3: What do you think the Government should do? (Suggestions)
- What could they do more of?
- What steps could they take?

In the third activity the facilitator asked the delegates to look at the votes on the tablemats and to agree on the top recommendations/suggestions for Government. The group considered this recommendation in further detail, breaking it down into three parts: the Situation, the Action and the Solution.

4. Recommendations to Minister Calleary

4.1 Development of Recommendations for Government

In the third activity, the facilitators asked the delegates to look at the votes on the mat on their table and to agree on the top recommendation/suggestion for Government. The group considered this recommendation in further detail, breaking it down into three sections:

• Situation

• Action

• Solution

Once the delegates had completed their deliberations, the group agreed on the wording of the recommendation which is recorded on the recommendation template (see Appendix 5b for summary of the suggestions for each Strand).

4.2 Presentations of Recommendations to Minister Calleary

Volunteers from each group presented Minister Calleary with three recommendations from each of the four strands. The volunteers outlined some of their concerns before presenting their recommendations of actions to address these concerns (see Figure 1a and Figure 1b).

The delegates concerns centred on:

• A lack of awareness, education & transparency in AI in Government.

• People get left behind. Unfair allocation of resource (e.g. Rural/urban).

• If people don't understand AI, they won't use it.

• Trustworthiness of AI.

• Implementation of AI needs to be inclusive.

• AI will lead to automation of jobs / loss of jobs.

• Unequal access to education about AI.

• The need for a more informed society.

• Unreliable access to public transport and poor traffic management.

Reflecting their discussions, the 12 recommendations encompassed actions in the six following areas:

• Legislation and regulation (2 recommendations)

• Education and awareness raising (4 recommendations)

• Equality and inclusion (human rights approach) (1 recommendation)

- Support for work and employment (2 recommendations)
- Investment in AI in public services (2 recommendations)
- Planning (transport) (1 recommendation)

Minister Calleary thanked the delegates for their thoughtful deliberations and recommendations. He reflected on each of the recommendations, providing examples of how some of their recommendations are already being considered by Government.

Two members of the Youth Advisory Group thanked the Minister, the two Government Departments and the organisers of the Assembly. Before closing the event, they asked the delegates to complete the online survey for their feedback on the event (see Appendix 6).

Appendices

Appendix 1: Structure of the National Youth Assembly of Ireland

Youth Advisory Groups (YAG) guide and direct the National Youth Assembly of Ireland and were involved in establishing the Assembly, shaping how the Assembly is structured, as well as developing the approach for each assembly sitting. DCEDIY and the NPO collaborates with the relevant Government Department and a youth advisory group to ensure young people are effectively facilitated to express their views.

The main function of the National Youth Assembly is to provide a systematic means of capturing the voices of young people in Ireland and feeding this directly into Government policy. By hearing from young people, the National Youth Assembly of Ireland provides insight into some of the concerns facing young people and assists Government in acting on the potential solutions that young people propose. The messages and recommendations made by a National Youth Assembly may also feed into citizen assemblies and other broader citizen consultations.

The relevant Government Department as the policy lead provides the young delegates with the information they need/request on the policy area so that they can form their views. The relevant Government Minister or senior decision-maker hears the views of the young people. Each assembly is reported on by an independent report writer who captures the views of the delegates and compiles a record of the Assembly into a report that includes a summary of the Assembly's recommendations and discussions, which is reviewed by the youth advisory group. The relevant Government department provides feedback at the next sitting of each particular Assembly so that the youth delegates know where their views are going and how their recommendations will be implemented.

National Youth Assembly delegates range in ages from 12 to 24 years and come from all across Ireland. Thirty young people were selected to sit on the National Youth Assembly of Ireland for a term of 18 months, the return to in-person Assemblies has meant that this number has now been extended to fifty with the additional twenty delegates selected from existing nominations. The sitting delegates are nominated by Comhairle na nÓg (Local Youth Councils) and by established youth organisations. When selecting delegates from the young people nominated, the selection panel (including officials from DCEDIY and the National Participation Office) aim to select a broad representation of diverse young people from a range of youth organisations, taking into account geographical spread, urban/rural representation, age, gender and special interests.

The sitting delegates are joined at each Assembly by a number of guest delegates who have a special interest in specific topics being addressed (such as climate issues, rural

development etc.). Guest delegates are nominated by established organisations that have a particular interest in the issue being addressed by the Assembly and from organisations relevant to seldom heard children and young people. Where there are more nominations than places available, a lottery system is used to choose delegates within the criteria specified.

The National Youth Assembly convenes up to four times a year, on different policy areas. As well as providing the delegates with information packs in advance of the Assemblies, DCEDIY hosts an information session to help prepare delegates for the Assembly. At the preparation session, delegates hear from relevant Department officials and relevant experts. The young people also prepare a set of questions for the policy Department who provide a response to the young people prior to the Assembly. Assembly delegates take part in a range of associated activities and can represent the Assembly at events such as Stakeholder Forums, conferences etc.

Appendix 2: Membership of Project Team (Preparation session/Youth Assembly)

Name (A - Z)	Organisation	Role on day
Anthony O'Connor	Foróige	Facilitator
Aoife Lee	Foróige	Facilitator
Conor Kearney	Researcher	Note-taker (desk based)
Deirdre Fullerton	Insights Health and Social Research	Report writer/Note taker
Eileen Leahy	DCEDIY	Presenter
Gavin Byrne	Foróige	Facilitator
Gráinne O'Carroll	DETE	Observer/Presenter
Marc McEntegart	DETE	Observer
Mark O Dwyer	National Participation Office	Facilitator
Renagh Hayden	National Participation Office	Presenter
Ross Church	DETE	Observer
Ruairi Kelly	Foróige	Facilitator
Stephaine Cook	National Participation Office	Youth Assembly Coordinator
Suzanne Byrne	National Participation Office	Facilitator

Appendix 3: Preparation for the National Youth Assembly on AI

Appendix 3(a): Preparation session

To prepare the delegates and to build their capacity and knowledge ahead of the Assembly, on the 24th September 2022, the DCEDIY and National Participation Office hosted a preparation session for all the delegates. This event was co-designed by the Youth Advisory Group (YAG) who had three meetings with the National Participation Office and DETE to plan the preparation session (e.g. guest speakers etc.) and the Assembly event.

Two members of the Youth Advisory Group welcomed the participants, introduced speakers, and closed the event. The speakers included Eileen Leahy (Assistant Principal Officer DCEDIY) and Renagh Hayden (Participation Manager) who described the Department's role in securing the views of children and young people and highlighted the importance of youth voice in decision-making.

This was followed by a short presentation by Grainne O'Carroll (Principal Officer DETE) who provided an overview on the Irish Government's strategy on Artificial Intelligence AI – Here for Good *(see table below*) which was launched in July 2021 and talked about the potential benefits of AI for society. Examples included AI contributing to climate action, public health and urban development.

Summary 8 strands of AI *– Here for Good*

	Strand
Building Trust	Strand 1: AI and society
	Strand 2: A governance ecosystem that promotes trustworthy AI
Leveraging AI for economic and societal benefit	Strand 3: Driving adoption of AI in Irish enterprise
	Strand 4: AI serving the public
Enablers for all	Strand 5: A strong AI innovation ecosystem
	Strand 6: AI education, skills and talent
	Strand 7: A supportive and secure infrastructure for AI
	Strand 8: Implementing the Strategy

During the planning stage the Youth Advisory Group (YAG) discussed each of the 8 Strands and agreed that National Youth Assembly delegates should focus their deliberations on the following four strands:

Strand 1: AI and Society

Strand 2: A governance ecosystem that promotes trustworthy AI

Strand 4: AI serving the public

Strand 6: AI Education, skills and talent

Appendix 3(b): Input from National Experts (Preparation Session)

Four national experts provide input at the preparation session.

- **Professor Barry O'Sullivan (Director, Insight Centre for Data Analytics, School of Computer Science and IT, University College Cork)** discussed how AI can be used in industry together with the ethical issue and bias/trustworthiness in the use of AI. He highlighted the importance of ensuring benefits to industry are transferred to the wider public and shared equally.

Precision is extremely important

AI-enabled decision-making is a subset of algorithmic decision-making. Often these are equated with each other which reduces the validity of conclusions, but also can avoid where the real challenges lie.

Impacts on Civil Liberty and Fundamental Rights

AI-powered systems can have considerable Impacts on fundamental rights, e.g. privacy, autonomy and agency are impacted by on-street Survellience. Dealing with bias is highly nuanced and we need to be precise about what specific bias we're focusing on.

Working Life and Education

The notion that AI will increase unemployment is somewhat of an exaggeration. However, the nature of work will change. Education is critically important. The greater issue is how will the benefit of AI be shared equitably with society.

Societal Wellbeing & Trustworthy AI

Trustworthy AI should be the "only game in town" - AI should be ethical, legally compliant, and robust. Just because an AI system could be developed does mean that it should be.

- **Dr Patricia Scanlon (AI Ambassador and Founder and Executive Chair, Soap Box Labs)** also discussed bias/ethics in AI, the need to mitigate risks and the importance of regulation. She provided examples of how AI can be used in to support reading in schools to provide feedback to parents/teachers on the child's reading progress. She highlighted potential bias such programmes e.g. biased towards white middle class USA readers and not sensitive to a child's reading voice. She also raised the ethical considerations in the collection, use and storage of data.

AI Potential Risks

- AI used to spread dangerous content
- *Bias and discrimination*
- Labour market change
- Privacy infringement
- Introduces new harms to wellbeing (eg. Content moderation)
- AI undermining human autonomy
- AI used in the military

- **Dr Susan Leavy – Assistant Professor, School of Information and Communication, University College Dublin** talked about some of the problems and potential biases in AI before outlining the rewards of AI for wider society. She provided examples of the use of AI in healthcare and for the management of dangerous jobs. She described how the use of historical data can lead to potential biases, providing the example of using data on access to treatment to design systems which will not pick up important contextual information such as the having health insurance/ability to pay for the treatment. She discussed other potential bias in the design of systems including who designs the AI system and who uses the AI system. If end users of the AI system are not involved in the design, there will be the potential for bias. She noted that young people and more marginalised groups tend not to be involved.

- **Professor Patricia Maguire (Professor, School of Biomolecular and Biomedical Science, University College Dublin)** talked about AI for societal group providing examples of how AI is used in healthcare and clinical care e.g. retinal scans, use of smart watches & real time disease tracking and the personalisation of health care allowing for greater prevention rather than cure. She noted that for the full potential of AI to be realised the systems in place need to be ethical and trustworthy. For the systems to be efficient, healthcare providers need to have access to all relevant data in

real time. She provided an example of how AI can be used to address some health inequalities using the management of pre-eclampsia in USA. Using ZIP codes to identify women living in disadvantaged/black areas, tailored preventative care can be implemented to identify the women at greater risk of pre-eclampsia.

- **Professor Maguire** also discussed democratization of AI, and the importance of the public having a greater say in AI. To have this say, the public need to be informed about AI to '*understand the basics so we as an Irish society can harness the benefits'*

Examples of delegates' feedback on the presentations included:

· Insightful: "It was good to have an overview of AI" "New ideas I wouldn't have thought of"

· AI is not all negative "There are benefits" "Use of AI in health care"

· Bias: "Shocking to hear about the biases with AI" "As long as AI is based on historical data which have biased, the AI will be biased" "Impossible to get rid of all biases"

· The importance of human input "Use of AI with military. Very controversial. Some things better left with humans"

· Need for education: "Our current curriculum in school is very outdated. We should have more information on AI e.g. this is what it is, this is how your data is used"

· Disability "I would be interested in hearing how AI can help people with disability/young people

· Data protection: "Is there a way you can decide who your share your information with (in healthcare) "How do we know our data is being protected?"

· Regulation: "The Importance of regulation to stop AI being used for profit but not for the people"

Delegates were asked to share any questions they had for the Minister on a Padlet screen. The DETE answered in advance of the Youth Assembly (see Appendix 3(c) for the questions)

Appendix 3(c): Questions for the DETE (From Preparation Session).[3]

1. Are there any areas, professions or fields where the Department feels humans can never be replaced?

2. Is there any research or investigation being done in AI being used to manage transport routes?

3. Is there any AI being used at the moment in Government departments to manage bureaucracy (Data Management, Trends etc.). If so, what departments in particular are using it the most/least?

4. Is there any interest in funding improvements in Irish Language recognition with Text to Speech and Auto-correct?

5. How does the department plan on tackling the issues of face recognition in policing and the bias in AI?

6. Is there the possibility of AI re-skilling courses/ advice given to businesses on how to implement AI?

7. Asking him questions about the lack of accessibility for young people in AI? AS well as how the department plans on tackling the biases in AI?

8. Is it possible to involve AI in the medical system to reduce delays caused by administration problems?

9. What precautions will the government take to make sure that AI is used for the public benefit and for the good of society and make sure it is not for the profit of corporations?

10. Youth Specific Vulnerabilities - Algorithms that promote gambling, nicotine etc., while there is a prohibition on specifically advertising to children, still use techniques like memes which typically resonate with younger audiences, e.g.: Paddy Power, leading to the following situation
"Research from the European School Survey Project in 2019 showed that **the 'problem gambling incidence rate' in 15 and 16-year-old boys in Ireland is five times higher the estimated problem gambling incidence among the adult population**."
How will the government ensure that young people are protected from this use of algorithms by large corporations?

11. Would it be possible to review the current school curriculum for IT and reform it to include learning about AI and its uses in most people' lives as it increases?

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[3] The full responses to the questions are available on request.

12. What artificial Intelligence do you envision being prioritised for people living with disabilities and how will this be funded?

13. How are you going to implement AI/technology training in teacher training?

14. How are you going to educate the population on artificial intelligence? In what way will artificial intelligence? In what way will artificial intelligence be incorporated into our academic curriculums, workplaces and broader society?

15. In your opinion what do you think Ireland in the future will look like with AI (like will there be severe job loss or new equipment for certain jobs like doctors or cooking?)

16. Data protection – How can we ensure that peoples data, when used by AI, is adequately protected when even recently the HSE's private patient data was hacked?

17. Balance – Do you think Ireland can attract businesses here without deterring them with over-regulation or GDPR, while also effectively protecting the privacy and rights of their consumers?

18. Bias in A.I - How do you plan on preventing bias from being present in these AI systems in the future?

19. GDPR/ Data Protection with AI – How does the Government plan to enforce current Date Protection Laws with AI and ensuring that all companies are transparent to users in a user-friendly way e.g. not long documents, more easy to read & shorter documents with graphics etc.

20. How can we ensure AI can be accessible to all in terms of speech recognition or financially in terms of advertising products to those who are unable to spend money whenever they please?

Appendix 4: National Youth Assembly on AI

Appendix 4(a): Warm up activities

Before the formal presentations the delegates had the opportunity to take part in a number of warm up activities. These included a chance to use different types of AI technology such as VR, DALL.E and Google experiments such as Quick Draw and Semi-Conductor. ADAPT, the SFI Research Centre for AI-Driven Digital Content Technology hosted a stand using AI technology and discussion. The delegates also had the chance to record a short video blog (see Appendix 4(b) for summary of the messages). The young people who participated in these activities said they were looking forward to hearing the experts, learning more about AI, meeting other young people to sharing their views and having a say on the future use of AI.

Appendix 4(b): Summary of Video Blog

"Hi I'm ----------, I'm from Kildare and I'm part of Foroige and the thing I'm most looking forward to is meeting new people and getting to know more about Artificial Intelligence."

"My name is …..s, I'm from Monaghan Comhairle na nOg and what I'm most looking forward to today is having a say in how AI is used in Ireland in the future."

"Hi my name is … and I'm from Cork City, Cork City Comhairle. Today I am most looking forward to probably hearing about all the new things about AI."

"My name is _____ I'm a 6th year student from Offaly. Today I have to say one of the most interesting things was hearing about what different people's opinions were on AI are and about what their beliefs on regulations are and learning about these different regulations. Also we had some amazing guest speakers come in, especially one of the winners of the BT young Scientist who gave a very impassioned discussion on AI and kinda gave a really good explanation of it that helped me have a much greater understanding of it. I really am enjoying the day so far."

"I'm ….. and I'm from Macroom and I've just really enjoyed today sharing my opinions with everybody and meeting a lot of new people. Its really interesting to meet people who have the same interests as me and people who are just really nice. I've really enjoyed the debating in the workshops, the walking debate. Yeah, just going back to sharing my opinions and stuff and hearing other people's opinions"

"I'm from Dublin City Comhairle and what I've really enjoyed about today is learning about how AI is becoming more…how its benefiting over the years, especially as a young person it's really interesting to see what my future will look like with AI and how, you know, it will be the new norm in the next twenty years to have all this around us"

"Hiya, I just wanted to say that I am having a wonderful time at the AI Intelligence Assembly or youth Assembly should I say. We've met lovely lovely people, particularly Greg, it was nice to see another young person who is also so intelligent. It was amazing to see, I loved hearing all the cool inputs that everybody has. It's a wonderful venue as well. I'm very interested in AI intelligence and I'm very excited for what we have in the future, and we are just waiting on some recommendations that we can feedback which is also amazing. I hope that everything works out and I am excited to see what happens in the official Assembly"

Appendix 4(c): Profile of Youth Assembly on AI. Counties and Youth based organisations represented at the National Youth Assembly of Ireland

Counties	Organisations	
Cork	**Youth Organisations**	**Comhairle na nÓg (Youth Councils)**
Dublin	21. Balbriggan Youth Service	1. Cork City Comhairle na nÓg
Galway	22. Candle Community Trust	2. Cork County Comhairle na nÓg
	23. Catholic Guides of Ireland	3. Dublin Comhairle na nÓg
Kildare	24. Cloyne Diocesan Youth Service (CDYS)	4. Fingal Comhairle na nÓg
Laois	25. Cork ETB	5. Mayo Comhairle na nÓg
	26. Eco UNESCO	6. Monaghan Comhairle na nÓg
Mayo	27. Foróige	
Monaghan	28. Irish Girl Guides	7. Offaly Comhairle na nÓg
	29. Laois Youth Work Ireland	8. South Dublin Comhairle na nÓg
Offaly	30. Localise Youth Volunteering	9. Tipperary Comhairle na nÓg
Sligo	31. No Name Cork	
Tipperary	32. Ógras	10. Waterford Comhairle na nÓg
	33. Spunout	11. Wicklow Comhairle na nÓg
Waterford	34. YMCA Cork	
Wicklow	35. YMCA Ireland	

Appendix 4(d): Profile of Experts at the National Youth Assembly

Photo	Details
Preparation session & Assembly workshop Strand 4 - AI serving the public	**Professor Barry O'Sullivan** Director – Insight SFI Research Centre for Data Analytics, UCC Professor Barry O'Sullivan is internationally recognised as one of the leading academics on AI. Professor O'Sullivan works in the fields of AI, constraint programming, operations research, ethics, and public policy for AI and data analytics. He is professor at the School of Computer Science and IT at University College Cork (UCC) and the founding Director of the Insight Centre for Data Analytics at UCC. He is the Principal Investigator at the Confirm Centre for Smart Manufacturing, and Director of the Science Foundation Ireland Centre for Research Training in Artificial Intelligence. Professor O'Sullivan recently chaired the Steering Group that produced the Expert Group on Future Skills Needs report on AI Skills. Professor O'Sullivan was formally Vice Chair of the European Commission High-Level Expert Group on AI which published "Ethics Guidelines for Trustworthy AI" and "Policy and Investment Recommendations for Trustworthy AI".
Preparation session & Assembly	**Dr Patricia Scanlon (AI Ambassador)** Founder/CEO – Soapbox Labs Founder of Soapbox Labs, specialising in speech recognition systems and machine learning. Senior member of the Institute of Electrical and Electronics Engineers (IEEE). Mentor to early-stage founders at the Founders Institute. Board member for the National Master of Science in Artificial Intelligence. Member of the advisory board on Artificial Intelligence to Not-for-profit TechIreland. As AI Ambassador, Dr Scanlon is leading a national conversation on the role of AI in our lives, emphasising an ethical approach in the use of technology and in particular in its adoption by

	enterprise. Participation in this group will align with Dr Scanlon's key objectives as AI Ambassador such as demystifying AI and building public trust in the technology.
Preparation session & Assembly workshop Strand 6 AI Education, Skills and Talents	**Professor Patricia Maguire** Professor Patricia Maguire is Director of the UCD Institute for Discovery, a major cross-disciplinary research institute in UCD, which builds and cultivates interdisciplinary connections in emerging areas of research aligned to the UN Sustainable Development Goals. Recent campaigns include 'AI for good', 'Plotting the Future', 'Cybersecurity' and 'Data for Healthcare'. UCD Discovery is also a member of the prestigious University-Based Institutes for Advanced Study (UBIAS) network. Patricia's own research interests are focused on combining her world-leading expertise in platelet biology together with Artificial Intelligence to aid in the diagnosis and further understanding of inflammatory diseases including Preeclampsia, Multiple Sclerosis, Venous ThromboEmbolism and COVID-19. She is author on over 55 peer-reviewed publications of exceptional impact in leading international journals including several senior author manuscripts in the Proceedings of the National Academy of Science, Proteomics and Blood. She has won multiple awards including the 2020 Science Foundation Ireland Mentorship Award and the 2021 NovaUCD Invention of the Year Award.

  Preparation session & Assembly	**Dr Susan Leavy** Dr Susan Leavy is an Assistant Professor in the School of Information and Communication with research interests concerning artificial intelligence, text mining and digital humanities in University College Dublin. She is currently working on cross-disciplinary approaches to mitigating bias in machine learning algorithms. Her postdoctoral research explored the use of artificial intelligence and text mining for cultural analytics. She earned a PhD at Trinity College Dublin detecting bias in political news with machine learning and natural language processing. She holds an MPhil in Gender and Women's studies, an MSc in Artificial Intelligence and a BA in Philosophy and English Literature.
  Assembly Workshop Strand 1 AI & Society	**Professor Andrew Parnell** Andrew Parnell is Hamilton Professor in the Hamilton Institute at Maynooth University. His research is in statistics and machine learning for large, structured data sets in a variety of application areas. He has co-authored over 75 peer-reviewed papers in journals such as Science, Nature Communications, and Proceedings of the National Academy of Sciences, and has methodological publications in journals such as Statistics and Computing, Knowledge-Based Systems, The Annals of Applied Statistics, and Journal of the Royal Statistical Society: Series C. He has been awarded over €3 million to date in direct funding as PI or Co-PI, and has been involved in grants totalling over €65 million as PI/collaborator. He has been heavily involved in the commercialisation of research through the start-up companies Prolego Scientific (CSO) and Atturos (Scientific Advisor). He is currently a principal investigator in the SFI I-Form Advanced Manufacturing Centre, and a funded investigator in the SFI Insight Centre for Data Analytics.

  Assembly Workshop Strand 6 – AI Education, skills and talents	**Anthony Kilcoyne** Anthony is a post-primary teacher on secondment from Archbishop McHale College, Tuam and has been seconded to the PDST since 2011. As an advisor with the PDST, Anthony supported schools in focusing on the improvement of teaching and learning across the curriculum, through literacy and numeracy, school self-evaluation, programme, DEIS and technology integration supports. In 2013 Anthony was appointed to the role of Team Leader for PDST School Leadership where he coordinated professional development opportunities for current and aspiring school leaders, to include school self-evaluation. In October 2017 he was appointed to the position of Deputy Director for digital technologies.
  Assembly Workshop: Strand 2 - A governance ecosystem that promotes trustworthy AI	**Barry Lowry** Barry Lowry has been the Chief Information Officer for the Irish Government since April 2016 with the primary task of taking forward the Government's digital agenda. This includes developing the use of shared services, digital ID, digital services and data to better serve the people of Ireland and ensure that Ireland is well-placed to influence and exemplify the EU's digital ambitions for 2030. Barry is also the Chief Adviser to Government on all Digital matters affecting the State and its citizens. Barry was previously the Director for IT Shared Services and Strategy and Head of the IT Profession within the Northern Ireland Civil Service. Barry is a Fellow of the Irish and British Computer Societies and is a former winner of the BCS Northern Ireland IT Professional of the Year. He was awarded an O.B.E. for services to the Northern Ireland Government and the Northern Ireland Computer Industry in 2017.

Appendix 4 (e): Activity 1 Workshops with Experts

The workshops covered each of the four strands:

- Strand 1 AI and Society – This was an experiential workshop that involved using AI technology and discussing the potential benefits, risks and concerns.

- Strand 2 A governance ecosystem that promotes trustworthy AI – The workshop used a moving debate to encourage discussion around this topic.

- Strand 4 AI serving the public – A guest expert talked to the delegates about how AI is currently used in the public service. They discussed the implications of this.

- Strand 6 AI Education, skills and talents – This workshop focused on education and how AI is used in a practical sense in different workplaces.

During the workshops the delegates had the opportunity to ask the experts additional questions to help with their deliberations. For example, in the Strand 4 workshop the participants heard how the pandemic and associated lockdown accelerated schools' adoption of AI, and how education and schools are adapting to the changing environment. Practical examples included how schools have used AI for: translations for Ukrainian pupils, for blended learning (combination of online and teacher led learning) and for personalised learning e.g. in maths.

One of the workshops (Strand 2) had moving debates to allow delegates express their views and explore the EU regulation and Irish law in further detail. (See Appendix 4(d) for details of experts).

Appendix 4 (f): Activity 2 World Café to discuss the four strands.

The World Café exercise was designed to allow delegates consider each strand in further detail. For this activity, delegates were seated at tables for up to 10 participants.

Activity 1: World Café Discussions

After the workshops, the delegates remained in their groups to take part in facilitated discussions.
For each strand, delegates were asked to consider three questions.

Question 1: What are the risks / concerns?
- *What things concern you about the area of AI?*
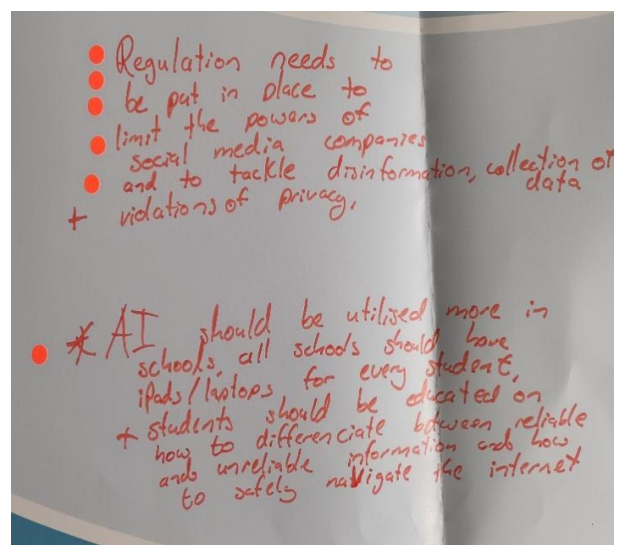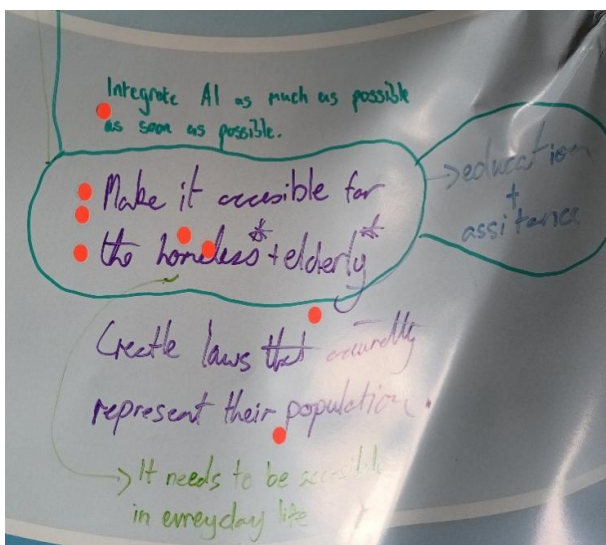- *What risks can you think of?*

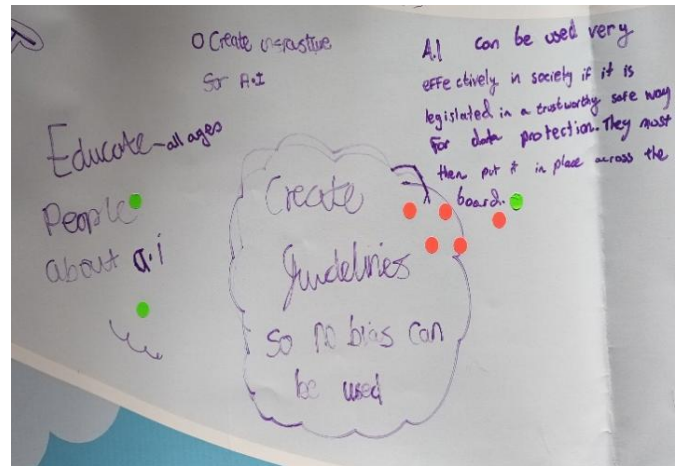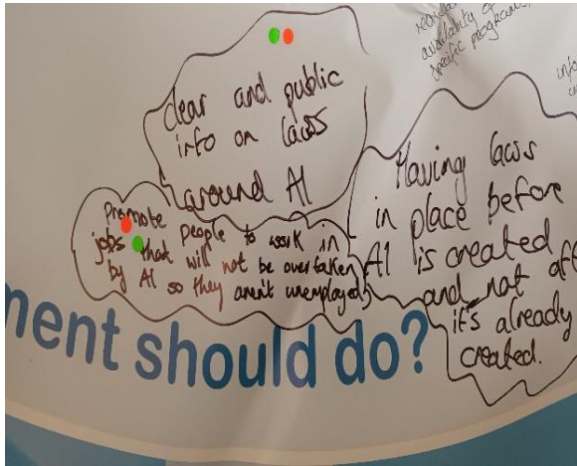*Question 2: What are the benefits / potentials?*

Question 3: What do you think the Government should do?
- *What could they do more of?*
- *What steps could they take?*

At the end of discussion of two strands, the delegates were given three sticky dots to vote on the suggestions on the mat on their table.

Example of tablemats with sticky dot votes

Appendix 4 (g): Activity 3 Developing Recommendations

Once they had completed this discuss, the group agreed on the wording of the recommendation which is recorded on the recommendation template.

Recommendation Template

Appendix 5: Findings from Activity 2 and Activity 3

Appendix 5(a): Summary of Activity 2 Discussions

Table 1:   Overview of discussion Strand 1: AI in Society

Theme	Concerns	Benefits	Suggestions
Equality and Inclusion	Unequal data collection across individuals More vulnerable people may be susceptible to privacy infringements Impact on children's development	Meeting the needs of more marginalized groups AI can help predict homelessness. Medical cures for cancer and other diseases AI can help disabled people - allows for greater independence AI can also stop some forms of discrimination.	Promote data collection. AI education in these and other disadvantaged groups Facilitate e.g. use of self-driving cars for blind.
Trustworthiness **Need for regulation/data protection**	How far will AI go? AI might go too far. Data protection • Breaches in security of healthcare-related data • Lacking data protection frameworks Misuse of data • Violation of privacy • Data misuse by private companies	Use of AI services encouraged if people are confident in regulation protocols. Increased trustworthiness=greater net benefit from AI.	Create laws encompassing the wide spectrum of industries/purposes which AI may be used. Ensure adequate regulations to protect entire population, especially children. Regulation to: • limit the powers of social media companies. • regulate what data can be collected. • to tackle violations of privacy

	• 'Bots' used to drive misinformation campaigns. Lack of trust • Data protection • Who to trust with the power. • How to monitor AI Privacy violations • Use of facial recognition • Insecure data How to identify biased algorithms		Establish guidelines stipulating systems are wholly objective in nature. Creation of regulatory body and Ombudsman for AI. Continual assessment of efficacy of programmes in place so that they can be updated as necessary. Seek the opinions from diverse sources on how AI should be governed. Educate the wider public on regulations/laws. • Communicate with the wider public via social media platforms to ensure consistency with data protection policies.
Changes in job demand/employment	Too quick to replace something where human intervention is needed. Potential loss of jobs. AI will incur shifts in industry as in certain roles AI can perform the same tasks more efficiently more efficiently than	Speed in processing New and more improved methods for scientific research could yield findings with positive consequences for wider society. Reduction in human error Automation can take out menial jobs and improve quality of life.	Implement training programs and/or payment schemes e.g. Universal Basic Income to encourage transitions to different careers/jobs. Provide funding to help 'upskill' workers. • Use profits from automation towards this end.

	human employees. May cause loss of specialised skills/knowledge		
Education & awareness raising (community)	A population with less knowledge of AI is more likely to have an aversion to it but also be may also be less cautious when sharing their personal data		Implement AI education programs across all levels of society
School based education		Education can be delivered in a more effective manner, more specialised individual learning programs/tools	
Other		It can be used to tackle climate change	

Table 2: Overview of discussion Strand 2: A Governance ecosystem that promotes trustworthy AI.

Theme	Concerns	Benefits	Suggestions
Equality and inclusion	Services inaccessible to rural communities, people without access to a computer/internet	Improved quality of life e.g. by affording more free time via automation Improved education delivery	
Trustworthiness of AI	People may create algorithms for their own selfish goals e.g. extorting money, influencing political opinions. Algorithms may be biased/manipulated to distort results and further a specific agenda.	AI can be a valuable source of information for both governmental and private organisations when used correctly	Refer to the UNCRC and declaration of human rights. Ensure AI is just and fair. Implement restrictions e.g. laws banning inappropriate facial recognition. Exercise transparency and integration
Legislation and regulation	Overly zealous legislation limiting the freedom to create AI. People may not always trust government policy, particularly in relation to public surveillance	Effective policies allow for safe use of AI and maximise positive effects whilst minimising negative outcomes	Publicise government legislation in an understandable format not full of legal/technical jargon. Introduce an ombudsman. Update laws ad-hoc Put preventive laws in place before AI is

			developed not afterwards. Survey at regular intervals to identify what is/isn't working
Changes in job demand / employment		Creating jobs for people who want to have a positive impact.	Encourage people to work in sectors where they are less likely to be replaced by AI automation.
Education and awareness raising			Teach people of all ages about AI so they understand its uses, dangers and potential benefits. Include AI as part of the school curriculum. Create programs to assist in delivery of AI education and increase accessibility
Other	Mental health implications No going back		

Table 3: Overview of Strand 4: AI serving the public.

Theme	Concerns	Benefits	Suggestions
Trustworthiness	AI algorithms/programs may be used in attempts to influence voter choices. Reliability/Quality of the available data AI limited by the accuracy of inputted data. Bias: Intentional and unintentional Misuse/Improper use my uneducated people. Lack of empathy/human judgement	Correct overseeing of tests (teachers marking exams – as long as its tested) AI can be used to search for criminals/missing people via image processing or facial recognition.	Make a new Department for AI. Have an Ombudsman for AI. "Ambassador could lead". Try improving the security of AI. Implement quantitative, objective AI that is capable of assessing its potential biases. Educate the public on the purpose and use of AI.
Public services	Insufficient transport links; lack of routes/ convoluted routes	AI to can be used to plan transport. • Better transport can increase productivity. • Safer transportation • Fewer transfers	Use AI to identify public transport needs and devise more efficient routes/timetables. Data obtained from traffic management may subsequently be used to predict e.g. peak times and adjust schedules accordingly.

Theme	Concerns	Benefits	Suggestions
			Have safety features for self-driving vehicles.
	Not having connected systems. not having facilities/systems for different communities e.g. immigrants	Improved speed of processing • Better use of data to allocate resources: • Improved infrastructure • Interconnected public services. • Better public transport • More efficient administration • Improved distribution of benefits • Improved communication-standardised data and processing between departments Healthcare • Diagnostics • Remote surgery Education • Tailor education to students' needs. • More interactive approaches	Public facing AI, making better connections and interactions. AI to be brought into public services e.g. healthcare, education etc. Implementation of AI has to be Government wide. Investments into technological developments/try integrating AI with older systems. Invest in hardware and updating systems. Integrate modern AI-based systems with more antiquated systems.

Theme	Concerns	Benefits	Suggestions
		• Can reach more students e.g. online delivery.	
Equality/Inclusion	Older generations do not understand/not being educated about AI. Prioritising one group over another. Negative profiling e.g. people of colour Cashless society would not be accessible by different groups e.g. elderly, homeless, traveller community. Job applications / discrimination based on past practices.	More inclusion for people who are differently abled. More connection for people who share the same interests. AI and remote working create opportunities for decentralisation (if good internet and remote working supported). May allow rural communities to be more sustainable. AI can be used to help people with disabilities to access things/cures for deafness.	Everyone needs to be considered. Make sure any suggested advancements include the underrepresented groups. Not everyone has access to bank account, internet. Have supportive education for immigrants and other nationalities (for English and personal use). Have legislation that protects the 'at risk' in society. Ensure any suggested advancements take into consideration under-represented groups. Make AI-driven tech available to those with disabilities.
Job loss/ employment	Loss of jobs/fear of losing jobs	AI might create new jobs and help workers in many sectors.	Use AI to assist but not replace humans in certain roles.

Theme	Concerns	Benefits	Suggestions
		Can be used for menial/dangerous jobs. Increased opportunities e.g. people can find employment in roles that wouldn't be possible without AI assistance	Conduct research into who will lose jobs to AI and make plans to upskill them.
Other			More education on smart meters. Solutions to educate schools on how AI can be used in schools.

Table 4 Strand 6: AI Education, skills and talents

Theme	Concerns	Benefits	Suggestions
Equality and inclusion	Unequal access to education on AI People at different levels of learning ability can learn at different speeds. Misinterpretation in language learning. Can't form bonds/social interactions. Lack of human connection.	Education/training can mitigate fear/confusion surrounding the future of AI technology. AI Access to wider communities of shared interests / talents not limited to locality. Allows to connect with other cultures and students from different locations. It gives more accessibility to students from rural areas/lower SES students – go online or catch up on missed lessons.	Equal opportunities – education for those in school and not. Education needs to be offered to all sectors of society including methods to include older generations. Offering AI courses/workshops outside schools, such as in community centres, so that people of all ages can learn about it. Facilitate accessible AI teaching adapted to different learning styles. Teach people that AI should be used in moderation. Educate people on possible AI advantages.
Education and training (Schools)	Insufficient resources (some private schools have better assess to AI).	AI greater access to information and allows for searching and archives/communication/international media. Tailored education. Teachers can only	Need for standardisation. • Develop a more 'informed' curriculum involving AI. • Consistent Teacher training • Introduce AI as part of school curriculum, supported by public

Theme	Concerns	Benefits	Suggestions
	Teachers not trained to make proper use of new technologies. Teachers not understanding what AI is; utility of AI (falling behind or feeling left out) Not all students will find AI engaging or may not be suited to learning in the manner being taught.	teach as fast as their slowest student (different learning paces/courses) More accessible and less expensive than books. Replace heavy school bag. Remote learning possible/online schools. Assessments. AI helps students and teachers access new information and learning tools. Could help individuals realise their potential.	funding. "*Equitable transition*" • Have an e-learning platform with blended learning. • Equitable funding distribution across all schools • Have access to technology/good broadband as a prerequisite in all schools before teaching AI. • Tailored assessment for each student. • Implement technology/AI as practical course for secondary schools or TY. Delivery of AI education • Use 'blended learning' incorporating e-learning platforms. • Make AI more 'friendly' to all by making classes engaging e.g. creative coding exercises. • Don't force teachers to connect subjects to AI where it lacks real relevance. • Provide full personalised learning to allow students to

Theme	Concerns	Benefits	Suggestions
			take interesting courses in their own time. • Promote physical as well as online sources of education e.g. libraries
Education (communities)			Set up workshops for young people
Trustworthiness	Misinformation.		Data safety should be taught from early years to ensure CYP are safe online. Regulation of APS to not show faces e.g. Instagram etc.
Jobs and employment	Becoming overly reliant on AI Uncertainty regarding changes in industry demand in future Loss of more 'traditional' skills and knowledge Lack of education about the future jobs being replaced by AI. It could breakdown / erase systems.	New skills and methods. New technology e.g. can create music automatically created/programmes to developing crafts. Can make difficult tasks easier. Can provide accurate career guides for further education. Improved opportunities in AI	Provide job security to those may be impacted by AI developments e.g. concept artists Include AI in different university courses so workers can bring their AI skills to different carriers and sectors. Ensure that overreliance of AI doesn't happen (go back to old ways if not working as well).

Theme	Concerns	Benefits	Suggestions
		research for future workforce A more 'tech-fluent' population can encourage international tech corps to establish offices in Ireland	

Appendix 5(b): Summary of Activity 3: Recommendations
Table 1: Strand 1: AI in Society

Situation / Concern	Action / desired outcome	Recommendation
Lack of awareness, education and transparency around AI	Education for all stakeholders including decision-makers	Establishment of a regulatory body similar to data protection commission
Lack of awareness	Create unbiased legislation that is universal for society	Government to make AI accessible in a way that promotes diversity and upholds human rights. Widespread implementation
Most people don't know how to use AI	We need to have more people educated and informed on what AI is and how it works.	Government should fund accessible programmes where young people support others to use AI correctly e.g. groups with older people to educate and inform them on AI (what it is, and how to use it).

Table 2: Summary of the recommendations for Strand 2: A governance ecosystem that promotes trustworthy AI

Situation/Concern	Action/desired outcome	Recommendation
AI can be biased, untrustworthy and there's a lack of education on it. We need to make AI trustworthy.	Trustworthy AI Strong regulation in place, protection of our data (e.g. GDPR) We need education to ensure that AI is inclusive	Ensure that equality and diversity is central in policy making by using a human rights approach which fulfils the governments human rights obligations. Use human rights approach to ensure equality and diversity in policy making.
Lack of education and knowledge about AI If people don't understand AI, they can't be involved.	AI education in primary and secondary schools Everyone has access to information and education about AI	Education in AI should be included in all education settings from primary schools through to 3rd level. It should be a key subject which is well funded, relevant and ongoing rather than a one-off talk. Education should also be provided to young people through other avenues such as sport and youth clubs. Provide education to all e.g. primary school, 2nd and 3rd level. • AI should be taught as a key subject and activity in primary and secondary schools. Make it relevant, fund, and ongoing. Do not rely on one-off talks. • Provide education to young people everywhere e.g. youth clubs and sports clubs. Provide education to all e.g. primary school, 2nd and 3rd level. • AI should be taught as a key subject and activity in primary and secondary schools. Make it relevant, fund, and ongoing. Do not rely on one-off talks.

Situation	Action /Desired Outcome	Recommendation
		• Provide education to young people everywhere e.g. youth clubs and sports clubs.
Loss of jobs due to AI automation	Universal Basic Income (UBI) (i.e., an income for every essential living requirement is accessible for all for free). When menial jobs are automated people will retrain and find a role in society which provides a fulfilling job through their intrinsic motivation. This will have a positive impact on wellbeing	The government should provide a universal basic income for all. Pay differences should be based on workloads and the stress of the work. Provide a universal basic income for all. Differentiate pay based on workloads and stress. Support should be in place for people whose jobs are displaced by AI to ensure that people are supported as they retrain to work in other roles.

Table 3: Summary of the recommendations for Strand 4: AI serving the public

Situation	Action /Desired Outcome	Recommendation
Unequal allocation of resources. The danger of people being left behind. Loss of culture and skills through overuse / reliance on technology *(taken from Strand 1 notes)*	Make sure no one is left behind (urban/rural) Bring all up to standard (e.g. hardware and software) Integrate new AI technology with older systems. Get more views on AI from a wide variety of people	There should be an investment in technology and hardware used by public services to bring up the standards across the whole country so that access is more widely available to all. Utilize public buildings to upskill communities and conduct surveys to identify gaps e.g. in underdeveloped and rural areas. Investment in technology/particularly hardware in the public services so everyone can access new systems. • Bring up the standard. • Use all settings to upskills communities e.g. county council building etc.

		• Conduct surveys / research to see what needs to be done to address any gaps (esp. in underdeveloped and rural areas).
Public transport is unreliable/inefficient and absent. Delays in traffic / transport due to roadworks etc.	AI to improve transport for all	• AI to be used to predict pressure points to improve public transport and planning networks for traffic management
Need for immigrants to be fully informed of AI	Create infrastructure for immigrants to access services	Create a supportive infrastructure for immigrants to enable them to have access to services e.g. online systems such as banking, personal medical information and other personal information. Use AI to create infrastructure for immigrants to access services. • Have more supportive education (for English & personal learning) • Enable access the system e.g. access to banking, personal medical information, and other personal information on systems etc.

Table 4: Overview of Strand 6: Education, skills and talents

Situation	Action	Recommendation
AI needs to be accessible. There is a need for education for all groups and types of learners.	Have community-based AI programmes to ensure all age groups can access AI education	We want to see all generations of society educated on AI. This should take place inside and outside formal education.

People need to understand AI	Communities need to develop understanding and AI skills	Communities need to develop understanding and AI skills. • Use a balance of traditional and new methods of delivering courses both in-person and online. • Balance between traditional and new ways of delivering courses. • Balance between in-person and online
Unequal access to AI courses	Create a better trained workforce to help the economy	Create a better trained workforce to help the economy. • Government to provide free access to free courses on AI for people to work in AI environments. • Have AI as a new subject in school.

Appendix 6: Participants' evaluation of Space, Voice, Audience, and Influence.

	Detail	1 ⭐	2 ⭐	3 ⭐	4 ⭐	5 ⭐
Space	*I felt comfortable giving my opinions*				30.4%	69.6%
Voice	*I got the chance to give my opinions*			13%	17.4%	69.9%
Audience	*I know who wants to hear our opinions*			8.7%	30.4%	60.9%
Influence	*I think what we said today will be taken seriously*		8.7%	17.4%	21/5%	52.2%

Open Comments	
The best thing about today was:	"The knowledge that I gained from the workshops and the people I met" "The atmosphere (and the food!) "Learning from the guest speakers and meeting new people." "To hear many different opinions and views and to experience new forms of AI." "Location, The workshops with debates, the discussions with like minded people after workshops on the prompts from the workshops and the great facilitators"
One thing you'd change from today's event	"Give more time for the workshops" "More chances to chat with different groups and move about." "I would maybe start off with an ice breaker before the welcoming speeches so that it's just that little bit less daunting to be meeting a bunch of new people and listening to the ministers or other government representatives talk so fluently about something you may not exactly understand"

More catering, I don't feel like there was sufficient food and tea/coffee considering how long the day was. The workshops were good on one hand to talk about different topics, but it was very difficult to hear our own group with all the noise going on"