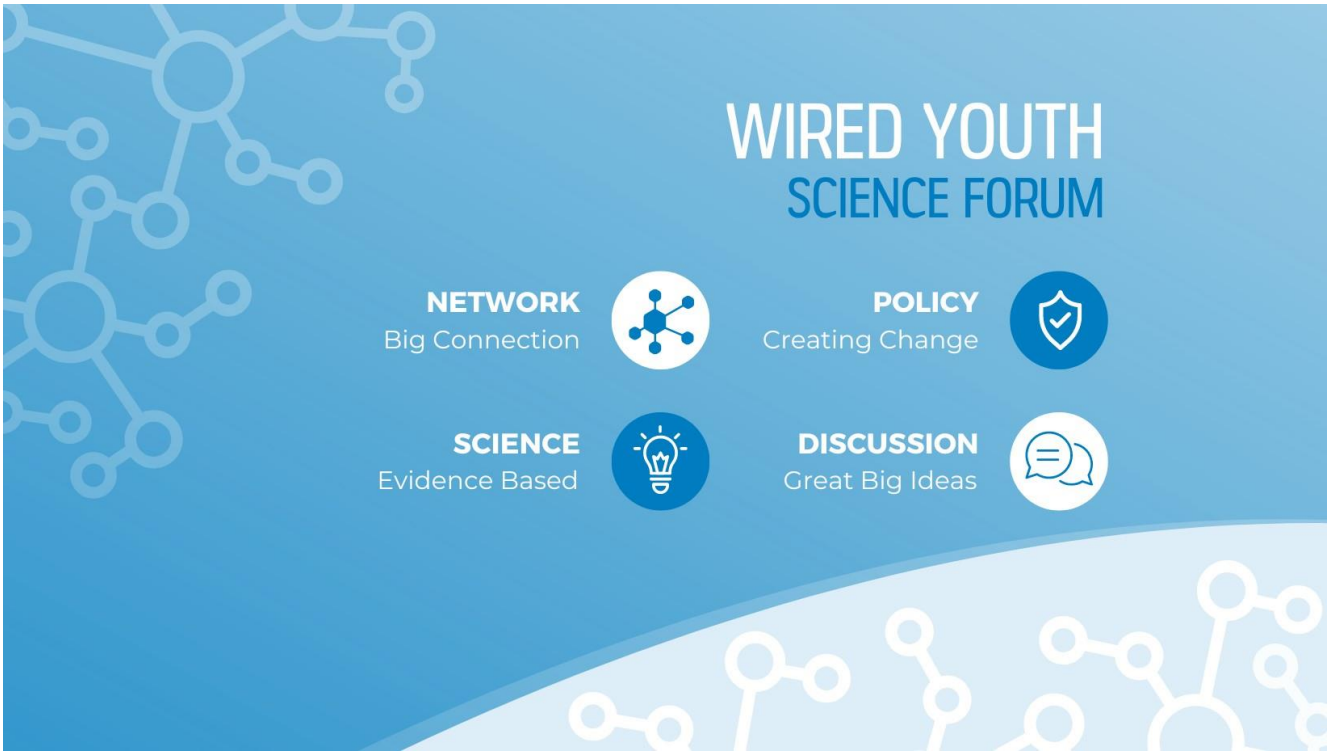
Youth Engagement in Shaping AI Policy: Insights from the Wired Youth Science Forum Project



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I. Executive summary

This policy paper explores the ethical implications, job market effects, and educational impacts of Artificial Intelligence (AI), informed by the Wired Youth: Science Forum project, funded by Erasmus+ (grant agreement no.: 2022-3-MT01-KA210-YOU-000096554). It consolidates key concerns and proposed solutions from Maltese and Greek students involved in the project. The paper calls for diverse data collection practices in AI development, a regulatory body overseeing data standards, and robust cybersecurity measures to address ethical concerns. Regarding the job market, the paper emphasises the need for AI education for young people, a comprehensive labour policy, and support for workers impacted by AI adoption. In education, the paper proposes solutions to address academic integrity concerns, teacher preparation for AI integration, and the responsible use of AI to enhance student learning.

II. Introduction

Effective policy making requires a foundation of sound evidence, gathered through research, data analysis, and stakeholder consultation (Head, 2016). Including the voices of young people in this process is critical. Youths represent a significant demographic with a vested interest in the future shaped by AI. Their unique perspectives, technological fluency, and innovative thinking can significantly contribute to evidence-based policy making (UNESCO, 2024).

The Wired Youth: Science Forum Project (grant agreement number: 2022-3-MT01-KA210-YOU-000096554) was an Erasmus+ funded initiative that ran from September 2023 to April 2024 in Malta and Greece. The project was led by the Malta Chamber of Scientists, in collaboration with Agenzija Zghazagh, Esplora and ScienceView. Recognising the crucial role of youth in shaping the future, the project fostered a platform for them to engage in critical discussions, identify key concerns surrounding AI, and propose solutions. This policy paper consolidates the insights gleaned from the project participants, highlighting the importance of evidence-based policy making that incorporates the perspectives of young people, who will navigate the world most impacted by AI advancements.

Several studies emphasise the value of youth engagement in policy making. A report by the European Commission's Joint Research Centre on "Youth in external action: bridging policies and data", published in 2022, highlights the importance of youth participation in policymaking (European Commission, 2022). Similarly, a policy brief by the United Nations (2023) underlines the benefits of youth engagement, including “promoting inclusiveness of policy processes, increasing legitimacy and ownership of

policy decisions, holding governments accountable to their decisions, and enhancing trust in government."

The Wired Youth: Science Forum project exemplifies the power of youth engagement. By actively involving young people, the project ensured that policy recommendations reflect the concerns and aspirations of a generation that will be directly impacted by an AI-driven world.

This paper explores the ethical implications, job market effects, and educational impacts of AI, drawing on the insights from the Wired Youth: Science Forum project. The following sections outline the concerns identified by the young participants and propose solutions informed by evidence-based policy making principles, while referencing relevant European Union (EU) policy initiatives. The EU itself recognises the importance of both AI and youth engagement, reflected in its recent policy efforts.

- The European Parliament's landmark AI Act, adopted in March 2024, is the world's first comprehensive AI regulation. It emphasises the need for AI systems to be safe, transparent, traceable, non-discriminatory, and environmentally friendly (European Parliament, 2023). This aligns with concerns raised by the Wired Youth project regarding data bias and the environmental impact of AI training.

- The EU Strategy on Youth 2019-2027, launched by the European Commission, outlines a framework for youth empowerment and participation across various sectors (European Commission, 2019). It highlights the importance of equipping young people with the skills and knowledge needed to thrive in a digital world, which aligns with the Wired Youth project's focus on AI education.

This paper demonstrates how youth engagement can inform policy making that addresses the challenges and opportunities presented by AI.

III. Analysis

A. Stakeholder identification

A workshop was delivered by experts in AI, namely Professor Alexiei Dingli, Dr Claudia Borg and Dr Dylan Seychell from the Faculty of ICT, University of Malta, who were selected on the basis of their research profile and expertise, following which youths

engaged in a brainstorming session during which the following stakeholders were identified:

1. For ethical implications of AI

a) *Policymakers:* To implement and enforce ethical AI practices, ensuring compliance with regulations and standards.

b) *AI Developers and researchers:* To ensure the ethical development and use of AI systems and algorithms, incorporating fairness, transparency, and accountability.

c) *Tech companies:* To integrate ethical principles into their AI products and services, promoting responsible innovation and protecting user rights.

d) *Data protection agencies:* To oversee the ethical handling of data within AI systems, safeguarding privacy and ensuring data security.

e) *Civil society organisations:* To advocate for ethical AI practices, representing public interests and fostering informed public discourse.

f) *Citizens:* To stay informed about AI and its ethical implications, actively participating in discussions and holding stakeholders accountable.

2. For AI and jobs

a) *Governments:* To develop and enforce policies that facilitate the integration of AI into the workforce, promoting job growth, reskilling opportunities, and economic advancement.

b) *Labour unions:* To advocate for workers' rights and ensure that AI adoption leads to fair employment practices, job security, and adequate training for new roles.

c) *Employers:* To implement AI technologies in ways that enhance productivity and create new job opportunities, while also providing training for employees to adapt to AI-driven changes.

d) *Educational institutions:* To offer programs and training on AI, preparing students and professionals with the skills needed to excel in AI-related careers.

e) *Workers:* To engage in continuous learning and skill development to adapt to AI advancements and capitalise on new job opportunities created by AI technologies.

3. For AI and education

a) *Educational policymakers:* To develop and implement policies that incorporate AI education into the curriculum, ensuring students are prepared for the future job market.

b) *Educators:* To teach AI concepts and applications, equipping students with the knowledge and skills needed for careers in AI and related fields.

c) *Students:* To engage in AI learning, gaining the expertise required to pursue future career opportunities

d) *Parents:* To support and encourage their children's education in AI, helping them prepare for future career opportunities and technological advancements.

B. Ethical implications of AI

1. Problem statement

The development and use of AI raises significant ethical concerns, including data bias, biassed decision-making by AI algorithms, privacy and data security risks, unclear ownership and control of data used in AI, difficulties in determining liability for harm caused by AI, limited access to evidence needed for redress in AI-related cases, the environmental impact of training AI systems, and the challenge of ensuring ethical implementation due to the rapid pace of AI development. Datasets that are narrow in their scope lead to algorithms that are trained to exclude people of certain ethnicities, demographics or socio-economic backgrounds, leading to AI-based racism and discrimination. Therefore, stronger efforts are needed to ensure inclusivity and diversity of AI. Moreover, the potential of unauthorised access to data leads to concerns over data privacy, requiring stronger efforts to ensure safeguarding of user data.

2. Benefits and drawbacks

Following the workshop with the aforementioned experts, the students participated in a brainstorming session where they discussed and listed the benefits and drawbacks of the ethical implications of AI.

Benefits

a. *Increased efficiency and productivity:* AI can streamline processes and reduce the time needed to complete tasks, leading to higher productivity and more efficient use of resources across various industries.

b. *Improved decision-making:* By analysing vast amounts of data quickly and accurately, AI can support more informed and timely decision-making, enhancing outcomes in areas such as healthcare, finance, and logistics.

c. *Enhanced automation in various sectors:* AI enables the automation of repetitive and mundane tasks, freeing up human workers to focus on more complex and creative activities, which can lead to greater job satisfaction and innovation.

d. *Potential for innovation and progress:* AI has the potential to drive significant advancements and breakthroughs in numerous fields, fostering technological progress and creating new opportunities for economic growth and development.

Drawbacks

a. *Exacerbation of social inequalities:* AI systems can inadvertently reinforce existing social biases and disparities if not carefully designed and monitored, potentially leading to unequal access to opportunities and services based on race, gender, socioeconomic status, or other factors.

b. *Privacy violations:* AI technologies often rely on vast amounts of personal data, raising significant concerns about data privacy and the potential misuse of sensitive information. Ensuring robust data protection measures is essential to safeguard individual privacy rights.

c. *Lack of transparency and accountability in AI decision-making:* AI systems can make decisions that are difficult to understand or explain. This lack of transparency can lead to challenges in holding AI systems and their developers accountable for errors, biases, or unethical outcomes.

d. *Environmental impact:* The training of AI systems requires substantial computational power, which consumes significant amounts of water and energy. This high resource usage contributes to a considerable carbon footprint, highlighting the need for more sustainable practices in the development and deployment of AI technologies.

3. Recommendations

Following workshops with esteemed experts and engaging brainstorming sessions, the youths have formulated the following recommendations:

a. *Promote diverse data collection:* Encourage data collection practices that ensure diverse demographics, socioeconomic backgrounds, and cultural contexts are represented in datasets used for training AI models to reduce the impact of AI-based racism and discrimination.
b. *Inclusive AI development:* Promote active participation of diverse individuals and groups in AI development to ensure inclusivity and avoid discrimination.
c. *Data oversight body:* Establish a regulatory body that promotes data quality standards with respect to diversity and inclusion for use in AI algorithm training.
d. *Strengthen cybersecurity:* Promote and enforce robust cybersecurity protocols and encryption mechanisms to prevent unauthorised access and safeguard user privacy.
e. *Regular privacy impact assessments (PIAs):* Require organisations to conduct regular PIAs to assess and mitigate evolving privacy risks associated with sensitive AI data whilst incorporating stakeholder input and external audits.
f. *Reducing the environmental impact:* Request for governments and organisations to invest in powering AI training with renewable energy, making the process more environmentally friendly whilst integrating ethical and sustainable AI training systems that prioritise the people and environment.

C. AI and jobs

1. Problem statement

The integration of AI into workplaces presents challenges related to job displacement, particularly for unskilled young people and inexperienced workers. Additionally,

concerns exist regarding the potential for AI to replace entire professions, widening the social class gap, unclear liability issues in cases of malfunctioning AI, the impact of AI on work ethic and creativity, and the potential psychological impact on workers.

2. Benefits and drawbacks

Following the workshop with the aforementioned experts, the students participated in a brainstorming session where they discussed and listed the benefits and drawbacks of AI and jobs.

Benefits

a. *New job opportunities in AI development and maintenance:* AI technologies create a demand for skilled professionals in areas such as software development, data analysis, machine learning engineering, and AI system maintenance, offering new career paths and opportunities.
b. *Improved working conditions through automation of repetitive tasks:* AI-driven automation can alleviate workers from tedious and repetitive tasks, allowing them to focus on more complex and creative aspects of their jobs. This can lead to improved job satisfaction, reduced workplace fatigue, and potentially lower rates of workplace injuries associated with repetitive motions.
c. *Increased productivity and economic growth:* By optimising processes and streamlining workflows, AI technologies can enhance productivity levels across various industries.

Drawbacks

a. *Job displacement and unemployment:* The adoption of AI technologies can lead to job displacement as automation replaces certain roles previously performed by humans. This can result in unemployment for individuals whose skills become obsolete or redundant in the evolving job market
b. *Increased social inequality:* AI adoption may exacerbate social inequalities by widening the gap between those who have access to education and skills required for AI-related jobs and those who do not. Additionally, disparities in access to AI technologies and resources can further deepen existing social divides.

c. *Changes in workforce dynamics:* The integration of AI into the workforce can reshape traditional employment structures and dynamics. This may involve shifts in job roles, skill requirements, and employment patterns.

3. Recommendations

Following workshops with esteemed experts and engaging brainstorming sessions, the youths have formulated the following recommendations:

a. *AI education for young people:* Provide AI education courses to young people and inexperienced workers to prepare them for potential job displacement scenarios.
b. *Comprehensive labour policy:* Develop a comprehensive labour policy to address the impact of AI on job markets and professions, including measures for retraining and reskilling workers.
c. *AI for small businesses:* Make AI more accessible to small businesses through financial incentives or subsidised access to AI tools and training, to bridge the social class gap and empower them.
d. *Regular maintenance and quality control:* Enforce regular maintenance checks and quality control measures for AI products and services to address liability concerns.
e. *Integrating AI in workflows:* Integrate AI decision-making processes into workflow protocols in a way that complements human expertise and encourages collaboration, to adapt to changing work ethics and maintain creativity.
f. *Educational system reform:* Reform education systems to prepare future generations for the AI era, by integrating AI concepts and fostering critical thinking skills to navigate a world increasingly shaped by AI.
g. *Introduce AI across production sectors:* Introduce AI across all production sectors strategically, considering the potential for job displacement alongside potential efficiency gains.
h. *Counselling services for workers:* Offer counselling services to workers affected by AI implementation to support their well-being during the transition period.
i. *Allowances for displaced workers:* Provide financial assistance and social safety nets for individuals who lose jobs due to AI-driven changes in the workforce.

D. AI and education

1. Problem statement

The use of AI in education raises concerns about academic integrity due to plagiarism from the incorrect use of tools such as ChatGPT and EssayGenius, amongst others. While AI has the potential to support student learning, it can also hinder it if used incorrectly or irresponsibly. To fully assist the education process, AI would have to be seamlessly integrated into the curriculum. However, many teachers lack adequate preparation for integrating AI into their teaching practices, and current curricula lack sufficient exposure to AI concepts. Additionally, concerns exist regarding the potential for AI to shorten students' attention spans, further requiring a change in the way material is presented to students. Moreover, the digital divide between European and developing countries could further disadvantage students in poorer regions.

2. Benefits and drawbacks

Following the workshop with the aforementioned experts, the students participated in a brainstorming session where they discussed and listed the benefits and drawbacks of AI and education.

Benefits:

a. *Personalised learning experiences:* AI can tailor educational content and experiences to individual student needs and learning styles, fostering a more effective and engaging learning environment.

b. *Improved access to educational resources:* AI-powered platforms and tools can provide students with access to a vast array of educational materials, regardless of their geographical location or socioeconomic background, promoting inclusivity and equity in education.

c. *Support for teachers in administrative tasks:* AI can assist teachers in managing administrative tasks such as grading, lesson planning, and student assessment, allowing them to focus more on providing quality instruction and mentorship to their students.

d. *Enhanced student engagement:* AI-driven interactive learning tools and platforms can increase student engagement by offering immersive and interactive learning experiences that cater to their interests and preferences, thereby fostering a deeper understanding and retention of the material.

Drawbacks

a. *Over-reliance on AI tools:* While AI tools offer valuable support in generating content and completing tasks, there is a risk of over-reliance leading to a lack of critical thinking and originality.
b. *Increased screen time and decreased attention spans:* The integration of AI technologies in education may lead to an increase in screen time for students, potentially contributing to decreased attention spans and digital fatigue. It is crucial to balance the use of AI tools with offline activities and promote mindful use of technology to mitigate these effects.
c. *Exacerbation of existing educational inequalities:* AI adoption in education may widen existing disparities in access to technology and digital literacy skills. Students from underserved communities or with limited access to resources may be further marginalised if equitable access to AI-powered educational tools and resources is not ensured.

3. Recommendations

Following workshops with esteemed experts and engaging brainstorming sessions, the youths have formulated the following recommendations:

a. *Develop AI guidelines for education:* Establish clear guidelines for the responsible use of AI tools in education to address academic integrity concerns and ensure student learning is prioritised.
b. *Teacher training on AI integration:* Provide training and support for teachers to effectively integrate AI tools into their teaching practices and leverage them to enhance student learning.
c. *Promote balanced use of AI:* Encourage a balanced approach to AI in education, where AI complements but does not replace traditional teaching methods and assessments. This can be achieved through frequent classroom-based assessments that test students' true capabilities and understanding.
d. *Tailor AI support for specific student needs:* Emphasise the importance of educators getting to know their students' strengths and weaknesses to identify areas where AI support can be most beneficial.
e. *Bridge the digital divide:* Implement initiatives to bridge the digital divide between European countries and developing countries to ensure equitable access to AI-powered educational resources.

V. Conclusion

Artificial Intelligence presents a complex landscape of opportunities and challenges. By acknowledging the ethical implications of AI development, proactively preparing for its impact on the job market, and embracing its potential to enhance education, Europe can ensure responsible AI integration that benefits all its citizens. Continued dialogue and collaboration between policymakers, industry leaders, educators, and young people are crucial for navigating the future of AI and ensuring it serves humanity's best interests.

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