October 2024

Response to the *Call for Contributions*: *Artificial intelligence in education and its human rights-based use at the service of the advancement of the right to education* by the UN's Special Rapporteur on the right to education

Please provide examples of how AI tools and systems, including generative AI, are used in the education process and related decision-making in your country, organization or educational institution, with examples of specific software where relevant.

We are pleased to provide examples based on the information provided in the UK Department for Education (DfE) *GenAI in Education Call for Evidence: summary of responses on Gen AI*.[1] These examples include the use of AI tools and GenAI in education and related decision-making for several purposes:

- **creating or enhancing educational resources** (e.g., Canva, Midjourney, ChatGPT and Google Bard are used for creating teaching materials, visuals, presentations, and quizzes; planning lessons and curriculum);

- **administrative tasks** (e.g., summarizing meeting minutes, creating policy documents, improving efficiency);

- **creativity and engagement in classrooms**, AI is used to generate examples, explain complex concepts, and support activities like prompt engineering;

- **assessment, marking, and feedback** (e.g., using AI tools (including GenAI) to detect plagiarism, help write student reports, create marking rubrics, providing real-time feedback to students);

- **personalized learning** (creating customized materials for catering needs of SEND (Special Educational Needs and Disabilities) and EAL (English as an Additional Language) students);

- **AI as virtual tutor** (e.g., offering one-on-one support and enabling self-directed study, particularly used by children with learning disabilities).

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[1] DfE reported that the total number of respondents to the Call for Evidence in the consultation was 567. The geographic breakdown was "80% of responses were from the UK and the remainder split between various international countries. This included the USA, Hong Kong, India, Indonesia, Oman, Austria, among others. Some international responses were from organisations that operate across jurisdictions, including in England and abroad." https://assets.publishing.service.gov.uk/media/65609be50c7ec8000d95bddd/Generative_AI_call_for_evidence_summary_of_responses.pdf

Moreover, GenAI is used to generate ideas for projects, scriptwriting for drama, and creating digital artwork, helping student engagement. Notably, while AI use for these purposes was noted, respondents also highlighted several problems such as inaccuracies, poor quality outputs, data protection risks, and suspected academic misconduct among other challenges.

Note that the Digital Futures Commission's (DFC)[2] education data workstream explored current uses of EdTech in schools and their impact on education in the eyes of teachers and schools. This mapped exercise of the technology landscape in schools. Although our focus was not AI-specific, technologies used in schools (notably, most of these technologies use AI) were used for educational, administrative and safeguarding purposes. As regards educational purposes, we found that technologies are used in learning environments and knowledge management (e.g., Google Workspace); specific subject applications (e.g., OAK National Academy), Video conferencing, video watching (Teams, YouTube); and Quizzes and feedback (e.g., Kahoot!).[3]

> Please provide specific evidence of the known impact of AI tools and systems on learners and teachers and on education systems in general, both positive and negative and explain how the impact is monitored. For example, how does the use of AI affect: persons with special learning needs, learners with different linguistic and cultural backgrounds, women and girls; access to education of populations marginalized or underserved due to ethnicity, socio-economic status, displacement and other factors; human interaction between teachers and students; students' and teachers' human rights, privacy, safety, engagement, agency and critical thinking; perpetuation of stereotypes and inequalities; the type of information or disinformation that learners and educators are exposed to; assessment of learning; education management.

We address several of the above-given examples, separately or in combination:

- AI can affect different groups of children differently and has the potential to make both a positive and negative impact on children's daily lives, also addressing or on the contrary exacerbating existing inequalities. A child-rights-respecting, fair and inclusive approach requires careful consideration of its impact on different groups, including gender equality and intersectionality considerations.

- Regarding the impact on persons with special learning needs, learners with different linguistic and cultural backgrounds, women and girls there are both opportunities and risks of using AI in education. As for positive examples, some of

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[2] The Digital Futures Commission has now concluded. Our new project is the Digital Futures for Children centre, joint with 5Rights Foundation and London School of Economics and Political Science. https://digitalfuturescommission.org.uk/ This joint LSE and 5Rights centre facilitates research for a rights-respecting digital world for children. The Digital Futures for Children centre supports an evidence base for advocacy, facilitates dialogue between academics and policymakers, and amplifies children's voices, following the UN Committee on the Rights of the Child's General comment No. 25. https://www.digital-futures-for-children.net/home

[3] https://digitalfuturescommission.org.uk/wp-content/uploads/2022/06/Education-data-reality-report.pdf

the commonly used AI tools such as Duolingo can promote personalized learning for children with different language needs (e.g., Google Translate, spell-check/auto-correct tools) help accessibility, particularly useful for students with protected characteristics (e.g., dyslexia).[4] However, while AI tools could promote accessibility and create opportunities to address some of the challenges children with protected characteristics already face, this is not the full picture. For different linguistics backgrounds, research already showed significant risks relating to bias and discrimination.

- With the increasing use of GenAI, educational institutions and students had to quickly adapt to manage issues like plagiarism, often overlooking the potential impact on how these bias aspects of AI-detection tools affect the relationships between school, teachers, students and parents and power dynamics in the education sector. Notably, the negative impact on trust can affect children's education, well-being, and motivation to engage in education.

- Regarding assessment of learning, notably students' assessment outcomes may be affected by inaccurate and unreliable systems that flag work as AI-generated. This issue impacts different groups of students differently, meaning the level of impact is not the same for all children and this can result in exacerbating existing vulnerabilities certain groups of children might have and resulting in inequalities. Studies show that these AI tools can lead to unfair bias and inaccurate results, for example, in the context of AI detection tools that flag work as AI-generated (e.g., flagging from non-native English-speaking students were more often than that of native English speakers).[5] These tools lead to negatively affect children's educational experiences and the trust between students and schools. This is a significant concern that needs to be addressed in the context of children's right to education and also has legal implications for the right to data protection and protection from non-discrimination.

- Notably, Ofqual recently clarified that using AI as a sole marker of students' work is against the law and is problematic due to the lack of a human-based judgement to be used in marking and the potential for bias, inaccuracies and a lack of transparency in how marks are awarded can result in unfairness.[6] Overall, we support Ofqual's approach that while there may be opportunities for AI to complement human marking, we should approach it with precaution and there is a need for compelling evidence and accountability rules including assurance of the use of AI and data processing in that context is fair, transparent and in children's best interests.

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[4] https://publications.jrc.ec.europa.eu/repository/handle/JRC129099
[5] https://hai.stanford.edu/news/ai-detectors-biased-against-non-native-english-writers
[6] Ofqual's approach to regulating the use of artificial intelligence in the qualifications sector - GOV.UK (www.gov.uk)

- Regarding access to education of populations marginalized or underserved due to ethnicity, socio-economic status, displacement and other factors: AI tools can help students coming from diverse backgrounds and create accessibility and equality by design for children. Children can have access to quality education, particularly for students in remote or underserved areas who may not have access to a diverse range of educational resources. On the other hand, AI tools, like other technologies, may not be equally accessible to all. Schools and individuals in developing countries or regions with limited resources may lack the infrastructure and resources or adequate skills and knowledge about the use of AI tools in education. Crucially, data and AI literacies are equally important, unless vulnerable groups of children are catered and thought and empowered it is unlikely that the benefits will be enjoyed. This would impact children's right to education, and development while also affecting their enjoyment of their right to data protection.

- Regarding students' and teachers' human rights, privacy, safety, engagement, agency and critical thinking: We would like to highlight that the impact on child rights is not a topic of consideration only in itself but should be reflected on any `impact` issue mentioned under this call for contributions. It is beyond question that both positive and negative impacts have implications for child rights. As such, we strongly highlight the urgent need to mainstream a child rights-based approach to all considerations regarding the impact of AI in education.

- In our experts' roundtable report[7], we found that there are significant concerns about using AI tools in education settings considering the unknowns and uncertainties about the claimed benefits of AI tools and their impact on children's lives in the short and long term and their implications for children's enjoyment of their rights. We believe it is crucial for policy and legal frameworks to explicitly refer to internationally recognized child rights impact assessment (CRIA) frameworks. This assessment is particularly relevant to make sure that the claimed educational benefits are evidence-based, support children's enjoyment of their right to education, and carefully consider the impact of the use of specific AI systems and data processing within that context can create for children's rights from a holistic point of view.

- The value of this approach could be seen if we consider the claimed benefits of using facial recognition technologies and emotion AI in educational settings, particularly for the benefit of children with disabilities and additional needs. However, on the other hand, risks attached to the use of such AI systems also increase for such groups and become crucial when considering the impact on children's education and rights in general. Such practices can undermine children's

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[7] https://digitalfuturescommission.org.uk/wp-content/uploads/2021/11/Roundtable-report-25112-final.pdf

rights, including right to freedom of expression, freedom of thought and non-discrimination.[8]

- In our DFC research, we explored how EdTech is currently used within schools, and identified problems that undermine children's best interests when it comes to EdTech and the use of education data that is not always used to enhance children's right to education and create disproportional risks vs benefits. According to teachers, the actual benefits of EdTech and the data processed from children in schools were not discernible or in children's best interests. The teachers and school staff reported limited added value of EdTech or the insights that could be extracted from the data processed by the EdTech in use without appropriate analytics skills required from teachers or school staff. Although our focus was not AI-specific, notably, in our review of the EdTech landscape from the interviews conducted for the education data workstream, most of these EdTech tools are AI-driven and have an impact on children's education and daily lives.[9] Overall, we found across different studies conducted over the past three years that children's enjoyment of rights including but not limited to the right to privacy, education, and protection from commercial exploitation is being undermined by data processing activities carried out in the deployment of data-driven EdTech (including AI tools).[10]

- The DFC research also found that the impact on children's learning, education and future lives is beyond clear. Our research focused on beneficial uses of education data and EdTech governance (including but not limited to AI-driven EdTech), experts' insights showed that there are significant unknowns and concerns about the lack of independent research-based evidence about how use of AI and data processing within this context in education will affect children in short and long term and what this means for their best interests and child rights. Crucially, we strongly advocate any assessment or evaluation of "impact" to involve children themselves since research shows that the experiences of children can be significantly different from adults' assumptions made on behalf of children and decisions about what is in children's best interests and what might have a positive impact on their right to education.

- Regarding monitoring the impact, our research shows that evidence-based and robust monitoring is far from being the reality in the current applications. However, when monitoring a child rights-respecting approach should be adopted. We refer to the 5Rights Foundation work on `Shedding light on AI – A framework for algorithmic oversight' providing practical steps of AI oversight (the '4 Is') that can be used by actors in diverse sectors including education to mitigate the

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[8] https://kluwerlawonline.com/journalarticle/Global+Privacy+Law+Review/4.1/GPLR2023002
[9] https://digitalfuturescommission.org.uk/wp-content/uploads/2021/06/Governance-of-data-for-children-learning.pdf
[10] https://digitalfuturescommission.org.uk/beneficial-uses-of-education-data/

harmful impacts of AI systems on children.[11] This also gives regulators a clear way to inquire, analyse and assess whether a system is conforming to standards. And it can help them to develop practical insights which can support the process of monitoring.

To conclude, we would like to stress that the use of AI in education can significantly affect children's enjoyment of their rights under UNCRC. Despite their potential to enhance children's learning experiences, there are also risks particularly the right to privacy, protection from economic exploitation, and right to non-discrimination among others. Crucially, even though AI brings additional challenges and new ways that we see undermining child rights, it is crucial to note that most of the negative effects were also there. Data-driven technologies used in education remain relevant in the discussions around how the use of AI affects children's educational experiences.

We argue for avoiding generalizing AI use in education and adopting a case-by-case approach towards different types of AI since risks and benefits could depend on the type of AI technology and the purpose for which it is used in educational settings. For example, the risks of Emotion AI use to support children with learning disabilities would be different than the risks of an AI-driven math application that provides personalized content to each student depending on their level. As such, we stress the need to put a child rights lens to discussions on impact considerations in today's digital world and adopt a more holistic view of AI and education through the lens of General comment No 25. We also highlight the need for CRIAs to understand potential positive and negative impacts and adopt a more holistic approach in assessing how current uses and potential future uses of AI in education can affect children.

Please provide examples of legislation, regulations (including codes of conduct or institutional rules) or policies addressing or covering the use of AI in an educational context, including ethical or human rights concerns around AI development and use, data privacy, bias mitigation, transparency, academic integrity, plagiarism and proper attribution. Is due diligence mandated for the use of AI in an educational context? Do students have clear guidance for citing AI usage?

- The EU AI Act[12] is the first AI regulation that recognizes children's rights in the digital environment as set out in the General comment No. 25 to the UN Convention on the Rights of the Child. The AI Act sets out several provisions specifically referring to children, including banning any AI system that exploits the vulnerabilities of age and requiring high-risk AI systems including AI used in education to take special account of children and their rights as they undertake robust risk management processes.

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[11] https://5rightsfoundation.com/Shedding-light-on-AI---a-framework-for-algorithmic-oversight.pdf
[12] https://data.consilium.europa.eu/doc/document/PE-24-2024-INIT/en/pdf

- The UK's approach to AI regulation in EdTech is a principles-based framework that leverages existing regulatory structures while promoting innovation and addressing potential risks. This approach is supported by comprehensive data protection laws and sector-specific guidance to ensure the responsible use of AI in education. Most notably, the UK Data Protection Act and UK GDPR governing the processing of personal data and the UK Age Appropriate Design Code (AADC), also known as the Children's Code, are highly relevant to the intersection of education and AI, particularly in the context of protecting children's data and ensuring their best interests by design and by default while addressing equality law considerations aligned with Equality Act 2010, which also apply to design, development and deployment of AI systems in the education sector.

These legal and policy frameworks cover broader aspects of data processing, design, development and deployment of AI systems in educational settings. Unfortunately, clear guidance for citing AI usage is not included in these frameworks. However, we would like to highlight that the critical question here shouldn't be limited to providing guidance to students for citing AI usage. Students might not even realize that they are using AI sometimes, AI is integrated into many daily EdTech used in students' daily lives (e.g., Google, and Microsoft products). Moreover, these tools allow students to have add-ons on Microsoft Word or Google Docs using software such as Grammarly, which is known to be a grammar-checking tool but has been found to use AI in the background putting students at risk of causing academic integrity questions in schools. Crucially, the question here should be about data and AI literacy and putting responsibilities on companies that provide these services.

Our research showed that putting responsibilities on schools does not work and only puts more burden on schools, teachers, parents and children, there needs to be a change in the approach towards addressing key challenges such as transparency and fairness from the design stage of AI systems and ensuring that companies who design these technologies and carry out data processing are responsible and have guidance on how to do it in a lawful, fair and ethical way. An example, which is not AI-specific, but crucial in the implementation of UK GDPR, is the AADC which can set an example of how to make more concrete these obligations.

Overall, we argue that a child rights-centred approach is needed in any consideration regarding the impact of AI use in education and to address these challenges and ensure children can benefit from innovation, broader and crucial aspects must be considered. Implementing CRIAs could be a step in the right direction to ensure these issues are adequately addressed.

Please provide examples of the participation of teachers, parents, students or communities in the development of nationwide or internal regulations addressing the use of AI in education. What has been the feedback from teachers, students and parents? Are there mechanisms in place to solicit such feedback?

Below we share some recent developments from the UK in engaging stakeholders and addressing issues raised in calls for consultations and during different stages of policy and regulation developments of particular relevance to data processing and AI technologies used in education.[13]

- The Department for Education (DfE) has taken proactive steps to explore the possibilities of AI through various initiatives in their Oct 2023 policy paper Generative Artificial Intelligence (AI) in education such as:

- Call for Evidence: A DfE initiated a call for evidence to gather insights from educational professionals, academics, and the edtech sector regarding the use of AI, particularly generative AI, in education. Interestingly, responses have revealed optimism about AI's potential to reduce administrative tasks and personalize support for learners;

- Hackathon: A two-day hackathon which brought together teachers, school leaders, and data scientists to collaborate on AI solutions, aimed at addressing real-life challenges in education, such as teacher workload. The outcomes of this event are expected to inform future strategies in AI implementation.

- Investment in AI Tools for Education Platforms: The DfE has allocated funds to support Oak National Academy, an online learning platform, in integrating AI-powered features like lesson planners and quizzes. This investment aims to provide teachers with innovative resources to enhance their teaching effectiveness.

Notably, there are several law and policy frameworks that include the voices of diverse agents including children. For example, the ICO provides an Annex to the AADC that sets out guidance on key considerations relevant to different ages.[14] This work has been developed drawing upon responses to the ICO's call for evidence on the AADC, ICO-funded research at the London School of Economics which engaged diverse stakeholder groups and most importantly children themselves which can set a best practice example for policy and legislative framework developments in different countries.

This consultation response draws on the DFC's work and has been prepared by Ayca Atabey, DFC consultant and University of Edinburgh.

Please contact the DFC at this email: info@dfc-centre.net

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[13] Educational technology: Digital innovation and AI in schools - House of Lords Library (parliament.uk)
[14] https://ico.org.uk/media/about-the-ico/consultations/2614762/age-appropriate-design-code-for-public-consultation.pdf