Written Response to the Education Committee: The Use of Artificial Intelligence and EdTech in Education

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About the Authors

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Executive Summary

This written evidence is submitted on behalf of a multidisciplinary University of Southampton team, whose findings draw on the *Talking Itchen* outreach project, an eight-session programme in which three PhD students worked with nineteen home-schooled neurodivergent children aged seven to fifteen. Spanning the disciplines of AI, electronics, and law, the project centred on river conservation activities in Southampton and gave the University team direct, hands-on experience of the practical realities of working with neurodivergent children, as well as the considerable challenges parents face in delivering a high-quality home education. The evidence addresses four key questions concerning AI and EdTech in home education, with particular focus on neurodivergent learners, examining both the regulatory landscape and the practical ways in which artificial intelligence can be harnessed to support them.

Our core finding is that AI holds significant potential to personalise and enrich learning for this group, but that this potential is currently undermined by three structural gaps: **the absence of AI guidance in existing Department for Education materials for home-educating parents; the lack of any funding framework to support AI access or parental training; and the influence of parental attitudes, including misinformation exposure and concerns about sustainability, on children's engagement with these tools**. The *Talking Itchen* project demonstrated that contextualised, community-based AI introduction, which is grounded in purposes children already care about, is considerably more effective than abstract technology-first approaches, and that neurodivergent learners respond particularly well to self-directed, interest-led environments of this kind.

We make four principal recommendations: that the Department for Education's Guidance for Parents be updated to include AI guidance; that funding frameworks be revised to address training, tool access, and AI-generated materials; that the Guidance incorporate case studies of successful community-based EHE models; and that dedicated research be commissioned on AI's role in supporting neurodivergent home learners, with sustainability considerations explicitly embedded.

Policy Recommendations

1. Review the Departments' of Education Guidance for Parents to include a section of artificial intelligence, and the scope and limitations of its use in home-schooling practices. A better understanding of how parental attitudes towards AI, including justice sensitivity, sustainability concerns, and prior misinformation exposure, shape children's engagement with these tools is needed - alongside practical guidance on how families can critically evaluate and constructively adopt AI in their home-schooling practice.

2. Revision of the funding guidance for local authorities is needed. If parents are expected to receive training on AI, it should be defined how they can access one, and who would be responsible for developing the curriculum, organising, and funding of such training. Another issue arises with the use of AI for generation of personalised teaching materials, and how the funding for such purposes should be treated. These funding questions are addressed further in the response to Q.1 below.

3. Revision of the Guidance for Parents, where the sections of a case studies with the community building may be presented. The communities of EHE members can be a supportive group and help children to socialise outside of schooling facilities, thus, having successful case studies, may motivate other groups to be established. By bringing the examples of community groups that formed around local and/or nature conservation practices, the government can provide the showcases, where the education is combined with the multidisciplinary hands-on experience of local projects, which complement both home-schooling and the local community.

4. Creation of research on how AI can complement the quality of education for neurodivergent children by tailoring exercises and contexts to their needs can be the supportive guidance for both schools and home-schooling practices. It is also essential to highlight the need to balance between adoption of new technology and sustainability of utilising these resources - understood here as multi-dimensional, encompassing the environmental cost of running AI tools, the economic accessibility of such tools for families with limited resources, and the long-term pedagogical viability of integrating AI into home-schooling practice.

Detailed Response to Questions

Throughout this submission, the terms *home education* and *home schooling* are used in distinct senses, and this distinction is relevant to the Committee's consideration of the evidence. *Home education* is the broader category. It refers to any arrangement in which a parent or guardian takes responsibility for their child's education outside of a registered school setting, as provided for under Section 7 of the Education Act 1996. It encompasses a wide range of approaches, from highly structured curricula delivered by parents to entirely child-led, interest-driven learning, and, critically, it need not resemble school in its methods, pace, or content at all.

Home-schooling, by contrast, implies a more deliberate replication of the school model within the home environment: structured timetables, subject-based teaching, and assessments that broadly mirror what a child would encounter in a formal setting. It is a subset of home education, and while it is the approach most familiar to policymakers and the general public, it represents only one point on a wide spectrum.

This distinction is particularly significant in the context of neurodivergent learners. Many families who elect to remove their children from formal education do so precisely because the school model - with its fixed structure, sensory environment, and social demands - was not meeting their child's needs. For these families, *home schooling* in the replicative sense may be neither the goal nor the appropriate framework. The 'Talking Itchen' project engaged with families who largely fall into this category: their approach to education was self-directed, community-embedded, and responsive to the children's interests, closer to what the literature terms *elective home education* (EHE) than to home schooling in its conventional sense. Where this submission uses *home schooling* in reference to existing literature or common usage, it should be understood within this broader definitional context.

Q. 1. How the increasing use of AI in education affects children who are taught at home? Do children who are home-educated have sufficient access to these tools and the opportunities they present, or whether they are at risk of being left behind their peers in more formal settings?

In the UK, the legal framework for elective home education is primarily based on Section 7 of the Education Act 1996, which requires parents to ensure their child receives a suitable education. As of the latest release, within the autumn term 2025/26, there are 126,000 children in elective home education (EHE), whereas, in the previous autumn term, there were 117,700 children. 175,900 children were EHE at any point during the 2024/25 academic year.[1] Thus, it is getting evident that the number of home educated students has grown steadily over the past years.[2]

However, as there are no legal requirements for the parents to follow the National Curriculum, that poses an issue for distribution of the essential skills within the scope of AI for home-educated children. Furthermore, the non-statutory guidance on elective home education is not legally binding. Moreover, since education is a devolved matter, the exact guidelines differ slightly between England, Scotland, Wales, and Northern Ireland. Local authorities in each

[1] Department for Education. *Elective home education: Autumn term 2025/26*. London: Department for Education, 2026. <https://www.gov.uk/government/statistics/elective-home-education-autumn-term-2025-to-2026>

[2] Department for Education. (2023a). *Elective home education: Understanding the numbers*. https://www.gov.uk/government/publications/elective-home-education/

region also have different procedures for monitoring and supporting home-educated children. This guidance scarcity is also present in the current version of the Parental Guidance, which does not contain any information on the usage of AI, and possibilities for training to use such technologies. Similarly, there is no content on AI on the councils' website related to home education. Thus, having the lack of guidance, and suggestions on how technology can benefit the education and prospects of children, shows the access gap between home and school educated children even without consideration of personal biases of parents that might impact their interest in using such technologies at all. Those biases are, in fact, something that we have observed during the course introduction.

There is a lot of speculation and misinformation around AI, and some parents have a radically negative position towards this technology. This would apply for neurodivergent families who have traits of justice sensitivity and need to know how the usage of such emerging technologies would impact their children, as well as how that strategy of using AI in education would align with sustainability goals. It is also well-known that home education places significant demands on parents, including time commitments and the need for pedagogical knowledge. These challenges are especially compounded for families with limited resources or those supporting children with complex needs (Nelson, 2014). So, it is quite important not only to explain to parents how technology is being developed, and used sustainably, but also how such tools can be aligned with pedagogical necessities that pose a significant improvement of the educational process. Furthermore, some parents express a need for clearer guidance and financial support from governments (Lees & Nicholson, 2017; Zhang & Gibson, 2024). This need is ever so valuable for AI tools, as the main challenge would lie between offering an equal accessibility to such tools for both school and home-educated children, and financial limitations intertwined with biases, which would lead to home-schooled children being left behind in terms of AI adaptability. So it is advised to question if this would still enable the child, upon reaching adulthood, to function as an independent citizen, aligned with fundamental British values, being connected to peers, and ready for being competitive on the reshaping labour market.

The question of parental attitudes also intersects with a wider gap in guidance and financial provision. Currently, local authority funding frameworks do not account for AI-related costs in home education, whether for parental training, subscriptions to AI tools, or the generation of personalised teaching materials. It is therefore recommended that the Department for Education, in revising its guidance, addresses three interrelated questions:

1) who is responsible for developing any AI training curriculum for home-educating parents;
2) through what mechanism such training would be delivered and funded;
3) and how the use of public funds for AI-generated educational materials should be treated and reported.

Without clear answers to these questions, the access gap identified above will persist regardless of how well the guidance itself is written.

Q. 2. In which way the AI is reshaping learning and education for home-schooled, neurodivergent learners of all ages?

Where the access and funding conditions described in Q.1 are met, AI can become a breakthrough technology that provides a better quality of education for home-schooled neurodivergent learners. In Changing Our Minds (Fisher, 2021), Dr. Naomi Fisher, a clinical psychologist, argues that many children, especially neurodivergent learners, thrive in self-directed environments free from the pressures of traditional school structures. Based on our

course experience and general knowledge of neurodivergent children's behavioural patterns, AI can become a useful tool for better topic customisation and special interests context building for educational purposes. This potential was directly observable during the Talking Itchen sessions. At the outset, the majority of children and their parents held strongly negative views of AI, shaped largely by media narratives portraying the technology as harmful or malevolent. A significant portion of the early sessions was therefore spent explaining the underlying mechanisms of AI and, critically, reframing the question: rather than asking whether AI is good or bad, participants were invited to consider how human decisions determine whether the technology is used to worsen or improve outcomes. By the end of the programme, most children demonstrated a noticeably broader understanding of the possibilities the technology presents. Some, however, retained their opposition — and it was evident that these positions were closely tied to the attitudes of their parents, reinforcing the observations made under Q.1 regarding the role of parental bias in shaping children's engagement with AI. Importantly, AI was not introduced as an abstract subject but as a tool with direct relevance to the children's existing conservation work: it was used to illustrate how the group's river monitoring activities could be amplified, how their findings could be communicated to wider audiences, and how the project could, in their own words, give a voice to the River Itchen as part of a broader effort to reconnect with local nature and support public outreach. This contextualised introduction by grounding AI capability in a purpose the children already cared about, proved considerably more effective at building genuine engagement than a technology-first approach would have been. However, as it was argued in Q.1, it is important to correctly outline the benefits of AI use and the impact on sustainability before families would gain enough interest to widely adopt AI in the design of educational processes.

Q.3. How content is personalised and assessed, and how emerging skills are developed?

Contrary to the stereotype of isolation, UK adolescents in home education develop meaningful peer networks through clubs and cooperative groups where parents share teaching responsibilities or organise extracurricular activities (Zhang, 2024). These networks foster a sense of community and provide additional resources, including access to specialised tutors and group learning opportunities (de Carvalho & Skipper, 2019; Sabol, 2018). Such a group of the Young Guardians of River Itchen is a perfect example of how children's socialisation can be built and evolve around local community needs and conservation practices. The content personalisation and skill development that AI enables is therefore most effective not in isolation, but when embedded within precisely this kind of structured community context, where shared purpose provides the motivational scaffold for learning. During the Talking Itchen sessions, topics such as AI, electronics, and environmental law were introduced not as abstract subjects but as tools relevant to the children's ongoing conservation work, which visibly increased engagement and contextual understanding across the group. It is therefore recommended that the Department for Education revises its Guidance for Parents to include a dedicated section of case studies illustrating how EHE communities have organised successfully around shared local interests. The River Itchen group offers one such model, demonstrating how voluntary collaboration between home-educating families, local conservation bodies, and university outreach teams can generate multidisciplinary, hands-on learning environments that are both educationally rigorous and particularly well-suited to the needs of neurodivergent learners. Including such examples within official guidance would signal to other families that community-based EHE is a recognised and valued approach, and may encourage the formation of comparable groups elsewhere.

Q. 4. The availability and quality of digital literacy education. The extent to which learners are supported to use AI safely, critically and responsibly as part of their education? How can

the education system support learners to develop the skills and knowledge needed for responsible digital citizenship?

There is limited understanding of how home educating families in the UK structure their children's learning, the extent to which they adapt or adopt international educational approaches, and how these choices influence learner engagement and achievement. Furthermore, effective strategies for supporting home-educating families, particularly those with children who have special educational needs, remain underexplored[3]. This absence hinders both theoretical development and practical understanding of the diversity within home education in the UK, especially considering the growing number of families choosing to home educate. A systematic exploration and typology of educational methods in the UK context is therefore needed to bridge this gap.

In conclusion, rather than prescribing changes to existing communities of practice, it is essential to focus on ensuring that families who choose home education are not disadvantaged in terms of access to resources, information, or opportunities for collaboration within the scope of AI development. Possible initiatives could include making educational materials more widely available, creating optional opportunities for professional development, and facilitating voluntary partnerships between home education networks and formal educational institutions, as our own example is showcasing, in ways that respect the autonomy and preferences of home-educating families. Crucially, respecting that autonomy does not preclude equipping home-educated learners with the digital literacy skills needed for responsible AI citizenship; on the contrary, it requires that such skills be made accessible in forms that families can adopt voluntarily, critically, and on their own terms.

(April 2026)

https://doi.org/10.5258/SOTON/PP0181

[3] Zhang, K.C. and Gibson, L. (2026) 'Beyond Education and Care: Reframing Elective Home Education as a Multifaceted Approach', *Journal of School Choice*, Ahead of Print, pp. 1-19]. Available at: https://doi.org/10.1080/15582159.2026.2623685