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Oak National Academy's Aila, Education AI Companies and the Anthropomorphising of AI

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ABSTRACT: The integration of artificial intelligence (AI) in education is becoming increasingly prevalent, with educational AI companies employing diverse marketing strategies to engage educators. This paper investigates the extent to which these companies utilise anthropomorphic language on their websites as part of their communication, focusing on how such language shapes perceptions and expectations among educators. The research centres around Aila, an AI tool developed by Oak National Academy and endorsed by the Department for Education (DfE) in 2025, alongside four prominent private education AI companies. Using the AnthroScore tool, which quantifies anthropomorphic language, the paper reveals that all examined companies employ varying degrees of anthropomorphism in their external communications. While such language can foster engagement and encourage adoption, it raises critical ethical questions regarding the potential for misleading users about the capabilities and limitations of AI. The findings underscore the importance of transparent communication, particularly in light of the DfE's endorsement of Aila, which legitimises the use of AI in educational settings. This paper calls for a movement away from the use of anthropomorphism of educative AI tools and instead asks how AI developers can market AI as a co-creator of knowledge to expand the boundaries of co-agentic inquiry.

Keywords: anthropomorphism, education AI (artificial intelligence), marketing

1. INTRODUCTION

In recent years, the rapid evolution of artificial intelligence (AI) technologies has prompted a profound shift to a more algorithmic society (Shankar, 2018) across various sectors, notably in education (Adel, 2024; Liu *et al.*, 2020; Yadav and Shrawankar, 2025). As educators and institutions increasingly integrate technologies such as AI into their teaching and learning frameworks (Laura and Hannam, 2018), the discourse surrounding these technologies has also evolved. One intriguing aspect of this discourse is the phenomenon of anthropomorphising technology (Duffy, 2003) whereby human traits, emotions, and intentions are attributed to non-human entities – often with the aim of enhancing service quality (Yoganathan *et al.*, 2021, service experience (McLeay *et al.*, 2021) and usage intention (Xu *et al.*, 2020). This tendency is particularly prevalent in the context of educational AI (Laura and Hannam, 2018) where

companies often market their products using human-like language and characteristics (Alabed *et al.*, 2022). The publication of the Department for Education (DFE) (2025) policy paper on generative AI in education includes the introduction and endorsement of Oak National Academy's new AI (Aila). Aila is described on Oak National Academy's website as an 'assistant' (Oak National Academy, 2025), and as such importantly indicates that the anthropomorphism of AI tools is not isolated to the private industry but is evident within education. This anthropomorphism of AI reflects a wider societal shift from technology being viewed as a tool used by actors to technological tools being themselves an actor in information exchanges (Kronemann *et al.*, 2022; Novak and Hoffman, 2019). Understanding this trend is crucial for comprehending how these technologies might be and are perceived and adopted in educational settings.

The integration of AI in education is not just a passing trend; it is becoming a foundational element of modern service industry practices (Adel, 2024; Liu *et al.*, 2020; Yadav and Shrawankar, 2025). In education, the integration of AI appears to embody personalised learning platforms (Laura and Hannam, 2018) that adapt to individual student needs to intelligent tutoring systems that provide real-time feedback (Abdelghani *et al.*, 2023; Grasse *et al.*, 2023; Richter *et al.*, 2019), leading to the presence of AI in classrooms expanding. This integration raises critical questions about how these technologies are framed and understood by stakeholders (Karanika and Hogg, 2020; Ryan, 2020), including educators, students, and parents. The language used to describe educational AI can affect not only user engagement but also perceptions of the technology's capabilities and limitations (Ryan, 2020; Xiao and Kumar, 2021; Złotowski *et al.*, 2016).

The paper examines how language shapes perceptions of artificial intelligence (AI), guide developers in ethical communication, and contribute to the broader discourse on AI's role in education. As AI technologies become increasingly integrated into educational settings (Abdelghani *et al.*, 2023; Grasse *et al.*, 2023; Richter *et al.*, 2019), understanding the nuances of language and representation is crucial. The framing of AI – whether as a human-like entity or as a mere tool – can significantly influence how educators, students, and stakeholders interact with these technologies (Karanika and Hogg, 2020; Ryan, 2020). By addressing this critical aspect, the paper not only highlights the implications of language but also provides actionable insights for educators and developers alike. This focus is particularly relevant given the recent publication of the DFE, (2025) policy paper on generative AI, making this paper a valuable addition to existing literature that often overlooks the linguistic dimensions of technology integration in education.

As educational AI continues to proliferate and with 42% of teachers now stating that they regularly use AI as part of their teaching (Department for Education (DfE), 2024; Teacher Tapp, 2023), understanding the implications of anthropomorphising these technologies becomes increasingly important (Laura and Hannam, 2018). By examining the shift from traditional object/tool language to more human-centric descriptions, this paper seeks to offer an

understanding of the underlying motivations of companies and the potential consequences for user understanding (Alabed *et al.*, 2022).

While the anthropomorphism of AI can enhance engagement and learning outcomes (Yoganathan *et al.*, 2021), it also raises ethical considerations regarding the responsibilities of AI developers and the potential for misleading users about the capabilities of these technologies (Ryan, 2020). The paper critically evaluates these ethical implications, situating them within contemporary discussions on responsible AI usage in education. By doing so, it contributes to a growing body of literature that advocates for transparency and ethical considerations in technology development (Deshpande *et al.*, 2023).

2. BACKGROUND: ANTHROPOMORPHISM

Anthropomorphism is rooted in our innate tendency to interpret the world through a human lens (Tipler and Ruscher, 2014). It involves ascribing human-like qualities to animals, inanimate objects, or, in this case, artificial entities (Airenti, 2015; Salles *et al.*, 2020). While often treated as a natural cognitive bias, anthropomorphism is not merely a linguistic flourish: it can fundamentally shape user interaction, trust, and acceptance of technology (Crowell *et al.*, 2019; Deshpande *et al.*, 2023; Gros *et al.*, 2022; Kenton *et al.*, 2021; Li and Suh, 2021). In educational contexts, when AI tools are presented as ‘assistants’ or ‘tutors’ rather than as software applications, they can evoke expectations of support and relationality (Abercrombie *et al.*, 2023; Deshpande *et al.*, 2023).

This matters for the present study because the ways in which AI companies anthropomorphise their products directly connects to educators’ perceptions of what these systems can do. Describing an AI as ‘friendly,’ ‘understanding,’ or ‘helpful’ not only fosters comfort and engagement among users, but also risks generating misconceptions about the extent of its capabilities (Ryan, 2020; Xiao and Kumar, 2021; Złotowski *et al.*, 2016). For example, students or teachers may assume that such AI systems possess human-like empathy or judgment, even when these qualities are absent.

Against this backdrop, the anthropomorphism of AI in education is more than a theoretical concern: it is a strategic practice in marketing and policy discourse. The Department for Education’s endorsement of Oak National Academy’s Aila, explicitly described as an ‘assistant’ (Oak National Academy, 2025), demonstrates that anthropomorphism is not confined to the private sector but is also legitimised at government level. This reflects a wider societal shift in which technology is increasingly positioned not only as a tool used by human actors, but as an actor itself in information exchanges (Kronemann *et al.*, 2022; Novak and Hoffman, 2019).

By situating anthropomorphism within the marketing of educational AI, this paper links the psychological and sociocultural dynamics of human – technology interaction to concrete research questions about industry practices.

Specifically, it asks: *to what extent do educational AI companies employ anthropomorphic language on their websites as part of their marketing strategies to attract educators?* Understanding this connection allows us to critically assess how such framing might affect adoption, trust, and ethical considerations in education.

3. METHODOLOGY

The study presented here sought to respond to the following research question:

To what extent do educational AI companies employ anthropomorphic language on their websites as part of their marketing strategies to attract educators?

To investigate this question, a mixed-methods approach was employed, integrating both quantitative analysis of language patterns using the tool ‘AnthroScore’ (Cheng *et al.*, 2024) and qualitative website discourse analysis. This comprehensive methodology allows for a novel examination of the role anthropomorphic language plays in the marketing of educational AI tools. Alongside this, an anonymous online survey of educators registered on a teacher networking site was conducted to assess the validity of the assertions made in the paper, notably, if the descriptive language of AI tools included phrases such as ‘helper’ or ‘assistant’ would increase their likelihood of using them.

It is important to note that the inclusion of Aila, a Department for Education (DfE) endorsed and funded tool, alongside four private sector companies inevitably raises the question of whether this study is comparing public and private sector practices. Aila was selected for this study due to the £2million investment (Department for Education DfE, 2023) in its development and launch by the DfE which represents a significant proportion of its to-date £6million spending (UK Parliament, 2025) on AI-related resources in the education sector of the UK. While both sectors engage in anthropomorphic marketing, their goals are not identical. For the DfE and Oak National Academy, the framing of Aila as an ‘assistant’ reflects a policy-driven aim to legitimise AI within state education and to build teacher trust in a government-backed resource (Department for Education DfE, 2025). By contrast, private companies such as Khanmingo, MagicSchoolAI, CoSchool, and CenturyAI operate in a competitive marketplace, where anthropomorphism functions as a persuasive marketing strategy to attract users and secure market share (Bayne and Ross, 2016; Williamson, 2017). This duality makes the comparison analytically valuable: it allows us to examine not only the similarities in linguistic strategies across the sectors but also the differences in how those strategies are deployed depending on institutional goals.

Selection of Ai Tools – Aila

For this paper, Aila, an educational AI tool developed and endorsed by the Department for Education (DfE) in 2025, was selected as the baseline for comparison. Oak National Academy's Lesson Assistant, known as Aila, is a beta-stage chat-based AI tool development by their Product and Engineering team with the aim of helping UK teachers reduce their workload by creating curriculum-aligned lesson materials (GOV.UK, 2024; Searle, 2024). Users engage with Aila by submitting a prompt – such as a subject, key stage, or lesson title – and Aila generates a range of outputs which include full lesson plans, quizzes, slide decks, worksheets and assessments (Educate Magazine, 2024; Searle, 2024). Aila also enables its users to anchor generated content to existing Oak lessons (using retrieval-augmented generation and Cohere Re-rank for relevance) while simultaneously giving the user the option to provide feedback on its outputs – for example 'add detail' or 'make this more challenging' – meaning it is a fully human-editable output that ensures teacher oversight (GOV.UK, 2024; Searle, 2024).

Aila was created by Oak National Academy's in-house Product and Engineering Team, funded by the DfE, with no external suppliers (GOV.UK, 2024; Searle, 2024). Its curriculum content draws on partner subject specialists and partners such as the Raspberry Pi Foundation and the Geographic Association who authored and quality-assured Oak's existing resources – all of which are aligned to the English national curriculum (Bronowicka, 2024). The in-house engineers codified the pedagogical principles of the wider platform into the prompts which guide Aila's content generation processes (GOV.UK, 2024; Searle, 2024). Before Aila was fully developed, Oak piloted a simpler AI-powered quiz builder and lesson planner which was funded by a £2million government investment (GOV.UK, 2024). Aila has been in public beta since around September 2024, during which it was reportedly tested by thousands of UK teachers, who reported saving around 3.5 to 6 hours per week on planning (Roberts, 2024). Recent statistics suggest that 200,000 England teachers actively use the Oak National Academy platform (Thompson, 2025) and 30,000 England teachers have used Aila in its first 6 months (Clark, 2025). A formal randomised controlled trial (RCT) – funded by the Education Endowment Foundation (EEF) and independently evaluated by NFER – was also in the process of recruiting 450 Key Stage 2 teachers across 86 schools for an Autumn 2025 study to assess Aila's impact on 'teacher workload' and 'resources quality' with an aim of publication of findings in Autumn 2026 (EEF, 2025; Storer, 2025).

Selection of Ai Tools – Market Share Representative Companies

In addition to Aila, four further private educational AI companies were chosen based on specific criteria to ensure a diverse representation of market share of web traffic (Figure 1). The selection of the four private companies was informed by market share data from Tracxn (2024), ensuring that the analysis focused on platforms with significant visibility and influence in the educational AI space. The criteria – AI-driven functionality, online accessibility, and a clear focus on supporting educators – were designed to capture a representative sample of the sector as it currently stands. Initial selection involved companies tagged under the ‘AI in education’ category, which focuses on those providing AI-driven educational tools or online resources. The additional refined criteria included:

- **Product Type:** The AI tool must predominantly use AI-driven features rather than relying solely on human-created content.
- **Platform Type:** The tool must be an online platform rather than a physical device, ensuring accessibility for a wider range of educators.
- **Target Audience:** The primary focus should be on providing resources or assistance for educators, whether in resource generation for students or in administrative tasks.

This led to the identification of MagicalSchoolAI (41%), Khanmingo (25%) and CoSchool (25%), and CenturyAI (3%), ensuring

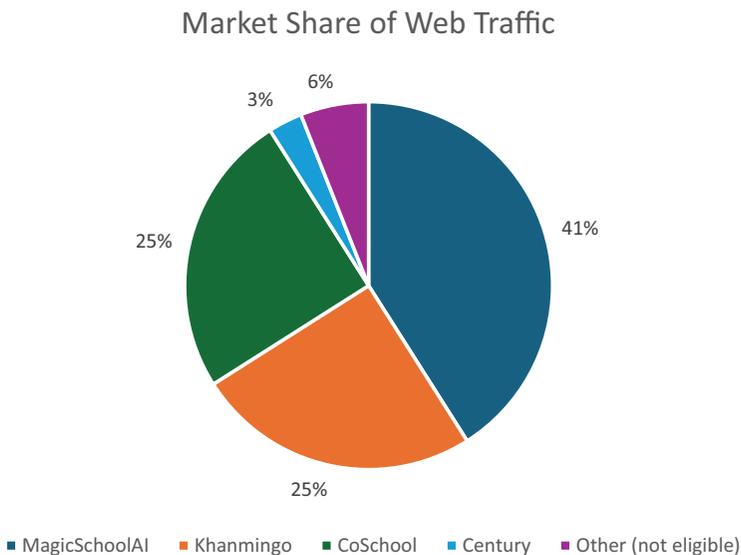


Figure 1. Market share of web traffic 2024 (Tracxn, 2024)

a representative sample of the educational AI market. MagicalSchoolAI (41%), Khanmingo (25%), CoSchool (25%), and CenturyAI (3%) that together account for a substantial proportion of web traffic in the sector and which provide a meaningful snapshot of how anthropomorphic language is used across different types of providers. While no single sample can capture the full diversity of the educational AI landscape, the combination of one government-endorsed tool and four high-visibility private platforms offers a balanced and representative foundation for analysing sector-wide practices.

Data Collection

Once the websites had been selected, each homepage was examined for textual content that employed anthropomorphic language. A maximum of 500 words from each homepage was analysed to ensure consistency and comparability across the different companies. The selected words were the first 500 words which were present on the homepages of each of the AI tools, so that each company's chosen language was analysed in the same way. Where 500 words were not present on their initial homepage, the first navigation button was selected to extract further wording and the process repeated until a total of 500 words was reached. This process was conducted by the same researcher for each webpage. This process then employed the 'AnthroScore' tool (Cheng *et al.*, 2024), a computational linguistic measure designed to quantify anthropomorphism in language, to assess the degree of anthropomorphic language used on education AI company websites (see Figures 2 and 3). The approach

$$A(s_x) = \log \frac{P_{\text{HUMAN}}(s_x)}{P_{\text{NON-HUMAN}}(s_x)}.$$

Figure 2. Calculate Anthropomorphism Score (A) for Each Sentence. Cheng *et al.* (2024, p. 4)

$$\bar{A}(T) = \frac{\sum_{s_x \in S} A(s_x)}{|S|}.$$

Figure 3. Compute Overall ANTHROSCORE for the Text (T). Cheng *et al.* (2024, p. 4)

used by Cheng *et al.* (2024) to measure anthropomorphic language is rooted in two fundamentals: 1) anthropomorphism can be seen as the opposite of dehumanising language (Epley *et al.*, 2007; Waytz *et al.*, 2010; Tipler and Ruscher, 2014) and 2) in English, the use of third-person singular pronouns indicates animacy: ‘he’ and ‘she’ refer to living beings, while ‘it’ is typically reserved for inanimate objects and thus their method leverages these pronouns as a foundational lexicon. The AnthroScore tool draws on previous works focusing on context-sensitive methods which utilise masked language models (MLM) to assess implicitly dehumanising language (Card *et al.*, 2022). The underlying premise, therefore, is that the contextual framing of a sentence reveals the level of anthropomorphism associated with an entity within that sentence. Additionally, an MLM’s predictive capabilities, refined through extensive language training, allow it to capture these implicit meanings by predicting a missing word based on its surrounding context.

AnthroScore quantifies the degree of anthropomorphism present (X) in each text or set of texts (T) regarding specific entities. The process AnthroScore follows is:

1. Step 1 (shown in Figure 2) - Construct a Dataset of Masked Sentences (S):

- o For each mention of a target entity (X) in the text (T), extract the surrounding sentence and mask the mention of that entity by replacing it with a special [MASK] token.

2. Compute Probability for Each Sentence:

- o For each masked sentence (s_x) in S, use a masked language model (MLM) to compute the probability that the [MASK] would be replaced with either human pronouns (e.g., ‘he’, ‘she’) or non-human pronouns (e.g., ‘it’).
- o Calculate:
 - o PHUMAN(s_x): Total probability of human pronouns.
 - o PNON-HUMAN(s_x): Total probability of non-human pronouns.

3. Calculate Anthropomorphism Score (A) for Each Sentence:

- o For each sentence, compute the anthropomorphism score (A) using the formula:

$$A(s_x) = \log \frac{P_{\text{HUMAN}}(s_x)}{P_{\text{NON-HUMAN}}(s_x)}.$$

- o This score reflects how likely the entity is to be framed as human versus non-human.

4. Step 2 (shown in Figure 3) - Compute Overall ANTHROSCORE for the Text (T):

- o Calculate the mean value of A across all masked sentences in S to get the overall ANTHROSCORE:

$$\bar{A}(T) = \frac{\sum_{s_x \in S} A(s_x)}{|S|}.$$

This represents how a language model (MLM) evaluates the degree of anthropomorphism (or the likelihood of an entity being perceived as human versus non-human based) for the entire text or set of texts. AnthroScore produces a numerical value which can be compared against the following benchmarks:

- $\bar{A} = -1$: This value means that the entity \times is not likely to be seen as a human and instead viewed as a non-human entity.
- $\bar{A} = 0$: If this condition is true, it means that the entity \times has an equal chance of being seen as either human or non-human.
- $\bar{A} = 1$: This suggests that the entity \times is roughly 2.7 times more likely to be viewed as human than non-human.

It is important to clarify how a high AnthroScore should be interpreted. As shown in [Figure 4](#), higher score indicates a stronger degree of anthropomorphic framing, meaning that an AI tool is more consistently described in human-like terms. While at first glance this could be read positively – aligning with the human-centred design principle of making technology more relatable and approachable – it also raises significant ethical concerns. Anthropomorphic framings can blur the line between tool and collaborator, encouraging users to attribute agency, empathy, or intentionality to systems that lack these qualities (Bender and Koller, 2020; Epley *et al.*, 2007). This tension is particularly relevant in educational contexts: for some stakeholders, a highly anthropomorphic AI may appear to demonstrate a ‘human-centred’ orientation but, in reality, such marketing may strategically manipulate language to enhance trust and adoption (Deshpande *et al.*, 2023; Watson, 2019). The challenge, therefore, is that high scores simultaneously signal increased relatability and increased risk of misconception. By

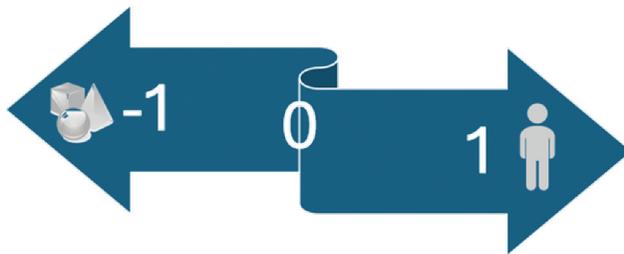


Figure 4. Visual representation of AnthroScore result

quantifying this linguistic strategy, the AnthroScore provides not only a measure of how ‘human-like’ the language used is, but also a proxy for potential ethical risk, insofar as stronger anthropomorphic framings may mislead educators about what these tools can and cannot do.

4. QUANTITATIVE FINDINGS: THE ANTHROSCORE TOOL

The analysis of anthropomorphic language on the websites of selected educational AI companies yielded notable insights regarding their communication strategies and the degree of anthropomorphism employed in their language. The baseline education AI, Aila (Oak National Academy, 2025), demonstrated a high level of anthropomorphism in their wording, shown in Figure 5a, with an average AnthroScore of 1.74. The language in the Oak National Academy webpage anthropomorphises Aila on more than one occasion, referring to it as if it has human-like qualities and can perform actions typically associated with a person. For example, phrases like ‘*Tell Aila what you want to teach and it will guide you*’ and ‘*Aila can help you create a range of lesson resources*’ suggest that Aila is capable of understanding and assisting in a manner similar to a human teacher. This use of anthropomorphism makes the AI teaching assistant more relatable and accessible to users.

Among the four additional companies with the largest global market share of web traffic, the AnthroScores varied, reflecting differing degrees of anthropomorphism in their published language:

- (1) **MagicSchoolAI:** The overall language used by MagicSchoolAI, an example of which states, ‘*The magic of AI to help schools,*’ resulted in an AnthroScore of 1.96. While this score is lower than that of Khanmingo, it still reflects an attempt to humanise the technology by invoking a sense of wonder and assistance in educational contexts.
- (2) **Khanmingo:** With an overall AnthroScore of 6.24, Khanmingo positions itself as an ‘*always-available writing coach.*’ This high score suggests a significant anthropomorphism, reinforcing a relatable and

Company	Text that uses anthropomorphism	AnthroScore
Aila	<i>Aila is an ai lesson assistant</i>	1.657789515166762
	<i>Aila can help you create a range of resources</i>	2.309747360292494
	<i>Tell Aila what you want to teach and it will guide you</i>	1.274558845545038
	Average AnthroScore	1.74736524

Company	Text that uses anthropomorphism	AnthroScore
MagicSchoolAI	<i>The magic of AI to help schools.</i>	1.9581136813578617
Khanmingo	<i>Khanmigo is your always-available writing coach.</i>	6.242810338056575
CoSchool	<i>We created Coschool to empower educators</i>	1.7891601887104098
CenturyAI	<i>CENTURY is helping teachers.</i>	2.2719590759822843

Figure 5. AnthroScore of AI company websites. Calculated using AnthroScore (Cheng *et al.*, 2024)

supportive image for potential users, particularly educators seeking assistance in writing instruction.

- (3) **CenturyAI**: Within the 500 words selected, wording such as ‘*CENTURY is helping teachers*,’ yielded an overall AnthroScore of 2.27. This moderate level of anthropomorphism suggests a focus on support for educators while maintaining a slightly less humanised portrayal of the technology compared to Khanmingo.
- (4) **CoSchool**: The wording published, including phrases such as ‘We created Coschool to empower educators’, resulted in an overall AnthroScore of 1.79. This score indicates a relatively lower degree of anthropomorphism, focusing more on the empowerment aspect of its offering while still suggesting an element of partnership with educators.

Overall, the findings indicate that educational AI companies employ anthropomorphic language to varying degrees, with an arguably deliberate strategy to create a sense of connection and relatability for users. The highest scores, particularly from Khanmingo, suggest a strong communication emphasis on human-like qualities, potentially enhancing user engagement. Conversely, the lower scores from CoSchool and MagicSchoolAI reflect a more restrained approach to anthropomorphism, focusing more on empowerment and assistance rather than personification. These differences in published language illustrate the diverse strategies employed by companies in the educational AI sector to attract educators and shape their perceptions of these technologies. Yet it is apparent that anthropomorphism is being utilised by all these companies, albeit to a varying degree.

5. QUALITATIVE FINDINGS: WEBSITE DISCOURSE ANALYSIS

These quantitative findings are intriguing, but to add a greater sense of credibility and nuance, the study also conducted a qualitative website discourse analysis of the educative AI webpages – Aila, MagicSchoolAI, Khanmingo, CenturyAI, and CoSchool – from which the maximum of 500 words were quantitatively

analysed through the AnthroScore (Cheng *et al.*, 2024) tool. Qualitative website discourse analysis provides a critical lens for examining how EdTech platforms construct meaning, authority, and value through their digital interfaces. Drawing on traditions of discourse analysis and multimodal communication (Bhatia, 1993; Kress and Leeuwen, 2020), this approach foregrounds the rhetorical and visual strategies through which technologies are framed as solutions to educational ‘crises’ (Bayne and Ross, 2016; Selwyn, 2012).

This exercise of a mixed methods approach to explore the concept of anthropomorphism in educative AI marketing is an attempt to answer a research question that neither quantitative nor qualitative data could answer alone (Ivankova, 2006). By presenting both sets of data, this paper aims to provide a variety of evidence that can enable the research question to be answered with validity (Tashakkori and Creswell, 2007). The qualitative analysis followed an Explanatory Sequential Mixed Method (Creswell and Creswell, 2018) whereby quantitative data (AnthroScores) was collected and analysed first, then qualitative data (website discourse analysis) was collected and analysed to help provide the context of the quantitative data.

MagicSchoolai

MagicSchool.ai positions itself as ‘the most loved, secure, and trusted AI platform for educators and students,’ promising to ‘save up to 10 hours per week’ and ‘prevent teacher burnout’ (magicschool.ai, n.d.). Its rhetoric frames teachers as inherently ‘magic’ while AI merely ‘helps,’ emphasizing empowerment over replacement, consistent with research on sustaining teacher agency (Selwyn, 2019). Promotional conventions – claims such as ‘#1 AI Platform for Schools & Districts,’ partner logos, and whimsical yet professional branding (‘Back to the Magic’) – combine ethos and pathos in line with EdTech marketing strategies (Williamson, 2017). Navigation is segmented for educators, schools, students, and privacy, reflecting accessibility principles (Nielsen, 1999). Value propositions dominate, with 80+ teacher tools and 50 + student tools (magicschool.ai, n.d.), aligning with affordance theory (Gibson, 1977), though their effectiveness depends on classroom integration. Trust-building is foregrounded through compliance with FERPA, COPPA, GDPR, SOC 2, and endorsements like the Common Sense Privacy rating (magicschool.ai, n.d.), addressing adoption concerns where safety is critical (Livingstone and Bulger, 2014). While persuasive, the site omits discussion of curriculum alignment or pedagogical validation, silences that are significant amid debates on safeguards in AI education (Clark *et al.*, 2025). Overall, it enacts a teacher-centric discourse of efficiency, trust, and empowerment, reinforced through both emotional and technical appeals.

Khanmigo

Khanmigo positions itself as an ‘always-available teaching assistant’ (Support.khanacademy, n.d.), adopting a hybrid pedagogical ‘voice’ that blends authority with accessibility, echoing Bakhtin’s (1981) notion of dialogic hybridity. Its discourse is user-centric, segmenting teachers, learners, and parents in line with audience design theory (Bhatia, 1993). A key differentiator is its contrastive framing against ChatGPT – ‘Unlike other AI tools . . . Khanmigo doesn’t just give answers. Instead . . . it guides learners’ (khanmigo, n.d.) -which legitimizes its purpose-driven pedagogy through Framing Theory. Ethos is constructed via Khan Academy’s non-profit affiliation, safety-oriented messaging (‘ethically designed with safety and learning as a top priority’), and social proof in teacher and parent testimonials (khanmigo.ai), reflecting Aristotelian ethos strategies. Minimalist design – with clear headers, concise text, and prompts like ‘Knock something off your to-do list in minutes’ – aligns with Tufte’s (1983) principles of clarity and rapid comprehension. Ethical discourse is embedded in FAQs and support pages, which stress educator oversight and caution against sharing personal data (support.khanacademy.org), embodying responsible AI rhetoric and a ‘human-in-the-loop’ model. Intertextual references to TED Talks, blogs, and institutional resources further situate Khanmigo within expert-driven pedagogical discourse. Overall, the site seeks to cultivate credibility and trust by combining ethical, pedagogical, and design registers to frame Khanmigo as a safe, learner-focused AI assistant.

CenturyAi

CENTURY’s homepage constructs a persuasive discourse by presenting itself as a globally trusted, research-backed solution combining ‘learning science, AI and neuroscience’ (century.tech, n.d.), aligning with evidence-based innovation in EdTech (Selwyn, 2012; Williamson, 2017). Its rhetoric follows a problem – solution arc, highlighting teacher workload and student attainment before offering CENTURY as the remedy with claims like ‘Reduces workload’ and ‘Boosts GCSE attainment,’ reflecting education-as-crisis narratives common in technology-driven reform (Bayne and Ross, 2016). Testimonials from educators build appeal through peer endorsement, positioning teachers as data-informed facilitators (Hine, 2015). Professional legitimacy is reinforced through the ‘Meet the super team’ section and philanthropic endorsements (e.g., Ufi VocTech Trust), which draw on technoscientific authority (Bacalja *et al.*, 2024). Frequent use of data-driven terms such as ‘actionable intelligence’ and ‘interventions’ (century.tech, n.d.) illustrates the quantified logic of algorithmic governance (Williamson and Piattoeva, 2019). While efficiency is central, the ‘Student Dashboard’ claims to empower learners to ‘take charge of their learning’ (century.tech, n.d.), echoing constructivist discourses of autonomy (Zimmerman, 2002). Global framing – ‘over 70 countries,’ across schools, FE, and tutoring (century.tech, n.d.) – reflects

neoliberal ideals of scalability and market applicability (Ball, 2012). Overall, the site encapsulates dominant EdTech discourses of neutrality, inevitability, and benevolence (Selwyn, 2012; Williamson, 2017).

CoSchoolai

CoSchool.ai presents itself as a unifying, AI-powered ecosystem for students, teachers, parents, and leaders, framing learning as equity and continuity through claims such as ‘ensuring students learn without knowledge gaps’ (coschool.ai), aligning with sociocultural theories of scaffolded learning (Vygotsky, 1978). Personalization is central: features like ‘learning through conversation,’ ‘truly personalised and adaptive learning,’ and the 24/7 AI tutor ‘Vin’ resonate with adaptive learning research highlighting tailored pacing and feedback (VanLehn, 2011). For teachers, CoSchool is marketed as an ‘AI assistant’ generating lesson plans and gamified content (coschool.ai, n.d.), positioning AI as augmentative rather than substitutive, consistent with teacher-empowerment discourses (Ertmer and Ottenbreit-Leftwich, 2013). Dashboards and analytics promise holistic oversight for leaders and parents, reflecting a positive framing of Foucault’s (1977) ‘biopower’ as optimization, while omitting risks of surveillance. Metaphors such as the ‘golden ratio in education’ imbue technology with connotations of harmony and balance, reinforced by appeals to ‘three decades of educational experience’ (coschool.ai, n.d.), though peer-reviewed evidence is absent. Yet silences remain: algorithmic bias, privacy, and ethical concerns are unaddressed, despite their prominence in critical EdTech scholarship (Selwyn, 2019; Williamson, 2017). Overall, the site enacts discourses of empowerment, personalization, and inclusivity while strategically omitting governance critiques.

Taken together, the analysis highlights how anthropomorphic language serves as a key rhetorical device across the different EdTech platforms, shaping how users are invited to imagine their relationships with AI. CENTURY frames its tools as intelligent collaborators grounded in neuroscience, CoSchool gives its AI tutor a persona in ‘Vin’ to emphasize constant companionship, Khanmigo positions itself as a conversational guide rather than a machine, and MagicSchool casts teachers as inherently ‘magic’ while AI simply lends a helping hand. In each case, anthropomorphism functions to naturalize technology, humanize its presence in learning spaces, and minimize potential anxieties around automation, thereby situating AI not as a distant system but as a relatable partner in education.

6. DISCUSSION

The use of anthropomorphism as an element of education AI company marketing is one which requires exploration due to the implications such a technique may have on the various stakeholders who are considering engaging with an AI tool for an educational purpose. It is well documented that anthropomorphism directly influences

potential user interaction, trust, and acceptance of a given technology (Crowell *et al.*, 2019; Deshpande *et al.*, 2023; Gros *et al.*, 2022; Kenton *et al.*, 2021; Li and Suh, 2021) and the purposeful use of ‘assistants’ or ‘coach’ rather than mere software applications, ultimately shapes potential users’ expectations (Abercrombie *et al.*, 2023; Deshpande *et al.*, 2023). This feeds from a wider societal phenomenon to anthropomorphise different forms of emerging technology (Laura and Hannam, 2018) which is becoming a problem for two reasons: 1) it perpetuates the illusions that AI possesses qualities that it simply does not have, that through AI simulating human characteristics it is equal to human intelligence, and that AI has its own ‘life’ (Choi and Kim, 2008; Zawieska *et al.*, 2012) and 2) little regard has been given to the psychological impact such linguistic choices can have on the users’ sense of relationship, connection or even self-identify within the interaction (Alabed *et al.*, 2022; Laura and Hannam, 2018) with such a characterised technology.

The Use of Specific Verbs – Help, Helping, Empower

Education AI companies have carefully selected specific verbs – such as ‘help’ (MagicSchoolAI), ‘helping’ (Century) and ‘empower’ (CoSchool) – within anthropomorphic linguistic choices when describing an AI, to augment the trust involved in educator-AI relations (Watson, 2019). This builds on a wider societal trend to almost romanticise AI (Ilonescu, 2022) whereby there has been a movement away from associating AI with the image of a technological tool that can be switched on and off (Dahlin, 2021) at the push of a button. The sentimental aspiration towards greater humanity within AI (Levesque, 2017) has formed an integral cornerstone of AI developers’ methods (Ilonescu, 2022) of the often flawed ‘social’ aspect of AI design (Sloane and Moss, 2019). The use of such verbs perpetuates the illusion that AI has the capacity to ‘understand’ (Bender and Koller, 2020) the needs of an educator and their usage in an education AI company’s lexicon, which misrepresents a form of social dynamic (Antoniak *et al.*, 2023; Sap *et al.*, 2017) between the human educator and AI entity ultimately influences the uptake of them by educators.

The Assigning of Typical Human Roles – Coach, Assistant

The intentional assignment of human roles, such as ‘coach’ and ‘assistant,’ in the marketing language of educational AI companies plays a crucial role in shaping user perceptions and expectations. This anthropomorphic framing aligns educational AI technologies with familiar and trusted roles within the educational ecosystem (Abercrombie *et al.*, 2023). By positioning AI as a ‘coach,’ for instance, companies like Khanmingo suggest that these systems can provide ongoing, personalised support akin to that of a human mentor. This not only enhances relatability but also implies a level of understanding and responsiveness that users may expect from human educators (Deshpande *et al.*, 2023).

This trend is particularly significant given the endorsement of Aila by the Department for Education (Department for Education DfE, 2025), which positions it as a critical tool for educators. As such, the use of anthropomorphic language in promoting Aila and similar technologies warrants careful, and further, examination. The portrayal of AI as a supportive entity can foster trust and ease of use among educators, potentially leading to higher adoption rates. However, this also raises ethical questions regarding the nature of the relationship being cultivated between educators and AI. As anthropomorphism can lead to unrealistic expectations about AI capabilities (Kenton *et al.*, 2021), it is imperative to balance the benefits of relatability with the need for transparent communication about what AI can and cannot do.

Why the Use of Anthropomorphism Matters

The strategic use of anthropomorphism in educational AI communication plays a crucial role in shaping educators' perceptions and their willingness to engage with these technologies. The endorsement of Oak National Academy's AI, Aila, by the Department for Education (DfE) exemplifies this trend, legitimising AI in educational settings and influencing how these technologies are adopted by teachers and institutions (Department for Education DfE, 2024; Oak National Academy, 2025). Data collected from an anonymous survey of educators (Figure 6) indicates that 67% out of 155 respondents felt that descriptors like 'helper' or 'assistant' would increase their likelihood of trying educational AI.

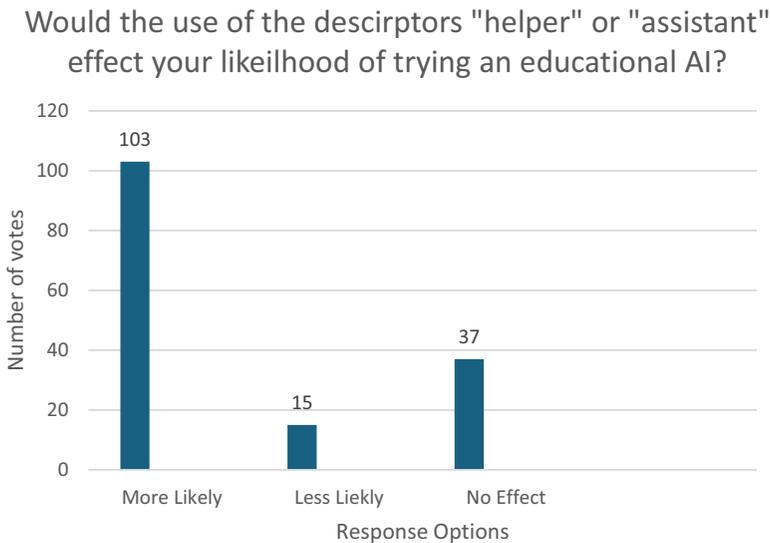


Figure 6. Anonymous survey of educators on the use of anthropomorphic descriptors

This highlights the significant impact of anthropomorphic language on decision-making processes, underscoring its potency in fostering a sense of relatability between educators and AI systems (Alabed *et al.*, 2022; McLean and Osei-Frimpong, 2019).

The language used in promoting Aila emphasises its human-like characteristics, suggesting that it can understand and respond to educators' needs. Phrases such as 'Aila can help you create a range of lesson resources' contribute to a perception of accessibility and user-friendliness. This anthropomorphism not only resonates with educators but also aligns AI more closely with familiar roles within the educational ecosystem, akin to a human mentor or tutor (Deshpande *et al.*, 2023).

However, while the use of anthropomorphic language can increase interest in educational AI, it carries risks that necessitate careful consideration. The potential for creating unrealistic expectations about AI's capabilities arises when these technologies are portrayed with human-like qualities (Ryan, 2020; Watson, 2019). If educators begin to view AI as a replacement for human interaction, disillusionment may occur when these technologies inevitably fall short of such expectations. This concern is echoed in the varied approaches of private education AI companies. For example, while Khanmigo adopts a highly anthropomorphic stance, MagicSchoolAI leans towards a more whimsical portrayal, focusing on the 'magic' of AI without fully personifying its capabilities. In contrast, CoSchool and Century take a more restrained approach, emphasising empowerment and assistance without overstating AI's functionalities (Gros *et al.*, 2022; Ilonescu, 2022).

Concrete examples of such misconceptions can be seen in studies of educational and conversational AI. For instance, Złotowski *et al.* (2016) found that the anthropomorphic appearance and language of robots influenced participants to rate them as more trustworthy and empathetic than they actually were. In customer service contexts, Xiao and Kumar (2021) show that when robots are framed as human-like, users expect richer interpersonal communication, which often leads to disappointment when interactions remain mechanistic. Similarly, Abercrombie *et al.* (2023) highlight how dialogue systems framed as 'companions' or 'mentors' led users to overestimate the system's ability to provide personalised and contextually sensitive responses. In the educational domain, this dynamic is particularly problematic, as learners and teachers may come to expect that AI can replicate qualities such as empathy, creativity, or pastoral judgment – dimensions that remain uniquely human (Crowell *et al.*, 2019; Li and Suh, 2021).

The variability in anthropomorphic language among different companies underscores the need for clear communication regarding AI's limitations. The DfE's endorsement of Aila serves as a reminder that fostering engagement through anthropomorphism must be balanced with transparency about the role of AI. By framing Aila as a supportive tool rather than a human replacement,

the DfE can help maintain realistic expectations, ensuring that the integration of AI in education is grounded in an accurate understanding of its capabilities (Dahlin, 2021; Grasse *et al.*, 2023). The use of anthropomorphism in educational AI marketing is not merely a linguistic choice; it significantly influences educators' perceptions and engagement with these technologies. As the integration of AI in education continues to evolve, understanding the implications of anthropomorphism will be essential for educators, developers, and policymakers alike. By fostering trust and engagement while advocating for ethical communication, stakeholders can ensure that educational AI is embraced responsibly and effectively (Sloane and Moss, 2019; Xu *et al.*, 2020).

7. THE WIDER CONTEXT: FUELLING ANTHROPOMORPHISM

The DfE's endorsement of Aila (Department for Education DfE, 2025) amplifies the importance of understanding the narratives that surround the adoption of AI technologies by educators. The broader education sector is experiencing a transformative shift as AI technologies become integral components of teaching and learning. This evolution is not merely technological; it is also profoundly sociocultural, as educators and institutions grapple with the implications of integrating AI into their practices (Furman and Seamans, 2019; McLean and Osei-Frimpong, 2019). The anthropomorphising of AI is fuelled by a societal trend towards viewing technology as an extension of human capabilities rather than as mere tools (Laura and Hannam, 2018).

The tendency to attribute human-like qualities to nonhuman agents, particularly in educational settings, is a key aspect of this discussion. As educators and students increasingly perceive AI technologies like Aila as extensions of their own capabilities, it is crucial to understand how these attributions shape expectations and interactions with AI. This anthropomorphism can influence how stakeholders engage with AI technologies, potentially leading to unrealistic expectations regarding their capabilities (Epley *et al.*, 2007; Waytz *et al.*, 2010). Research indicates that such perceptions are not merely cognitive biases but are influenced by broader societal narratives that frame technology in human-like terms (Alabed *et al.*, 2022; Ryan, 2020).

The framing of AI within educational discourse also significantly impacts stakeholder perceptions. Portraying AI as a helpful assistant rather than merely a tool encourages more positive interactions with these systems. This aligns with the necessity to critically assess the narratives surrounding AI, as educational institutions must evolve their discourse to reflect the realities of these technologies while addressing the anthropomorphic language that shapes user perceptions (Dahlin, 2021; Watson, 2019). The cultural context in which AI is presented can either enhance or hinder its acceptance and effectiveness in education (Deshpande *et al.*, 2023).

To effectively bridge the gap between the technical and sociocultural dimensions of AI, interdisciplinary collaboration is essential. In the educational landscape, involving educators, technologists, and social scientists in discussions about AI integration can foster a nuanced understanding of its implementation. This collaboration can enhance both technological effectiveness and ethical considerations, ensuring that educational practices are well-informed and socially responsible (Furman and Seamans, 2019; Grasse *et al.*, 2023).

8. THE DANGERS OF ANTHROPOMORPHISM – GROWING MISCONCEPTIONS OF ‘REPLACEMENT’

The wider context of anthropomorphism of AI highlights that certain communication tactic poses significant risks, particularly the misconception that AI can or should replace human educators. The anthropomorphising of AI can inadvertently reinforce stereotypes and social values that may not promote inclusivity within educational environments. The potential for AI to act as a social regulator influences societal norms and values, making it imperative for educators to design AI interactions that promote diversity and equity, rather than perpetuating existing biases (Kronemann *et al.*, 2022; Xu *et al.*, 2020). Awareness of these implications will help cultivate educational settings that are more inclusive and equitable. This notion has been perpetuated by communication strategies that emphasise human-like qualities, creating a false equivalency between AI capabilities and human intelligence (Choi and Kim, 2008; Zawieska *et al.*, 2012). The tendency to anthropomorphise AI can lead to an overestimation of its abilities, fostering unrealistic expectations among educators and learners alike (Deshpande *et al.*, 2023; Kenton *et al.*, 2021).

In light of the Department for Education’s (DfE) investment in Aila, it is crucial to confront misconceptions about AI in education directly. By framing Aila as a supportive tool rather than a substitute for human educators, stakeholders can work to mitigate the risks associated with anthropomorphism (Deshpande *et al.*, 2023). This reframing is essential for several reasons:

- (1) **Preservation of Human Elements:** Teaching is not just about the transfer of knowledge; it involves building relationships, understanding emotional dynamics, and fostering a supportive environment (Crowell *et al.*, 2019). Human educators excel in these areas due to their lived experiences and emotional intelligence, which AI cannot replicate (Duffy, 2003). Acknowledging this distinction helps preserve the essential human elements of teaching (Epley *et al.*, 2007).
- (2) **Realistic Understanding of AI Limitations:** While AI can process vast amounts of data and provide tailored learning experiences, it lacks the innate human qualities necessary for effective teaching. AI cannot currently understand the complexities of human emotions or the

subtleties of classroom interactions (Bender and Koller, 2020). By fostering a more nuanced understanding of AI's limitations, educators and learners can engage with these technologies in a more informed manner (Li and Suh, 2021).

- (3) **Trust and Responsible Use:** Maintaining trust in educational environments is paramount. When AI is misrepresented as a replacement for human educators, it can lead to scepticism and fear among stakeholders (McLean and Osei-Frimpong, 2019). By promoting a balanced perspective that recognises AI as a tool for enhancement rather than replacement, educators can facilitate a more responsible integration of these technologies into the teaching and learning process (Ryan, 2020).
- (4) **Encouraging Collaboration:** Rather than viewing AI as a competitor to human educators, it should be seen as a collaborator that can augment teaching practices. AI can provide data-driven insights, assist with administrative tasks, and offer personalised learning experiences, allowing educators to focus more on mentoring, coaching, and developing critical thinking skills among students (Gros *et al.*, 2022; Novak and Hoffman, 2019).

Ultimately, the goal should be to integrate AI technologies in a way that complements and enhances the educational experience, rather than undermining the invaluable role of human educators. By actively addressing and dispelling the myths surrounding AI's capabilities and its role in education, stakeholders can foster a more constructive dialogue about the future of teaching and learning in an increasingly technological landscape (Dahlin, 2021). This balanced perspective is essential for ensuring the responsible use of AI in education and for cultivating an environment that prioritises the human elements vital for effective teaching and learning (Waytz *et al.*, 2010).

9. AN ALTERNATIVE VIEWPOINT: EXPANDING THE BOUNDARIES OF INQUIRY

This goal of integrating AI technologies in a way that not only harmonises with but positively augments an educator's practice is an alternative viewpoint worthy of consideration within this discussion. While much of the discourse considered in this paper focuses on educational AI tools' adoption of anthropomorphism as a potentially negative side effect of AI's incorporation into educative practices, there is another interpretation of the phenomena: that as AI continue to develop there is an opportunity to reconceptualise it not as a surrogate teacher or sentient entity, but as an active participant within a distributed, social-cognitive system.

Sharples (2023) provocatively challenges the conventional ‘promptandresponse’ paradigm, instead portraying learners and generative AI as engaging in social dialogue within a dynamic computational medium. In this view, learning emerges from conversational interactions, where AI and learners collaboratively set goals, build meaning, reconcile differences, and transfer knowledge across contexts (Sharples, 2023). This line of thinking positions AI as a dialogic collaborator, rather than a simplistic tool – one that enriches social learning through its generative capacity – so that a future might be achievable where hybrid neurosymbolic architectures with memory, reflective capacity, and explainability enable AI to support nuanced, ethical multiparty educational dialogue (Sharples, 2023). Sørensen (2023) brings these theoretical possibilities into practice through his concept of the AIEnhanced Coaching Triad, which reconfigures coaching as a cocreated conversation among coach, coachee, and AI companion. Sørensen (2023) shares how tools like ChatGPT and Fathom Notes augment sessions by generating immediate insights, sparking curiosity, and enriching coachee reflection – all while maintaining a coaching mindset (Sørensen, 2023).

However, Sharples counsels caution: for AI to genuinely inhabit a participatory learning role, it must be designed with ethical awareness, capacity for care, and respect for human teachers and learners (Sharples, 2023). This includes respecting the roles and expertise of educators within the learning ecosystem. Similarly, Sørensen emphasizes agency, ethics, and augmentation: AI isn’t replacing the educator but amplifying the educative process by making it more imaginative, responsive, and clientcentred (Sørensen, 2023). In essence, there must be a movement towards more conscientious AI use, where prompts are crafted collaboratively, and the user retain control and ownership over the outcomes.

10. THE CO-PRODUCTION OF KNOWLEDGE VS THE IMPACT ON TEACHER AGENCY

For AI to genuinely inhabit a participatory learning role, it is important to distinguish between two interrelated but conceptually distinct concerns: the co-production of knowledge through human – AI interactions and the implications of these dynamics for teacher agency. While the findings of this study demonstrate how anthropomorphic framings encourage educators to view AI as a collaborator, this co-productive framing should not be conflated with the actual preservation of agency within teaching practice.

The co-production of knowledge refers to the epistemological processes by which human and machine outputs become entangled. When AI is positioned as a ‘coach’ or ‘assistant’ (Sørensen, 2023), the published language foregrounds collaboration and partnership, inviting educators to imagine themselves working *with* AI in the creation of lesson plans, feedback, or administrative tasks. This

blurring of boundaries between human and machine epistemic contributions raises questions about authorship, responsibility, and the legitimacy of AI-mediated knowledge in education (Luckin, 2018; Luckin and Cukuoriva, 2019). Such co-production complicates the status of knowledge in the classroom by destabilising traditional distinctions between human creativity and algorithmic output (Deshpande *et al.*, 2023; Ryan, 2020).

The impact on teacher agency, however, is a distinct but equally pressing issue. The very same framings that suggest co-productive potential may, paradoxically, diminish educators' sense of autonomy if they feel displaced or overshadowed by AI's purported 'understanding' and 'guidance.' Teacher agency is not simply about whether teachers use AI, but about their capacity to make informed, professional judgments in contexts where AI systems increasingly shape decision-making (Luckin, 2018; Luckin and Cukuoriva, 2019). Sustaining human agency in AI-rich classrooms requires deliberate design and governance choices that position AI as augmentative rather than directive (Luckin, 2018; Luckin and Cukuoriva, 2019). In the context of this paper, the danger lies in communication strategies that overstate AI's collaborative role, which risks encouraging teachers to defer to machine outputs instead of exercising critical pedagogical judgment.

By distinguishing these two dimensions, we can see more clearly that anthropomorphism has dual consequences. On the one hand, it enables educators to imagine co-constructive forms of practice that situate AI as a pedagogical partner. On the other, it risks undermining the very agency required for teachers to remain central actors in education. The task ahead, as highlighted in the growing literature, is to develop frameworks and practices that harness the benefits of co-production while safeguarding teacher autonomy. This requires transparency about AI's limits, critical AI literacy for educators, and institutional policies that affirm the irreplaceable human elements of teaching – empathy, judgment, and relational understanding.

11. CONCLUSION

The findings of this paper highlight a significant trend in the marketing strategies employed by educational AI companies, particularly in the context of anthropomorphism. The investigation into how the use of anthropomorphic language is employed reveals that such strategies are not merely linguistic choices; they can be argued as deliberate efforts to foster a sense of connection and relatability with educators – though it should be noted there is no mention of such a technique in any policy or formal document underpinning their design. The use of terms like 'assistant,' 'coach,' and 'helper' effectively positions AI as a supportive ally in the educational process, which resonates well with educators seeking tools that enhance their teaching practices.

The DfE's endorsement of Aila in 2025 plays a pivotal role in legitimising AI technologies in education. This endorsement not only encourages the adoption of AI tools but also amplifies the importance of understanding the narratives that surround them. The marketing language used by Aila and similar products is likely to significantly influence educators' perceptions and willingness to engage with these technologies. The paper found that a substantial number of educators (67% of participants) indicated that descriptors such as 'helper' or 'assistant' would increase their likelihood of trying educational AI. This statistic underscores the potency of anthropomorphic language in shaping decision-making processes and fostering a collaborative environment between educators and technology.

However, the extensive use of anthropomorphic language also raises ethical considerations that warrant careful examination. While such language enhances relatability and user engagement, it can inadvertently create unrealistic expectations about the capabilities of AI. Educators may begin to view AI as a replacement for human interaction, leading to disillusionment when these technologies inevitably fall short of such expectations. This concern is amplified by the varied approaches of private education AI companies. For instance, while Khanmigo adopts a highly anthropomorphic stance, other companies like MagicSchoolAI take a more whimsical approach, focusing on the 'magic' of AI without fully personifying its capabilities. This variability illustrates the need for clear communication regarding AI's limitations across the board. The anthropomorphising of AI can lead to misconceptions about the nature of the relationship between educators and these technologies. By framing AI as having human-like qualities, there is a risk of overlooking the unique attributes that human educators bring to the learning environment, such as empathy, creativity, and nuanced understanding. Therefore, it is essential for stakeholders, including developers, educators, and policymakers, to engage in responsible communication that balances the benefits of anthropomorphism with the need for transparency about AI's capabilities.

To mitigate the risks associated with anthropomorphism, educational AI companies should adopt a more nuanced approach in their marketing language, emphasising AI's role as a tool that complements human educators rather than replaces them. By presenting AI as a collaborator that can augment teaching practices – offering data-driven insights, assisting with administrative tasks, and providing personalised learning experiences – stakeholders can foster a more constructive dialogue about AI's role in education. Educators excel in building relationships, understanding emotional dynamics, and fostering supportive environments – qualities that AI cannot replicate. By promoting a balanced perspective that recognises AI as a supportive tool rather than a human replacement, stakeholders can facilitate a more responsible integration of these technologies into the educational landscape.

In conclusion, this paper proposes that rather than focusing on how AI can mimic human attributes or characteristics through anthropomorphism, instead educative AI developers should be seeking to market their AI as something which can harmonise with and positively augment the role of the educator. Taken together, Sharples (2023) systemic, theorydriven vision and Sørensen's (2023) practical, triadic coaching model invites us to expand the boundaries of inquiry – to ask not just *how* AI can mimic or replace human attributes, but rather:

- How can AI function as a socially embedded, ethically aligned collaborator in learning?
- How can human agency and AI capabilities coregulate a shared learning journey – whether in classrooms or coaching spaces?
- What new pedagogical models emerge when AI becomes a dialogic partner, rather than merely a tool or humanoid construct?

This alternative viewpoint moves beyond anthropomorphism by centring social context, ethical coagency, and purposedriven AI integration. It challenges us to reconceptualise AI's role not as humanlike, but as social and systemic – enabling conversation, creativity, and reflective learning within humanAI collectives.

12. DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author(s).

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13. REFERENCES

- Abdelghani, R., Sauzéon, H., and Oudeyer, P. (2023). Generative AI in the classroom: Can students remain active learners? <https://arxiv.org/abs/2310.03192> (accessed 22 January 2025).
- Abercrombie, G., Cercas Curry, A., Dinkar, T., and Talat, Z. (2023). Mirages: on anthropomorphism in dialogue systems. In H. Bouamor, J. Pino and K. Bali (Eds) *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)* (Singapore, Association for Computational Linguistics), 4776–4790.
- Adel, A. (2024) The convergence of intelligent tutoring, Robotics, and IoT in smart education for the transition from industry 4.0 to 5.0, *Smart Cities*, 7 (1), 325–369. doi: 10.3390/smartcities7010014
- Airenti, G. (2015) The cognitive bases of anthropomorphism: from relatedness to empathy, *International Journal of Social Robotics*, 7 (1), 117–127. doi: 10.1007/s12369-014-0263-x

- Alabed, A., Javornik, A., and Gregory-Smith, D. (2022) AI anthropomorphism and its effect on users' self-congruence and self-AI integration: a theoretical framework and research agenda, *Technological Forecasting and Social Change*, 182 (2022), 121786. doi: [10.1016/j.techfore.2022.121786](https://doi.org/10.1016/j.techfore.2022.121786)
- Antoniak, M., Field, A., Mun, J., Walsh, M., Klein, L., and Sap, A. (2023). Riveter: measuring power and social dynamics between entities. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics*, Toronto, Canada (vol. 3) (Association for Computational Linguistics), 377–388. doi:[10.18653/v1/2023.acl-demo.36](https://doi.org/10.18653/v1/2023.acl-demo.36)
- Bacalja, A., Nichols, T., Robinson, B., Bhatt, A., Kucharczyk, S., Zomer, C., Dupont, B., Zaman, B., Bonenfant, M., Grosemans, E., Abrams, S., Vallis, C., Koutsogiannis, D., Dishon, G., Reed, J., Byers, T., Fawzy, R., Hsu, H., Lowien, N., Barton, G., and Callow, J. (2024). Postdigital videogames literacies: thinking with, through, and beyond James Gee's learning principles. *Postdigital Science and Education*, 6 (4), 1103–1142. doi:[10.1007/s42438-024-00510-3](https://doi.org/10.1007/s42438-024-00510-3)
- Bakhtin, M. (1981) *The Dialogic Imagination: Four Essays* (Edited by M. Holquist, and Translated C. Emerson and M. Holquist) (Austin & London, University of Texas Press).
- Ball, S. (2012) *Global Education Inc.: New Policy Networks and the Neo-Liberal Imaginary* (Abingdon, Routledge).
- Bayne, S. and Ross, J. (2016) *The Pedagogy of the Massive Open Online Course: The UK View* (York, Higher Education Academy).
- Bender, E. and Koller, A. (2020). Climbing towards NLU: on meaning, form, and understanding in the age of data. In D. Jurafsky, J. Chai, N. Schluter and J. Tetreault (Eds) *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, Online (Association for Computational Linguistics), 5185–5198.
- Bhatia, V. (1993) *Analysing Genre: Language Use in Professional Settings* (London, Routledge).
- Bronowicka, M. (2024). Oak Academy's AI lesson planning tools - CAS AI TC meeting. *Computing at School*. <https://www.computingschool.org.uk/forum-news-blogs/2024/october/oak-academys-ai-lesson-planning-tools-cas-ai-tc-meeting/>
- Card, D., Chang, S., Becker, C., Mendelsohn, J., Voigt, R., Leh Boustan, L., Abramitzky, R., and Jurafsky, D. (2022) Computational analysis of 140 years of US political speeches reveals more positive but increasingly polarized framing of immigration, *Proceedings of the National Academy of Sciences*, 119 (31). [10.1073/pnas.2120510119](https://doi.org/10.1073/pnas.2120510119)
- Cheng, M., Gligoric, K., Piccardi, T., and Jurafsky, D. (2024). AnthroScore: a Computational linguistic measure of anthropomorphism. In Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics, Malta. Association for Computational Linguistics. <https://anthroscore.stanford.edu/>
- Choi, J. and Kim, M. (2008). The usage and evaluation of anthropomorphic form in robot design. In D. Durling, C. Rust, L. Chen, P. Ashton, and K. Friedman (Eds), *Undisciplined! - DRS International Conference 2008*, Sheffield, UK (DRS Digital Library), 16–19.
- Clark, H. (2025). *Your Top 5 Questions About Aila, Our AI Lesson Assistant, Answered* (Manchester, UK, Oak National Academy). <https://www.thenational.academy/blog/your-top-5-questions-about-aila-our-ai-lesson-assistant-answered>
- Clark, H., Benton, L., Searle, E., Dowland, M., Gregory, M., Gayne, W., and Roberts, J. (2025) Building effective safety guardrails in AI education tools, *arXiv*. doi: [10.48550/arXiv.2508.05360](https://doi.org/10.48550/arXiv.2508.05360)

- Coschool.ai (n.d.) <https://www.coschool.ai/>
- Creswell, J. W. and Creswell, J. D. (2018) Mixed methods procedures. In J. W. Creswell and J. D. Creswell (Eds) *Research Design: Qualitative, Quantitative, and Mixed Method Approaches* 5th (SAGE Publications), 213–246.
- Crowell, C., Deska, J., Villano, M., Zenk, J., and Roddy, J. (2019) Anthropomorphism of robots: study of appearance and agency, *JMIR Human Factors*, 6 (2), e12629. doi: [10.2196/12629](https://doi.org/10.2196/12629)
- Dahlin, E. (2021) Mind the gap! On the future of AI research, *Humanities and Social Sciences Communications*, 8 (1), 1–4. doi: [10.1057/s41599-021-00750-9](https://doi.org/10.1057/s41599-021-00750-9)
- Department for Education (DfE). (2023) *New Support for Teachers Powered by Artificial Intelligence* (DfE). <https://www.gov.uk/government/news/new-support-for-teachers-powered-by-artificial-intelligence>
- Department for Education (DfE). (2024). *Generative AI in Education– Educator and Expert Views* (London, DfE). <https://www.gov.uk/government/publications/generative-ai-in-education-educator-and-expert-views>
- Department for Education (DfE) (2025). Generative artificial intelligence (AI) in education, updated 22 January 2025, DfE, <https://www.gov.uk/government/publications/generative-artificial-intelligence-in-education/generative-artificial-intelligence-ai-in-education>
- Deshpande, A., Rajpurohit, T., Narasimhan, K., and Kalyan, A. (2023). *Anthropomorphization of AI: opportunities and risks*. <https://doi.org/10.48550/arXiv.2305.14784>
- Duffy, B. (2003) Anthropomorphism and the social robot, *Robotics and Autonomous Systems*, 41 (3–4), 177–190. doi: [10.1016/S0921-8890\(02\)00374-3](https://doi.org/10.1016/S0921-8890(02)00374-3)
- Educate Magazine (2024). New AI-powered lesson planning tool launched and could ‘give teachers their Sunday nights back’. *Educate Magazine*. <https://www.educate-magazine.com/new-ai-powered-lesson-planning-too-launched-aila/>
- EEF (2025). Lesson planning using AI lesson assistant, Aila – teacher choices trial. *Education Endowment Foundation*. <https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/aila-teacher-choices-trial>
- Epley, N., Waytz, A., and Cacioppo, J. (2007) On seeing human: a three-factor theory of anthropomorphism, *Psychological Review*, 114 (4), 864–886. doi: [10.1037/0033-295X.114.4.864](https://doi.org/10.1037/0033-295X.114.4.864)
- Ertmer, P. and Ottenbreit-Leftwich, A. (2013) Teacher technology change: how knowledge, confidence, beliefs, and culture intersect, *Journal of Research on Technology in Education*, 42 (3), 255–284. doi: [10.1080/15391523.2010.10782551](https://doi.org/10.1080/15391523.2010.10782551)
- Foucault, M. (1977) *Discipline and Punish: The Birth of the Prison* (New York, Pantheon Books).
- Furman, J. and Seamans, R. (2019) AI and the economy, *Innovation Policy and the Economy*, 19 (1), 161–191. doi: [10.1086/699936](https://doi.org/10.1086/699936)
- Gibson, J. (1977) *Ecological Approach to Visual Perception* (London, Tylor & Francis, Psychology Press).
- GOV.UK (2024). Oak National Academy: Aila (Oak’s AI lesson assistant). *Department of Education*. <https://www.gov.uk/algorithmic-transparency-records/oak-national-academy-aila-oaks-ai-lesson-assistant>
- Grasse, O., Mohr, A., Lang, A., and Jahn, C. (2023). AI approaches in education based on individual learner characteristics: a review. 12th International Conference on Engineering Education (ICEED) Shah Alam, Malaysia, pp. 50–55, DOI:[10.1109/ICEED59801.2023.10264043](https://doi.org/10.1109/ICEED59801.2023.10264043)
- Gros, D., Li, Y., and Yu, Z. (2022). Robots-Don’t cry: understanding falsely anthropomorphic utterances in dialog systems. In Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing, Abu Dhabi, United Arab Emirates. Association for Computational Linguistics, pp 3266–3284

- Hine, C. (2015) *Ethnography for the Internet: Embedded, Embodied and Everyday* (1st ed) (London, Routledge). doi: [10.4324/9781003085348](https://doi.org/10.4324/9781003085348)
- Ionescu, I. (2022). *Just Like Me, but Not Exactly: AI, Anthropomorphism and the Human-Technology Gap*. PhD thesis, Royal College of Art/Microsoft Research Cambridge. https://researchonline.rca.ac.uk/5530/8/Iulia_Ionescu_JLMBNE.pdf
- Ivankova, N. (2006) Using mixed methods sequential explanatory design: from theory to practice, *Field Methods*, 18 (1), 3–20. doi: [10.1177/1525822x05282260](https://doi.org/10.1177/1525822x05282260)
- Karanika, K. and Hogg, M. (2020) Self-object relationships in consumers' spontaneous metaphors of anthropomorphism, zoomorphism, and dehumanization, *Journal of Business Research*, 109 (C), 15–25. doi: [10.1016/j.jbusres.2019.10.005](https://doi.org/10.1016/j.jbusres.2019.10.005)
- Kenton, Z., Everitt, T., Weidinger, L., Gabriel, I., Mikulik, V., and Irving, G. (2021) Alignment of language agents, *arXiv Preprint arXiv: 2103.14659khanmigo.Ai*, <https://www.khanmigo.ai/>
- Kress, G. and Leeuwen, T. (2020) *Reading Images: The Grammar of Visual Design* (3rd ed) (London, Routledge). doi: [10.4324/9781003099857](https://doi.org/10.4324/9781003099857)
- Kronemann, B., Kizgin, H., Rana, N., and Dwivedi, Y. (2022) How AI encourages consumers to share their secrets? The role of anthropomorphism, personalisation, and privacy concerns and avenues for future research, *Spanish Journal of Marketing – ESIC*, 27 (1), 3–19. doi: [10.1108/SJME-10-2022-0213](https://doi.org/10.1108/SJME-10-2022-0213)
- Laura, R. and Hannam, F. (2018) Philosophical and educational reflections on the paradox of anthropomorphising our computechology, while simultaneously dehumanising ourselves, *International Journal of Information and Education Technology*, 8 (2), 146–151. doi: [10.18178/ijiet.2018.8.2.1024](https://doi.org/10.18178/ijiet.2018.8.2.1024)
- Levesque, H. (2017) *Common Sense, the Turing Test, and the Quest for Real AI* (Cambridge, MA, MIT Press).
- Li, M. and Suh, A. (2021). Machinelike or humanlike? a literature review of anthropomorphism in AI-enabled technology. In T. Bui (Ed) *54th Hawaii International Conference on System Sciences (HICSS 2021)*, Manoa, Hawaii (HICSS Conference Office), 4053–4062.
- Liu, J., Chang, H., Forrest, J., and Yang, B. (2020) Influence of artificial intelligence on technological innovation: evidence from the panel data of China's manufacturing sectors, *Technological Forecasting and Social Change*, 158 (2), 120142. doi: [10.1016/j.techfore.2020.120142](https://doi.org/10.1016/j.techfore.2020.120142)
- Livingstone, S. and Bulger, M. (2014) A Global research agenda for Children's rights in the Digital age, *Journal of Children and Media*, 8 (4), 317–335. doi: [10.1080/17482798.2014.961496](https://doi.org/10.1080/17482798.2014.961496)
- Luckin, R. (2018) *Machine Learning and Human Intelligence* (London, IOE Press).
- Luckin, R. and Cukuoriva, M. (2019) Designing educational technologies in the age of AI: a learning sciences-driven approach, *British Journal of Educational Technology*, *BJET*, 50 (6), 2824–2838. doi: [10.1111/bject.12861](https://doi.org/10.1111/bject.12861)magicschool.ai.
- McLean, G. and Osei-Frimpong, K. (2019) Hey Alexa ... examine the variables influencing the use of artificial intelligent in-home voice assistants, *Computers in Human Behaviour*, 99 (1), 28–37.
- McLeay, F., Osburg, V., Yoganathan, V., and Patterson, A. (2021) Replaced by a robot: service implications in the age of the machine, *Journal of Service Research*, 24 (1), 104–121. doi: [10.1177/1094670520933354](https://doi.org/10.1177/1094670520933354)
- Nielsen, J. (1999) *Designing Web Usability: The Practice of Simplicity* (Thousand Oaks, CA, New Riders Publishing).
- Novak, T. and Hoffman, D. (2019) Relationship journeys in the internet of things: a new framework for understanding interactions between consumers and smart objects, *Journal of the Academy of Marketing Science*, 47 (2), 216–237. doi: [10.1007/s11747-018-0608-3](https://doi.org/10.1007/s11747-018-0608-3)

- Oak National Academy (2025). Introducing Aila, AI experiments. <https://labs.thenational.academy>
- Richter, A., Gacic, T., Koelmel, B., Waidelich, L., and Glaser, P. (2019) A review of fundamentals and influential factors of artificial intelligence, *International Journal of Computer and Information Technology*, 8 (4), 142–156.
- Roberts, J. (2024). Oak: We've created safe AI that will save teachers time. *TES Magazine*. <https://www.tes.com/magazine/analysis/general/oak-national-academy-lesson-planning-ai-tool-cuts-teacher-workload>
- Ryan, M. (2020) In AI we trust: ethics, artificial intelligence, and reliability, *Science and Engineering Ethics*, 26 (5), 2749–2767. doi:10.1007/s11948-020-00228-y
- Salles, A., Evers, K., and Farisco, M. (2020) Anthropomorphism in AI, *AJOB Neuroscience*, 11 (2), 88–95. doi: 10.1080/21507740.2020.1740350
- Sap, M., Prasettio, M., Holtzman, A., Rashkin, H., and Choi, Y. (2017). Connotation frames of power and agency in modern films. In M. Palmer, R. Hwa and S. Riedel (Eds) Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing, Copenhagen (Association for Computational Linguistics), 2329–2334.
- Searle, E. (2024). Understanding the 'ai' in Aila: an overview of how Aila generates high-quality lessons using AI techniques. *Oak National Academy*. <https://www.thenational.academy/blog/understanding-the-ai-in-aila>
- Selwyn, N. (2012) *Education in a Digital World: Global Perspectives on Technology and Education* (1st ed. ed) (London, Routledge). doi: 10.4324/9780203108178
- Selwyn, N. (2019) *Should Robots Replace Teachers? AI and the Future of Education* (1st edn) (Cambridge, UK, Polity Press).
- Shankar, V. (2018) How artificial intelligence (AI) is reshaping retailing, *Journal of Retailing*, 94 (4), 6–11. doi: 10.1016/S0022-4359(18)30076-9
- Sharples, M. (2023) Towards social generative AI for education: theory, practices and ethics, *Learning: Research and Practice*, 9 (2), 159–167. doi: 10.1080/23735082.2023.2261131
- Sloane, M. and Moss, E. (2019) AI's social sciences deficit, *Nature Machine Intelligence*, 1 (8), 330–331. doi: 10.1038/s42256-019-0084-6
- Sørensen, S. (2023). The AI-Enhanced coaching Triad: Co-creating conversations between coach, coachee, and ai, and associated opportunities, risks, and ethical issues. In D. Tee (Ed) BPS Coaching Psychology Division Annual Conference. London, UK, British Psychological Society). <https://www.researchgate.net/publication/371417342>
- Storer, R. (2025). Schools wanted for AI lesson planning trial. *Schools Week*. <https://schoolsweek.co.uk/schools-wanted-for-ai-lesson-planning-trial/>
- Support.khanacademy.org (n.d.) <https://support.khanacademy.org/hc/en-us>
- Tashakkori, A. and Creswell, J. W. (2007) Editorial: exploring the nature of research questions in mixed methods research, *Journal of Mixed Methods Research*, 1 (3), 207–211. doi: 10.1177/1558689807302814
- Teacher Tapp (2023). How to improve behaviour and wellbeing, and how you're using AI in schools, n
- Thompson, E. (2025). *Oak national academy evaluation shows widespread adoption and workload impact across England* (London, UK, ETIH, EdTech Innovation Hub). <https://www.edtechinnovationhub.com/news/oak-national-academy-evaluation-shows-widespread-adoption-and-workload-impact-across-england>
- Tipler, C. and Ruscher, J. (2014) Agency's role in dehumanization: non-human metaphors of out-groups, *Social and Personality Psychology Compass*, 8 (5), 214–228. doi: 10.1111/spc3.12100

- Tracxn (2024) Latest market share. <https://platform.tracxn.com/a/d/company/aSoinvRDYS2GDk0YF6q6CnVtD2tpcJC6414B4dj-YiE/magicschool.ai/marketshareretention>
- Tufte, E. (1983) The Visual display of quantitative information, *American Journal of Physics*, 31 (11). doi:10.1109/MPER.1988.587534
- UK Parliament. (2025) Schools: artificial intelligence, questions for Department of education, *Written Questions, Answers and Statements, UK Parliament*, <https://questions-statements.parliament.uk/written-questions/detail/2025-11-25/94489>
- VanLehn, K. (2011) The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems, *Educational Psychologist*, 46 (4), 197–221. doi: 10.1080/00461520.2011.611369
- Vygotsky, L. (1978) *Mind in Society: The Development of Higher Psychological Processes* (Cambridge, MA, Harvard University Press).
- Watson, D. (2019) The rhetoric and reality of anthropomorphism in artificial intelligence, *Minds and Machines*, 29 (3), 417–440. doi: 10.1007/s11023-019-09506-6
- Waytz, A., Epley, N., and Cacioppo, J. (2010) Social cognition unbound: insights into anthropomorphism and dehumanization, *Current Directions in Psychological Science*, 19 (1), 58–62. doi: 10.1177/0963721409359302
- Williamson, B. (2017) *Big Data in Education: The Digital Future of Learning, Policy and Practice* (London, SAGE).
- Williamson, B. and Piattoeva, N. (2019) Objectivity as standardization in data-scientific education policy, technology and governance, *Learning, Media and Technology*, 44 (2), 1–13. doi: 10.1080/17439884.2018.1556215
- Xiao, L. and Kumar, V. (2021) Robotics for customer service: a useful complement or an ultimate substitute?, *Journal of Service Research*, 24 (1), 9–29. doi: 10.1177/1094670519878881
- Xu, Y., Shieh, C., van Esch, P., and Ling, I. (2020) AI customer service: task complexity, problem-solving ability, and usage intention, *Australian Marketing Journal*, 28 (4), 189–199. doi: 10.1016/j.ausmj.2020.03.005
- Yadav, U. and Shrawankar, U. (2025) Artificial intelligence across industries: a comprehensive review with a focus on education. In K. Keeley (Ed.) *AI Applications and Strategies in Teacher Education* (Hershey, PA, IGI Global), 275–320.
- Yoganathan, V., Osburg, V., Kunz, W., and Toporowski, W. (2021) Check-in at the Robo-desk: effects of automated social presence on social cognition and service implications, *Tourism Management*, 85, 104309. doi: 10.1016/j.tourman.2021.104309
- Zawieska, K., Duffy, B., and Sprońska, A. (2012) Understanding anthropomorphisation in social robotics, *Pomiary Automatyka Robotyka*, 16 (11), 78–82.
- Zimmerman, B. (2002) Becoming a self-regulated learner: an overview, *Theory into Practice*, 41 (2), 64–70. doi: 10.1207/s15430421tip4102_2
- Złotowski, J., Sumioka, H., Nishio, S., Glas, D., Bartneck, C., and Ishiguro, H. (2016) Appearance of a robot affects the impact of its behaviour on perceived trustworthiness and empathy, *Paladyn Journal of Behavioural Robotics*, 7 (1), 55–66. doi: 10.1515/pjbr-2016-0005

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