CHALLENGES IN EDUCATING THE ALPHA GENERATION

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Abstract: *The author of this study investigates the relationship between Generation Alpha and education, with focus on key aspects of their education such as digital learning and technology (smart devices, AI, online learning and gamified learning, adaptive AI-driven education, interactive digital classrooms), educational challenges (learning gaps, behavioural challenges and mental health, socio-emotional development), teachers' role (blended learning), parents' role (parental involvement, digital learning tools), and future learning experiences.*

Keywords: *Generation Alpha; education; technology; challenges; teachers.*

Introduction

Generation Alpha (also Gen Alpha or Alphas), a term introduced by Australian social researcher Mark McCrindle in 2008):s a demographic group born between 2 i010/2011/2012/2013 and 2021/2024/2025 (according to different authors); is addicted to screens; is digitally learned (because they have experienced remote classrooms and digital education); is marked by allergies and obesity; is often considered to include the children of Generation Y or Millennials (born between 1981 and 1996); is present online since birth, as their parents share photos and videos of them on social media; is still growing; is tech-savvy, i.e. they have grown up with smartphones, streaming services, and tablets from an early age; is the first generation to be born entirely in the 21st century.

Having grown up in a world dominated by digital technology has shaped Alphas' learning experiences. The main key aspects of their education are: digital learning and technology, educational challenges, teachers' role, parents' role, and future learning experiences.

1. Digital Learning and Technology

According to Tootell, Freeman & Freeman (2014), Putri & Umah (2020), Höfrová, Balidemaj & Small (2024), Leyts (2024), and Limna *et al*. (2024), Alphas has been the first generation to be fully immersed in *smart devices* ("electronic gadgets that can connect to the Internet,

interact with users and share data with other devices" – *Technopedia*), *AI* ("the application of computer systems able to perform tasks or produce output normally requiring human intelligence, especially by applying machine learning techniques to large collections of data" – *Oxford Languages*), and *online learning* ("education being delivered in an online environment through the use of the internet for teaching and learning" – Singh & Thurman, 2019) from an early age and, therefore, traditional teaching methods have also evolved to include *gamified learning* ("the application of typical elements of game playing (e.g. point scoring, competition with others, rules of play) to other areas of activity, typically as an online marketing technique to encourage engagement with a product or service" – *Oxford Languages*), *adaptive AI-driven education* ("educational system that leverages data analytics and AI to personalize the learning experience" – Strielkowski *et al*., 2024), and *interactive digital classrooms* ("classrooms that use interactive whiteboards or touchscreens, allowing educators and learners to engage with educational resources and multimedia resources in an interactive manner" – Saxena, 2024). Digital learning has brought several *advantages* for students (Putri & Umah, 2020; Akpen *et al*., 2024): accessibility and flexibility: they can learn at their own pace and access materials anytime and anywhere, which is especially beneficial for those with different learning styles; adaptive / personalized learning: they are allowed to receive customized content based on their progress and needs; enhanced engagement: they find interactive elements like discussion fora, gamified learning, and multimedia resources more engaging; skill development: they benefit from digital learning that fosters critical thinking, self-discipline, and technological literacy.

2. Educational Challenges

Hutajulu, Agustiani & Setiawan (2024), Höfrová, Balidemaj & Small (2024), Lad (2024), Leyts (2024) and Limna *et al*. (2024) have noted that the COVID-19 pandemic disrupted Alphas' early education, which resulted in *learning gaps* ("the difference between what a student has learned – i.e., the academic progress he or she has made – and what the student was expected to learn at a certain point in his or her education, such as a particular age or grade level" – *Learning Gap*) and *behavioural challenges* (actions or patterns of behaviour that make it difficult for a student to function effectively in educational settings: aggression, anxiety, defiance, difficulty following rules, or impulsivity), while increased screen time has raised concerns about *mental health* ("state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well,

and contribute to their community" – *Mental Health*) and *socio-emotional development* ("the convergence of social and emotional growth" – Thompson & Virmani, 2012, Runcan, 2020, Runcan, Nadolu & David, 2023, Sârbu *et al*. 2022). Astapenko *et al*. (2021) analysed the problem of the influence of macro-social factors determining psychological development trends in Generation Alpha and found that "the dependence of the level of children's immersion in digital gadgets results in an increase of their anxiety and a decrease of self-esteem". Digital learning has brought several *challenges* for students (Tootell, Freeman & Freeman, 2014; Akpen *et al*., 2024): digital divide: they may not have equal access to reliable internet and digital tools, which can widen educational inequalities; distractions and motivation issues: they may struggle with self-motivation and focus without a structured classroom environment; reduced social interaction: they may have feelings of isolation and decreased collaboration with peers and instructors.

3. Teachers' Role

According to Höfrová, Balidemaj & Small (2024), teachers have adapted by using ("a style of education in which students learn via electronic and online media as well as traditional face-to-face teaching" – *Oxford Languages*).

Teachers are adapting to new technologies in the classroom in three ways (Carvalho, Ferreira Monteiro & Pereira Martins, 2022; Chu, 2025; Nelson, 2025; Slagg, 2025): *collaborating and developing professionally* through *peer support and sharing best practices*: they collaborate to exchange ideas and strategies for effective tech integration; and *training programs*: they attend courses and workshops to stay updated on emerging technologies; *overcoming challenges* through *addressing accessibility issues*: they work to ensure all students have equal access to technology and Internet resources; and *balancing tech and traditional methods*: they find ways to blend digital tools with traditional teaching to maintain student engagement; *using digital tools for engagement* through: *educational apps & AI tools*: they leverage AI-powered tools to assist with lesson planning, grading, and adaptive / personalized learning; and *interactive technologies*: they use *augmented reality* ("a technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view" – *Oxford Languages*), *virtual reality* ("the computer-generated simulation of a three-dimensional image or environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors" – *Oxford Languages*) to make

complex subjects more accessible and engaging; and *learning management systems*: they facilitate communication, organize materials, and track student progress through platforms like Google Classroom and Moodle.

4. Parents' Role

Leyts (2024) purports that *parental involvement* ("active participation of parents in all aspects of their children's social, emotional, and academic development, including expectations for their academic future, control over homework, assistance with school assignments, and physical presence at school" – *Parental Involvement*) is paramount because parents need to act as co-educators, i.e., help their children navigate *digital learning tools* ("computers, tablets, software, applications, or other technology necessary to access a school's program of digital learning" – *Digital learning tools*). Astapenko *et al*. (2021) found, in their study, that "in families where children spend virtual leisure time, child parent relations are characterized by a reduced level of acceptance of the child, the desire for cooperation and symbiosis with him". Parents' role in Alphas' education is crucial because of the latter's immersion in digital technology, which means they have the following responsibilities (Tootell, Freeman & Freeman, 2014; Chitra, 2020; Indriani, 2024; Lad, 2024; Limna *et al*., 2024; Pattrawiwat, 2024; Scott, 2025, Runcan & Runcan, 2025): *encouraging social and emotional development*, i.e., providing opportunities for face-to-face interactions and outdoor play to foster social skills; *guiding digital literacy*, i.e., teaching children how to access information responsibly and critically evaluate online content; *instilling ethical values*, i.e., teaching responsible technology use and ensuring children develop strong moral foundations; *setting boundaries*, i.e., supervising screen time and ensuring a balance between digital and offline activities; *supporting personalized learning*, i.e., helping children navigate AI-driven educational tools that cater to individual learning needs.

5. Future Learning Experiences

Alphas' future learning experiences are likely to be shaped by (Drugaș, 2022; Animashaun, Familoni & Onyebuchi, 2024; Coolsaet, 2024): *hyper-connected social lives*: their social interactions (in which virtual friendships and communities playing a major role) will be driven by digital platforms; *instant gratification culture*: they will expect immediate responses and tailored content because of high-speed Internet and AI-driven personalization; *interactive learning*: they will enjoy gamified and adaptive education, with AI tools customizing

lessons to individual learning styles; *personalized learning platforms*: their learning experience will be customized by their teachers "to accommodate student's individual needs, strengths, and goals", shifting away from the one-size-fits-all model and empowering learners to take ownership of their education (*What is personalized learning?*); *phygital* (*physical* + *digital*) *reality*: they will no longer distinguish between online and offline worlds, as augmented reality and virtual reality will blend seamlessly into their everyday experiences; *seamless AI integration*: they will be helped with education, creativity, and even emotional support by AI-powered assistants as an integral part of their daily lives; *virtual reality*: they will be provided immersive, interactive learning experiences through applications in health and medical education, in humanities and social sciences, and in science, technology, engineering, and mathematics.

Conclusions

The conclusions of this study show that Generation Alpha's education is one of the most complex issues in nowadays' society. On one hand, there is *digital learning and technology*, a social phenomenon that no one can deny; on the other hand, there are *educational challenges*, the *teachers' role*, the *parents' role* – aspects that are rather easy to identify – and *future learning experiences* that we can only imagine.

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