

THE CREATION GENERATION



THE WHITE PAPER

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EXECUTIVE SUMMARY

Platforms such as Roblox and Minecraft are leading a groundbreaking shift in gaming for Generation Alpha, moving beyond simple gameplay in pre-made environments to empower players to build and shape their own digital worlds and stories. This shift marks the rise of "creation gaming," a mode where the act of self-directed building and creativity are central to the gaming experience. This new paradigm offers Generation Alpha unprecedented levels of autonomy, creativity, and control, enabling them to collaborate with peers, develop diverse skills, and reshape their educational journeys and outcomes.

Intrigued by the potential of this emerging trend, we delved into its implications for the educational goals of Generation Alpha and the novel prospects it unveils. Our findings reveal that creation gaming is transforming how children explore creativity, learn new skills, and participate in educational endeavors through play; nurturing vital cognitive, social, and creative competencies, bolstering academic achievement and personal development. Furthermore, there's a noticeable eagerness among children to blend creation gaming and play-based learning within their school curriculums, underscoring the perceived educational value of these games.

Yet, challenges remain, especially for children from lower-income families who may not have the means to obtain the necessary technology and opportunities to immerse themselves fully in creation gaming. This disparity affects not just their involvement but also their ability to tap into the educational benefits these games offer. Bridging these gaps is crucial to ensuring every child can reap the learning benefits provided.

Despite the challenges, creation gaming is becoming a powerful educational resource, opening up fresh paths for learning and skill enhancement. The advantages for children engaged in both playing and creating are substantial, indicating a promising horizon for the advancement of educational innovation and technology.



GENERATION ALPHA: THE EDUCATIONAL LANDSCAPE AND CHALLENGES

Approximately every two decades, classrooms welcome a new cohort of students whose outlooks, abilities, behaviors, and challenges are molded by the distinct context of their era. These students introduce innovative perspectives and demand adjustments in educational practices to better serve their requirements.

Identified as individuals born from 2010 (coinciding with the introduction of the iPad) to 2025, Generation Alpha is projected to be the most populous generation in global history. With over 2.8 million births worldwide each week, their numbers are expected to reach nearly 2 billion by the time the last of them are born.

This represents 2 billion people whose choices and values will have a profound impact on the direction our world takes in the next hundred years, offering a significant chance to inspire and direct them onto beneficial paths right now. At present, most of them are younger than 12 years old, which is a crucial stage in shaping their character, abilities, and core principles.

In this vital period, providing the right guidance and support is paramount, especially as they face a world that is becoming more complex and fast-moving. Yet, the current educational system is not adequately prepared to fulfil these needs.

Research by The World Economic Forum suggests that 65% of students starting primary education today will end up in jobs that do not currently exist, due to technological advancements both eliminating old roles and creating new opportunities. The learning infrastructure we have in place is hindered by outdated syllabi, restricted access to high-quality materials, and considerable obstacles to essential innovations and technological progress.

In essence, at a time when more is required, the educational offerings are falling short. However, when the classroom fails to provide what they need, they are taking the initiative to seek out the necessary learning on their own.

By the age of eight, members of Generation Alpha are expected to exceed their parents in technological proficiency. And they are poised to play a significant role in developing and utilizing the metaverse and spatial computing, pushing the boundaries of virtual reality and leading advancements in this area.

They are maturing in an era where immersive creation games, or "proto-metaverses," are a norm, which is evident in their activities.

They are proactively learning through new tools, platforms, types of play and interaction in virtual environments.

And they will increasingly desire consistency between their learning environments inside and outside the classroom, emphasizing meaningful and relevant educational experiences.

A notable shift in behavior is observed in 'creation gaming', whereby platforms promote the act of creating as the core tenet of the gameplay itself. Consequently, it's gearing up Generation Alpha to engage in co-creation, collaboration, and learning via innovative, immersive experiences, potentially unlocking fresh opportunities within the education industry.

And today, that thread of active participation has become a central characteristic of Generation Alpha. Even though they operate in virtual environments they are engaged drivers of them, which will subsequently influence their expectations in the real world. They embody a generation of co-creators. This is the reason we have dubbed them 'The Creation Generation'.



GENERATION ALPHA: THE EDUCATIONAL LANDSCAPE AND CHALLENGES

A STEEP DECLINE IN EDUCATIONAL ENGAGEMENT

But Generation Alpha's innovative spirit and growing penchant for collaborative creation starkly contrasts with their waning interest in traditional education. The [2023 Gallup and Walton Family Foundation-State of American Youth Survey](#) revealed a worrisome trend: as students age through K-12 education, their eagerness to learn significantly diminishes.

The reasons behind this growing disinterest may stem from curriculums that feel irrelevant and teaching methods that fail to leverage technological advancements or accommodate diverse learning preferences. The implications of this are profound, not just for individual student outcomes but for the future of education as a whole. It raises critical questions about how schools can adapt to better meet the needs of a generation that is, by all accounts, markedly different from those that came before.

THE PROFOUND IMPACT OF PANDEMIC LEARNING LOSS

The worsening decline in student engagement has been significantly intensified by the pandemic's extensive learning deficits.

Labeled by [The New York Times Editorial Board](#) as the most severe disruption ever faced by American education, the pandemic's toll has deeply affected K-12 learners across the nation.

Despite the historic [\\$190 billion in COVID-19 relief funds](#) provided to schools by the federal government, the largest investment in U.S. education history, the pandemic's impact on learning remains deep and enduring.

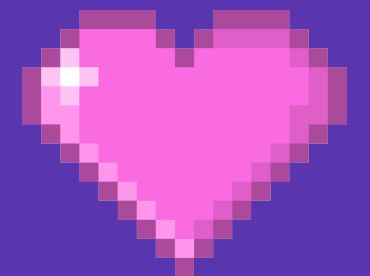
A staggering [one in five K-12 students](#) is grappling with more than half a year's delay in learning due to the pandemic, leading to about [30% of students being classified as "chronically absent"](#) – a situation worsened by habitual class absences over several years.

This crisis's impact is far from just perceptual; it's quantitatively confirmed by a marked downturn in academic achievements. According to surveys, [60% of K-12 parents](#) have noticed a detrimental effect on their children's education during the pandemic's first year, with 44% witnessing ongoing negative repercussions.

Academic scores in math and reading have hit record lows, with third graders sliding back the equivalent of [two decades](#) in educational progress and eighth-grade scores dropping in 49 out of 50 states.

Research from the [Center for Education Policy Research at Harvard University and Stanford University's Educational Opportunity Project](#) reveals that students from grades 3-8 have endured a loss equivalent to half a year in math and a quarter year in reading.

Comparing this with data from the decade before the pandemic indicates a bleak recovery scenario: affected students regained only [20-30% of their lost educational ground](#) in the first year following disruptions, with no further progress in the years that followed.



EXPLORING THE WORLD OF CREATION GAMING

Facing the dual challenges of declining educational engagement and the profound setbacks of pandemic learning losses, the need for innovative solutions in the education sector has never been more urgent. Generation Alpha, at the forefront of these challenges, finds itself in a unique position to navigate this changing landscape.

Their pivot towards creation gaming is emerging not just as a preference but as a response to the widening gap in educational engagement and the significant setbacks induced by pandemic learning losses. By harnessing the dynamic, interactive platforms of creation gaming, there's a promising avenue to rekindle engagement and address these educational challenges head-on; pointing towards a future where learning transcends conventional boundaries, blending play and education in ways that could both mitigate the current decline in educational engagement and redefine what it means to learn in the 21st century.

TRACING THE EVOLUTION OF PLAY AND CREATION IN CHILDHOOD EDUCATION

Marshall McLuhan once said: “Anyone who tries to make a distinction between education and entertainment doesn’t know the first thing about either.”

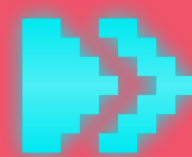
In 1836, Friedrich Froebel established the inaugural kindergarten for children under the age of seven, pioneering the use of block-based toys to promote experiential learning and illustrate the world's interconnected nature. Froebel's method encouraged a progression from straightforward to intricate constructions, nurturing a comprehension of the universe through creative engagement.

This concept of constructivist learning gained further traction with pioneers like Maria Montessori, who introduced wooden tools for teaching math, deepening the hands-on learning experience.

In the aftermath of World War II, LEGO emerged as a contemporary advocate for block play, marketing its bricks as instruments for serene yet engaging play that spurred children to collaboratively address substantial projects.

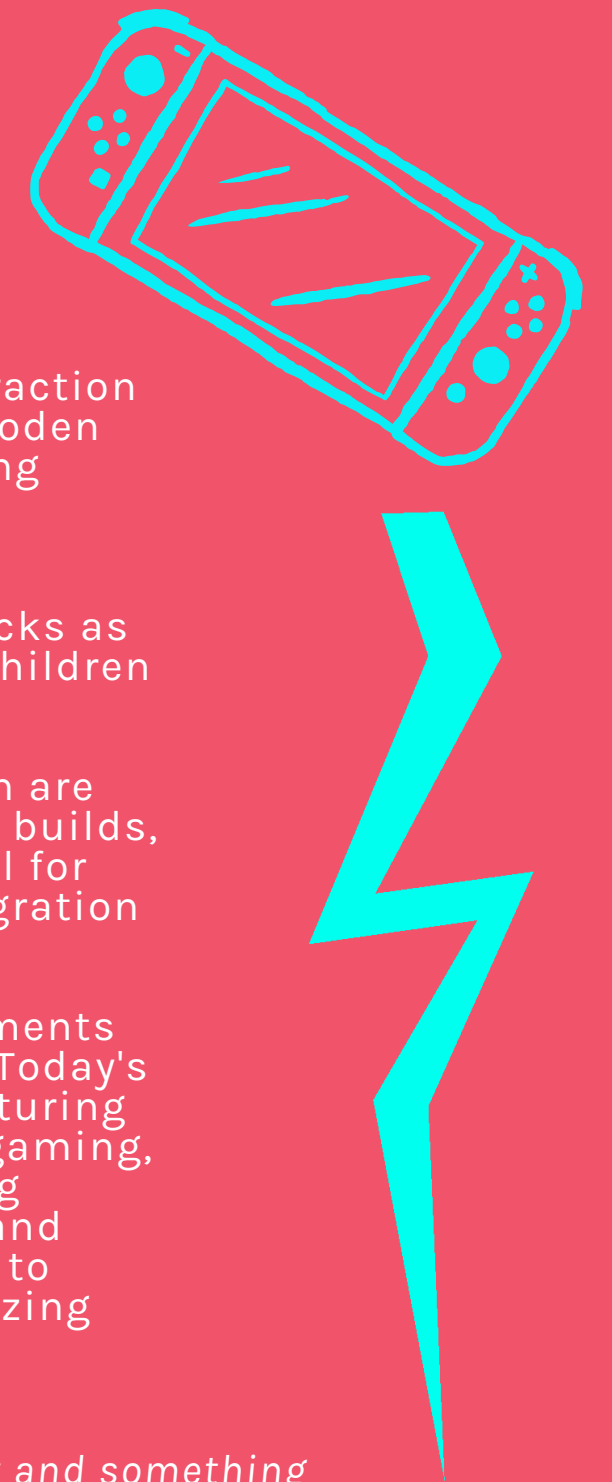
These examples underscore an enduring reality: children are innately inventive. Whether through make-believe, LEGO builds, or Playdoh creations, the process of creation is essential for cognitive development, boundary pushing, and the integration of novel concepts.

Fast forward to the present, and technological advancements have revolutionized how children engage with creation. Today's children, particularly those of Generation Alpha, are venturing into creation gaming, or user-generated content (UGC) gaming, as a primary mode of learning and play. This new gaming paradigm moves beyond the traditional entertainment and escapism offered by video games, encouraging children to design, build, and invent within virtual worlds; emphasizing creation over consumption.



Although creation gaming may feel relatively new and something that's gaining momentum, creation as a play mechanic has been ingrained in our psyches and hardwired into our DNA for so long. We have always built and we have always created. If you think about the earliest years, building towers, playing with LEGO, creating stories, imaginative worlds - these are all things that are typically just part of our play psychology.”

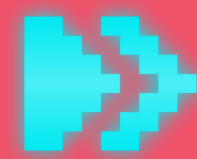
- Matt Vernon-Clinch, PRELOADED



EXPLORING THE WORLD OF CREATION GAMING

Through platforms like Roblox, Minecraft, and Fortnite Creative, they are not just playing in worlds created by others but are actively shaping their own digital universes and adventures. This shift towards creation gaming represents a significant evolution in gaming and digital interaction, making the creative process as important as the game play itself.

But it's also about freedom.



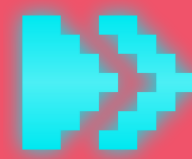
"Kids have a lot less ability to free play these days and be out of sight of adults, to experiment and make mistakes and whatever else. And maybe that's what creation gaming is. It's replacing what would have been the playground or running off to the creek. And a structured video game is not that, right? Instead it gives them those opportunities for real unbridled play."

- Michael B Horn, Adjunct Professor at Harvard Graduate School of Education and Future Of Learning Advisory Board Chair at Guild Education.

The UN recognizes play as a fundamental right for children, but the scope for free play in the modern world is increasingly constrained by limited physical freedoms and heightened parental supervision. The spontaneous explorations that once defined childhood are now often curtailed, leaving fewer opportunities for unstructured play in the real world.

However, the digital landscape offers a new frontier for free play and creation gaming platforms especially have emerged as vital spaces where children can exercise their imaginations without bounds. Within these digital playgrounds, they find the freedom to invent, explore, and interact in ways that the real world increasingly limits.

The report "A Panorama of Play" by the Digital Futures Commission (Cowan, 2020) identifies eight critical elements of free play: intrinsic motivation, voluntary participation, social engagement, emotional connection, creative expression, active involvement, openness, and variety. Creation gaming fully encapsulates these.



"I would call it free play. You will see it in school playgrounds, it's when they're making their own rules or there aren't rules or they change them halfway through and they're co-creating with each other. And what they're doing I think in the creative modes of these sandbox games, is the thing they've always done, they just have a different set of tools to do so."

- Anna Rafferty, VP; Digital Consumer Engagement, LEGO

As such, creation gaming's continued proliferation furnishes a venue for digital discovery and inventive expression but also bestows upon Generation Alpha a profound sense of autonomy and identity. And its rapid expansion from niche interest to mainstream phenomenon underscores the significance of it in today's digital and educational landscapes, marking it as a crucial area of focus for understanding the future of play, learning, and creativity.

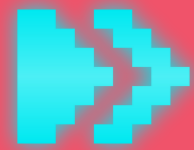


EXPLORING THE WORLD OF CREATION GAMING



UNDERSTANDING CREATION GAMING TODAY

Creation gaming, as it stands today, represents a paradigm shift in the gaming industry, with games available on platforms like Roblox, Minecraft, and Fortnite Creative leading the charge. At its core, it transcends traditional gameplay by making the act of creation the main focus.



“Coming back from the pandemic, we've had kids who have spent one and a half, two years on self-motivated, self-driven learning on these platforms, devoted to their passions and interests.” -

- David Kleeman, SVP, Global Trends, Dubit

Players are no longer mere participants within pre-designed narratives and worlds; they are the architects of their own digital realms. This innovative approach empowers users to design, build, and share their unique environments, characters, and adventures, leveraging a set of tools and interfaces provided by these platforms.

And the boundaries are as limitless as the player's imagination. From constructing intricate worlds in Minecraft to designing complex game modes in Fortnite Creative, and developing immersive experiences in Roblox, players of all ages are engaging with content creation in ways that blur the lines between play, learning, and digital craftsmanship. This evolution not only enriches the gaming landscape but also fosters a sense of ownership and creativity among players, offering a deeply personalized and interactive way to experience games, and presenting an expansive canvas for exploration.

THE FORCES BEHIND THE ASCENDANCE OF CREATION GAMING

The surge in popularity of creation gaming among Generation Alpha can be attributed to several key factors, each reflecting broader technological and societal shifts.

First and foremost, the unprecedented level of access to devices among this generation has laid the groundwork for this trend. From an early age, children are becoming fluent with smartphones, tablets, and computers, devices that serve as gateways to vast digital landscapes. This early and easy access to technology has made digital literacy almost second nature to them and has also opened up new avenues for engagement and creativity through gaming.



“I like to think of it as a new literacy. Every student that we produce should have some knowledge of code and how code works. And how to control the screen versus it controlling you.”

- Warren Buckleitner, Assistant Professor at The College Of New Jersey and Editor of Children's Technology Review

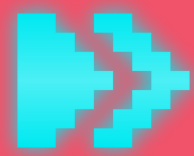
Additionally, the proliferation of user-friendly creation tools within gaming platforms has played a crucial role. Games like Roblox, Minecraft, and Fortnite Creative offer intuitive interfaces and resources that demystify the process of digital creation. These platforms are designed to be accessible, allowing young users to experiment with building and coding in environments that are engaging and fun. The ease of use encourages even those without prior experience to dive into the process of creating their own games, worlds, and stories.



EXPLORING THE WORLD OF CREATION GAMING



Reflecting this, a [GWI report from 2022](#) stated that demand for building tools within games has seen a notable increase, rising by 7% to 43% amongst Generation Alpha. This demand is particularly pronounced among children aged 8-11, who show a higher interest (49%) compared to those aged 12-15 (37%). The trend is even more evident in Minecraft, where 65% of 8-11-year-olds engage with building tools compared to 50% of 12-15-year-olds, underscoring the significant role these platforms play in fostering creativity and technical skills among younger generations.



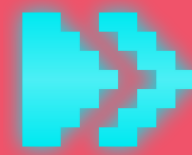
“Creation gaming is such a social process - all of these creation game ecosystems are fundamentally social first. So I think that's a massive opportunity to interact with, watch and learn from the things that other people are doing and building in those spaces.”

- Matt Vernon-Clinch, PRELOADED

Furthermore, the creation gaming platforms are evolving into new social connection hubs. In a world where digital interactions are increasingly commonplace, platforms like Roblox have become spaces where Generation Alpha can socialize, collaborate, and share experiences with peers from around the globe. The social aspect of these platforms is a significant draw, providing a sense of community and belonging, where players are not just competitors or collaborators; they are part of a creative community, sharing ideas, feedback, and creations.

Finally, the concept of shared presence is a pivotal element within creation gaming platforms; offering a level of immersive socialization far surpassing what traditional social media can provide.

Unlike the passive interactions typified by scrolling through photos, liking status updates, or viewing shared links on social media, creation gaming invites players to engage actively with their friends in real-time. This interaction mirrors real-world socializing, where individuals participate together in activities, face challenges, or simply spend time in each other's company, fostering dialogue, collaboration, and mutual experiences as they progress. This sense of being together in a digital space has effectively transformed these gaming platforms into vibrant social networks for Generation Alpha. Here, they don't just play games; they build communities, share experiences, and forge connections, making these virtual worlds a significant backdrop for their social lives.



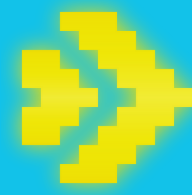
“I think it's going to fundamentally change Gen Alpha's interpretation of what a game is and what a game should be. They'll likely feel that older games are very restrictive in their capabilities, in the same way that we now feel that Pong is an incredibly simple game. They'll have a new standard.”

- Matt Vernon-Clinch, PRELOADED

The convergence of widespread device access, user-friendly creation tools, and the social connectivity and shared presence facilitated by the major platforms has solidified creation gaming's importance for Generation Alpha. This development marks a transformation in the gaming experience, moving beyond mere passive consumption to encompass active creation and social engagement. For Generation Alpha, gaming has evolved into an interactive realm where the lines between entertainment, creativity, community and learning blur, reshaping their digital and social landscapes.



THE KEY PLAYERS: ROBLOX: INFINITE REALMS OF IMAGINATION



"I look at Roblox and I'm amazed at the level of creativity and ingenuity. A.I. is a relatively new addition to the creation toolkit, but many are still creating stuff by learning to use 3D software, they're having to learn to write programming. A lot of them are starting little companies, they're figuring out how to do business and developer deals with each other. They've got game designers, they're forming teams and this is all being started by anyone from 13 to 18 years old. It's amazing."

- Matt Warneford, CEO, Dubit

With its expansive ecosystem that fosters creativity, learning, and social interaction, Roblox has carved a niche for itself as a leading immersive platform for connection, communication and creation gaming, which that resonates strongly with Generation Alpha, who represent 29 million of the platform's daily active users as of Q3 2023. Central to its allure is the platform's ability to act as a vast canvas for the imagination, enabling users to delve into personalizing avatars, crafting worlds, and cultivating communities.

The journey of Roblox began with its inception by David Baszucki and Erik Cassel in 2004, officially launching in 2006. Initially a simple space for users to create their own environments, Roblox swiftly transformed into a diverse universe filled with user-generated games and worlds. It offers endless possibilities, from constructing buildings and running businesses to engaging in battles, playing sports, and attending concerts –all with a sense of shared presence, collaborative creation and play.

At its core, Roblox revolves around two main elements: Roblox Studio and Robux.

Roblox Studio is the platform's free proprietary creation engine which is designed to be simple and accessible, enabling creators, especially children and teens, to develop games and experiences with minimal need for advanced programming skills. This accessibility has recently been further enhanced by the introduction of A.I. tools that allow creation through straightforward text prompts. All of this encourages not just play but also learning and the development of valuable skills in design, problem-solving, and digital literacy.

Robux is the virtual currency in Roblox, and plays a pivotal role in the platform's ecosystem, especially for Generation Alpha users, functioning as a medium for transactions within the Roblox universe. It enables the purchase and sale of various virtual items and experiences, adding a layer of economic realism and engagement.

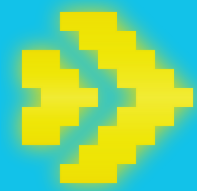
The platform's user base has grown substantially, particularly during the pandemic, with daily visitors reaching 71.5 million from across the globe at the start of 2024. These users engage in millions of active experiences, ranging from adventures and role-playing to simulations and educational content

This diversity ensures that Roblox offers something for every interest, keeping users engaged and continuously discovering new facets of the Roblox universe.



THE KEY PLAYERS: ROBLOX: INFINITE REALMS OF IMAGINATION

The demographic is primarily young, with 58% of users under 16, based on data for the full year, 2023. The US and Canada represent 22% of Roblox usage, with Europe at 28%.

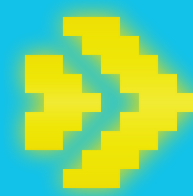


“For an eight-year-old, Roblox will be an engaging alternative to a local playground on a rainy day. A middle or high school student can tour ancient Rome, join a mission to Mars, or learn a foreign language with students halfway around the world.”

- Dave Baszucki, Co-founder, Roblox

For Generation Alpha specifically, Roblox extends beyond gaming to become a vital space for social connection. Research by Pangrazio & Gaibisso conducted in 2020 found that children have expanded their definition of social media to include Roblox, especially for those aged 7-12 years who view it as a key platform for fostering a sense of togetherness.

In essence, Roblox represents a convergence of play, creativity, and learning, tailor-made for Generation Alpha. It not only provides entertainment but also offers educational content and a platform for social connections. The blend of fun and functionality, alongside opportunities for individual expression and collaborative efforts, positions it as an indispensable creation gaming space for the next generation of digital natives.

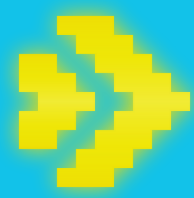
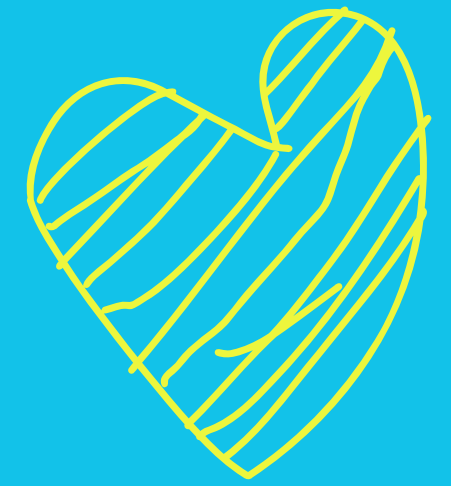


“I’m getting it. For my 11-year-old daughter, Roblox isn’t a game. It’s a meeting place; it’s where she plays with her friend who I forced her to leave behind when we moved country. It’s not stupid or useless, but one of the many places where she meets others to create. Because she’s a creator, the natural, human type.”

- Katerina Bohle Carbonell, [There Is Nothing New Under The Sun](#), June 2023



THE KEY PLAYERS: MINECRAFT: THE WONDROUS WORLD OF BLOCKS



“Christopher Slayton, 18, spent two months exploring black holes, identifying the colors of Saturn’s rings and looking at his home planet from outer space. He didn’t have to leave his desk to do so. Instead he set out to build the entire observable universe, block by block, in Minecraft, a video game where users build and explore worlds. By the end, he felt as if he had traveled to every corner of the universe.”

- [The New York Times, 2022](#)

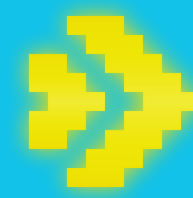
Minecraft, a game that has become a cultural phenomenon since its release in 2009, is a virtual sandbox that offers players endless possibilities for creation and exploration. Developed by Mojang Studios and now owned by Microsoft, it's unique for its iconic blocky, pixelated graphics and its focus on player-driven creativity.

Within Minecraft, players place and break various types of blocks in a three-dimensional environment. They can then mine these blocks and use them to craft tools, build structures, or create complex machines.

The game has two main modes: Survival and Creative. Survival Mode is akin to a classic game scenario, where players are dropped into a new world and must fend for themselves. The key elements in this mode are gathering resources, maintaining health, and survival against environmental hazards and enemies. Players mine for materials like wood, stone, and ores, and then craft tools, weapons, and armor to protect themselves. They also need to gather food to stave off hunger. As the game progresses, players can explore deeper aspects such as enchanting items, brewing potions, and venturing into alternate dimensions like the Nether or the End.

Creative Mode, on the other hand, is where Minecraft's essence as a creation game truly shines. In this mode, players have unlimited access to all game resources and items, and they are free from health, hunger and enemy concerns, allowing them to focus solely on building and creation. Players can also fly in Creative mode, facilitating the construction of large or complex structures. This mode serves as a digital canvas where imagination and creativity are the only limits. From constructing simple homes to building elaborate cities, sculptures, or functional computers using redstone (Minecraft's version of electrical wiring), Creative mode is a tool for artistic and architectural expression, as well as for experimentation and learning.

These distinct modes contribute to Minecraft's broad appeal, accommodating different player preferences and making it a versatile and enduringly popular game.



“[My daughter] is in Montessori, and I think there's more similarity between what she's doing in Minecraft and what she's doing at school because they have some structure to the day, but that structure is very open. It's a lot of self-initiated work. She's learned that it's up to her to decide what she wants to do and that she is the source of her own learning. She is the source of her own entertainment. And because of that, I think she behaves really similarly in the game.”

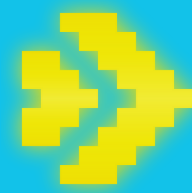
- Kaitlin Maud Moon, Mother of An 8 Year Old Minecraft Player



THE KEY PLAYERS: MINECRAFT: THE WONDROUS WORLD OF BLOCKS

Minecraft's simplicity is deceptive. Beneath its straightforward block-building mechanics lies a complex game with a variety of elements including the previously mentioned redstone circuits, enchantments, potions, and a diverse array of biomes and creatures. This complexity adds depth to the gameplay, appealing to both casual players and those interested in more intricate projects. Additionally, Minecraft doubles as a pedagogical instrument, fostering the development of abilities in areas like resource allocation, geometric understanding, and introductory coding principles.

To encapsulate it all, Minecraft elevates itself beyond conventional confines of video gaming by providing a space for inventive thinking, discovery, and learning. Its charm is rooted in its dual nature as both an engaging entertainment medium and a conduit for educational and creative endeavors.



“Minecraft encourages kids to get under the hood, break things, fix them and turn mooshrooms into random-number generators. It invites them to tinker.”

- [The Minecraft Generation, The New York Times.](#)



THE KEY PLAYERS: FORTNITE + LEGO: BOUNDLESS BRICK-BASED CREATIVITY

Although Fortnite might not typically resonate with Generation Alpha, given that 60% of its players are within the 18-24 age range and 22.5% fall between the ages of 25 and 34, the game's recent push towards enhancing creation gaming experiences on its platform merits mention, serving to further underscore the significance of this growing gaming dynamic.

Initially, Fortnite gained fame through its battle royale mode where players compete to be the last one standing in a shrinking play area. However, with the integration of Unreal Engine's advanced development tools, Fortnite has evolved into a platform for player-centric creativity and innovation. This evolution is most evident in Fortnite Creative, a mode that allows players to design and construct their own worlds within the Fortnite universe.

Fortnite Creative provides an array of tools and assets that players can use to create custom gameplay experiences, ranging from races and obstacle courses to entirely new game modes that differ significantly from the battle royale template. This sandbox feature leverages Unreal Engine's robust capabilities, enabling users to craft detailed environments, implement unique gameplay mechanics, and share their creations with the broader Fortnite community.

The transition to a sandbox universe has opened Fortnite to a wider audience, appealing not just to gamers who enjoy competitive play, but also to those interested in design, creativity, and community collaboration. It has effectively turned Fortnite into a platform where imagination and creativity are as critical to the experience as survival skills, marking a significant shift in how the game is played and perceived.

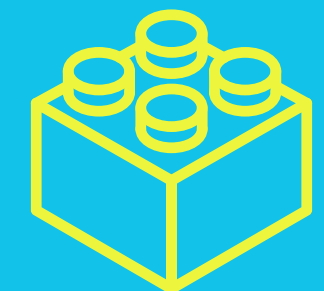
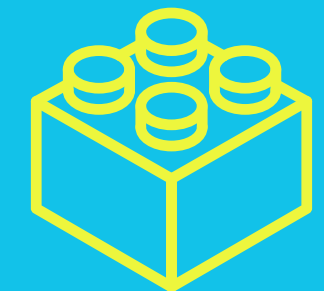
The recent partnership with LEGO broadens the scope of creation gaming even further to captivate younger audiences and enthusiasts who revel in hands-on, creative play, underscoring the growing significance of shaping a gaming future where players are as much creators as they are participants.

The groundbreaking game merges the best of both brands. Utilizing LEGO's iconic building blocks within Fortnite's dynamic and interactive world, encouraging creativity and innovation by introducing players to an expansive universe where the limits are bound only by their imagination. They can build elaborate structures, design intricate worlds, and explore environments that are as vast as they are varied, using a range of tools and materials, allowing for an unprecedented level of detail and creativity in construction.

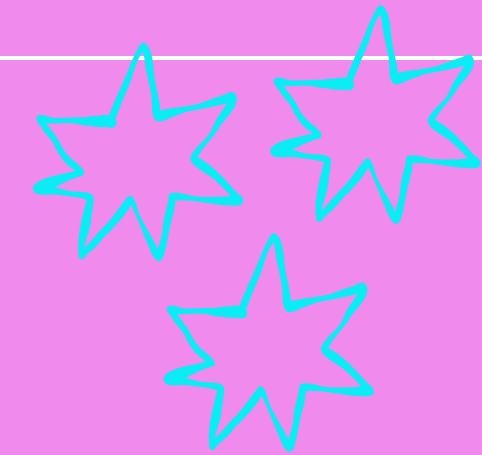
The game emphasizes community and collaboration, inviting players to share their creations, explore worlds built by others, and even join forces to build massive projects together. The sandbox-style play, shared creativity and community engagement has drawn comparisons to the

spirit of Minecraft, but the beloved action-packed, competitive elements of Fortnite remain central, with players able to engage in battles, complete missions, and compete as teams.

In essence, the Fortnite x LEGO game is a vibrant, interactive canvas for players, offering the thrill of Fortnite's gameplay with the boundless creativity of LEGO. It stands as testament to the evolving nature of video games as platforms for innovation, expression, and connection.



THE INTERSECTION OF CREATION GAMING AND EDUCATIONAL INNOVATION



GAMING AND CONTEMPORARY EDUCATION

Gaming's role in education has significantly transformed, transcending its traditional entertainment role. Its value for learning purposes is gaining traction, leading to a more deliberate incorporation into teaching methodologies.

Modern educational frameworks incorporate video games for basic practice but also to deepen understanding and provide immersive experiences. This includes educational courses that cover the creation and analysis of games, offering students practical insights, from understanding game design to recognizing their application as learning tools.

The use of computer games in classrooms, historically limited by technological access, skills gaps among educators, and the need for substantial time investment, is evolving. Games are now utilized to simulate complex real-world issues, such as epidemic management, to facilitate connected and experiential learning.

Moreover, educational programs are expanding the scope of gaming to include applications in healthcare, higher education, corporate training, and military preparation, underscoring its broad impact.

But our focus is not on traditional educational gaming, where games are merely tools for teaching, instead we're exploring a more profound concept: the transformation of gaming into a learning experience, as David Kleeman [articulates](#), it's the subtle but significant difference between the 'gamification of learning', and the 'learnification of gaming'.

This is the central tenet which underlines what creation gaming is all about.

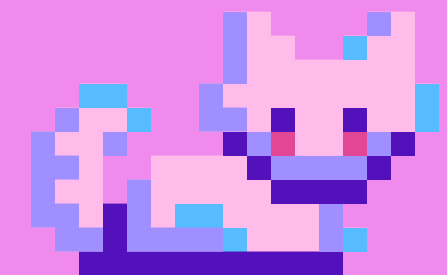


"We try to atomize the world into segmented studies, but that's not how it works. These creation games transcend that in really cool and sometimes unpredictable ways. When we do segment within games and say "Okay, we're just going to use this to build math", the games get dumber and the kids see through that. It's not to say that it's a worthless endeavor but there's more burnout in those games because the students can't stretch and create and imagine and change the rules to create new games or new simulations or new opportunities. And so the struggle is can it ever pervade the formal education system as long as we continue to construct the curriculum into these atomized blocks and domains?"

- Michael B Horn, Adjunct Professor at Harvard Graduate School of Education and Future Of Learning Advisory Board Chair at Guild Education.

THE IMPACT OF CREATION GAMING ON EDUCATIONAL PARADIGMS

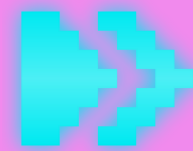
In 2006, the comedy film "Accepted" was released, telling the story of unconventional high school graduates who create a fictitious college, The South Harmon Institute of Technology (S.H.I.T.), after being rejected from all of their applications. Though the initial premise starts out as a way to appease their parents, ultimately, they engage in a unique educational journey, teaching each other both bizarre and practical courses and over time, the group of enthusiastic learners challenges traditional norms, embrace non-conformity, and develop their own unique learning space. At a pivotal moment in the movie, Justin Long's character confronts a traditional university intent on closing S.H.I.T., asking, "Why can't we both exist?", highlighting the appeal of creating one's own educational path, where students can co-author their own curriculums.



THE INTERSECTION OF CREATION GAMING AND EDUCATIONAL INNOVATION

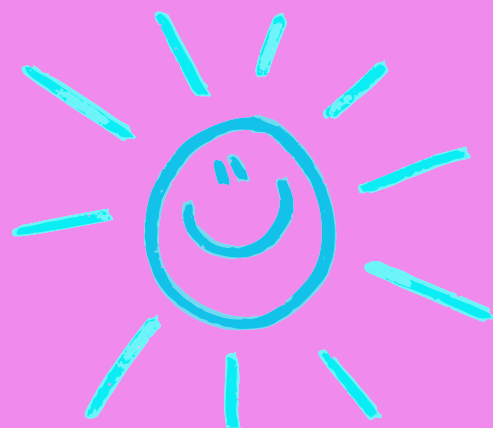
This concept mirrors the self-directed and initiative-taking behavior we're now seeing within creation gaming. These platforms serve as blank slates, transforming into launchpads for learning, encouraging critical thinking, skill acquisition, collaboration, and the construction of 'choose your own' adventure pathways.

Recognizing this, major creation gaming platforms have begun tapping into the educational opportunities their environments naturally offer.

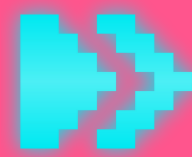


"In fact, as tech-driven learning tools gain an even stronger foothold, creation game companies are vigorously waving their hands to be recognized for their future advancements. They are asking for a seat at the table to bring their knowledge base and visions of a changing virtual space to the forefront of the education community."

- Adrian Gimate-Welsh, CEO and Founder, TagWizz



ROBLOX'S VENTURE INTO EDUCATIONAL REALMS



“When I joined Roblox in 2020, I laid out our plan to support 100 million students learning on our platform by 2030. We envisioned a robust educational ecosystem that preserved the excitement, friendship, and exploration our users feel when engaging with Roblox experiences like games, simulations, musical events, and open immersive worlds.”

- Rebecca Kantar, Head of Education at Roblox

Countless teenagers and younger children have embarked on their first journey into programming by learning Lua, the scripting language used by Roblox, often representing the first technical education many of them will receive.

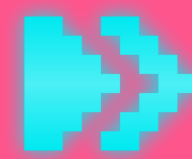
In recent years, Roblox has found its way into classrooms, teaching a wide array of subjects from physics to climate change through custom-built simulations and interactive games. These tools help students grasp intricate concepts in a more dynamic and engaging manner.

The launch of Roblox Education in 2018 marked a significant step towards integrating coding into children's education by providing resources directly to educators. This program included 12 hours of detailed tutorials, handouts, and guides, all available under a Creative Commons license for teachers to adapt and use freely. Since then the scope of Roblox's educational content has significantly expanded.



In November 2021, the introduction of the Roblox Community Fund (RCF) represented a commitment to enriching educational content on the platform. The RCF awards grants to developers and educational organizations crafting curriculums and experiences that utilize Roblox's immersive capabilities for learning, like navigating through ancient Rome or understanding the historical impact of redlining. This initiative supports entities such as Project Lead the Way and Filament Games in creating these educational experiences, emphasizing the unique advantages of using a 3D, interactive platform for education.

Recent months have seen the fruition of many such projects, indicating the growing impact of Roblox's integration into educational spaces and showcasing the platform's potential as a powerful learning tool beyond its entertainment value.



“We started with looking at partners who could offer a breadth of content, and develop educational experiences around the major core subjects. Whether you teach English, science, math, social studies, our goal was to provide educators across any subject with curriculum-based content and show them the incredible possibilities with immersive learning.”

- Adam Seldow, Senior Director of Education Partnerships at Roblox



ROBLOX'S VENTURE INTO EDUCATIONAL REALMS

"Mission: Mars," a collaboration between the Boston Museum of Science and Filament Games, challenges students to create and construct a rover for Mars exploration and survival. Utilizing authentic NASA data, the game turns the development of science and engineering skills into an exhilarating experience.

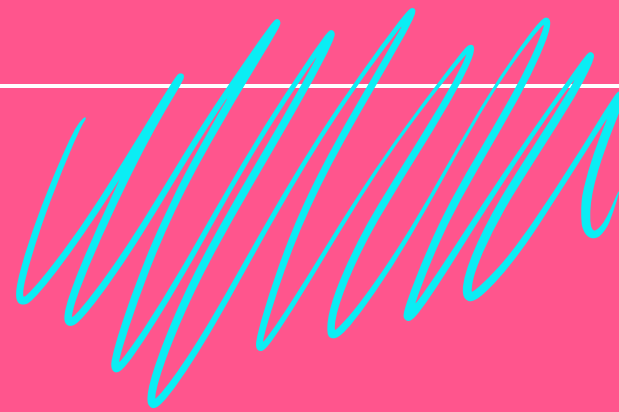
In "Pathogen Patrol" by Project Lead The Way (PLTW), students work together to safeguard a patient from harmful pathogens. Assuming the roles of white blood cells, they discover strategies to preserve the patient's health.

"CodeCombat Worlds" by CodeCombat transforms every player into a creator. By engaging in quests and utilizing coding skills in Lua, students can practice coding through adventures with friends and their coded pets whilst also taking the leap into creating their own worlds. They are equipped with advanced tools that simplify the coding process, making it accessible for anyone to bring their ideas to life.

"RoboCo Sports League," a collaborative effort between FIRST Robotics and Filament Games, taps into the realistic physics engine of Roblox to offer an unrestricted environment for students to conceptualize, construct, and operate any robot they envision. This initiative aims to augment and broaden the reach of FIRST's captivating hands-on robotics programs and competitions, inviting more participants into the fold.

Numerous other projects are currently in development and will be introduced over the coming months.

These educational games, though diverse in subject matter and curriculum focus, all highlight the significance of social and collaborative play, which is a cornerstone of the Roblox platform.



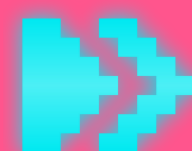
They promote unity, encouraging players to join forces, and solve challenges together, thereby tapping into Roblox's essential social framework and the vital role of teamwork and collective problem-solving in educational advancement.



"The social learning aspects of Roblox are so important to us in our pursuit of educational experiences, we make it a requirement in the Roblox Community Fund that those aspects are built in, the games have to be team-based, it has to be a social learning experience because we see the benefits of students working together to accomplish a task as being very similar to people working together to accomplish goals in business, in healthcare, in every aspect of life, in government. And those skills are extremely difficult not only to teach, but to assess in traditional classrooms."

- Adam Seldow, Senior Director of Education Partnerships at Roblox

In the near future, Roblox is planning to broaden its educational focus to include health and wellness, as well as social emotional learning, recognizing the potential of immersive experiences to cultivate qualities like grit and perseverance—competencies that are challenging to impart through conventional classroom methods. Consequently, a significant portion of their funding is being directed towards developing games that foster these essential 21st-century lateral skills.

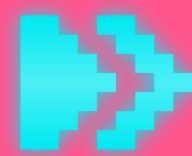


"At this point, [Roblox] is highly supplementary, it's highly immersive, it's highly social, and it provides a way to deepen understanding."

- Adam Seldow, Senior Director of Education Partnerships at Roblox



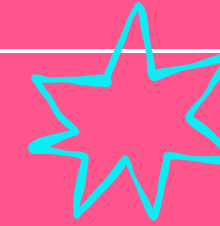
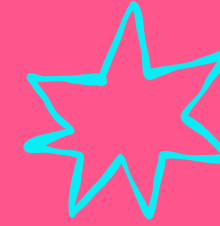
MINECRAFT'S ENTRY INTO THE EDUCATIONAL ARENA



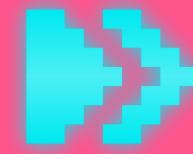
"I think it was a challenge before the pandemic, getting people to understand the power of game-based learning and are we just really introducing young people to more gameplay? But during the pandemic, suddenly there was an awful lot of educators starting to think, 'what tools do we immediately have that can address this need where we've suddenly sent children home and we can't connect to them?'. And gaming became one of the key solutions. So from our perspective, Minecraft really stepped in, particularly in the K-12 environment in leveraging remote teaching and allowing learners to still look at applications, not just knowledge acquisition. And now, I think a few years on, we're beyond the question of, 'is it right? Does it make a difference?' and we're into the questions of, 'how do we do it better? How do we do it safer? How do we do it properly? How do we engage more educators?' And post pandemic, you've got challenges with communities, disengaged and disconnected, and so if we can make learning exciting, fun, enjoyable, immersive yet again, do we get a better return? Well, yeah, we do. And so use Minecraft to do that, because actually your children come alive when they play the game so use that as an engine to really engage in the course subject."

- Justin Edwards, Director Of Learning Experiences, Minecraft/Microsoft

Minecraft's widespread appeal among children has led to its adoption as an educational resource by both parents and schools, accelerating with the launch of Minecraft: Education Edition in 2016. This version, now referred to simply as 'Minecraft Education,' is tailored for classroom use, allowing teachers to moderate the game environment to ensure a safe and focused community by disabling violence, chat, and environmental hazards like falls, fire, and drowning.



It offers a plethora of activities across various disciplines, from history and language arts to science, enabling students to engage deeply with the material. For instance, educators have leveraged the game to create immersive worlds featuring historical sites or to model biological structures like an animal cell, facilitating interactive learning experiences.



"The majority of our projects are actually run by Municipality education systems, by districts or by Ministries of Education and are being embedded that way. There tends to be an experienced one or two teachers in every school who then drive it and use it."

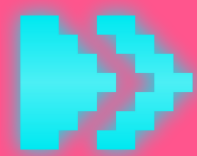
- Justin Edwards, Director Of Learning Experiences, Minecraft/Microsoft

The scope of Minecraft Education has continued to expand, offering even more detailed and compelling educational experiences. Students have the opportunity to reconstruct UNESCO World Heritage sites, such as the Pyramids of Giza and the ancient city of Pompeii, providing insights into architecture, history, and ancient cultures.



MINECRAFT'S ENTRY INTO THE EDUCATIONAL ARENA

Their collaboration with BBC Earth saw Minecraft introduce five Frozen Planet II worlds, using engaging gameplay to educate students about the polar regions and the impacts of climate change. As they navigate through these meticulously crafted worlds, learners encounter a variety of interactive elements and wildlife native to polar environments, all designed to mirror their real-life counterparts. This digital adventure is more than just an exploration; it serves as a dynamic classroom where the complex subjects of climate change and its profound effects on these fragile ecosystems are brought to life. By engaging with the game, students witness firsthand the melting ice caps, the shifting habitats of polar fauna, and the broader ecological changes, providing a compelling visual and interactive representation of climate science.



“One story that struck me was a professor in Israel who was trying to teach the mathematics behind quantum mechanics. Suddenly his students are out of his classroom and he can't engage with them there. So he built a Minecraft escape room. And in that Minecraft escape room, you actually had to solve the puzzles using quantum mathematics. And so suddenly children or students in this case were accessing new forms of education and the barriers of ‘does it change attainment?’, ‘does it make a difference?’, ‘is it just gameplay?’ completely evaporated. To the point that the students actually started building their own escape rooms based on quantum mathematics, and now it's become a feature of his course.”

- Justin Edwards, Director Of Learning Experiences, Minecraft/Microsoft

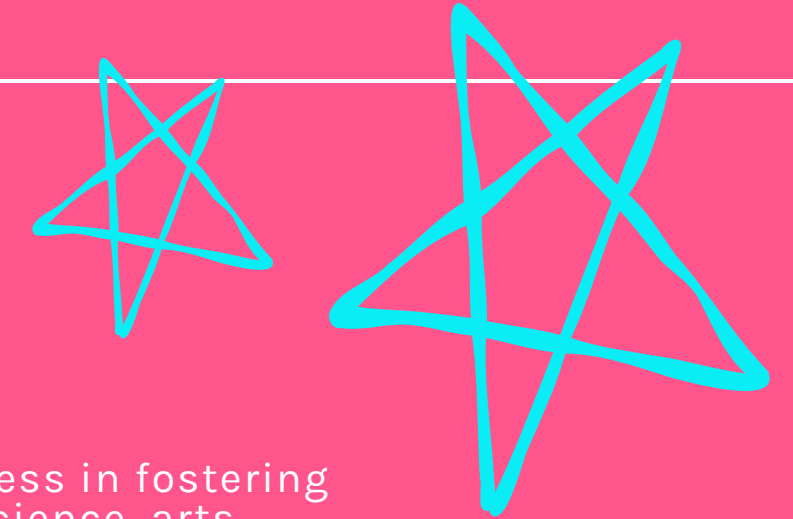
Research has underscored Minecraft's effectiveness in fostering educational growth in areas like mathematics, science, arts, languages, and social studies, in addition to highlighting its potential to enhance spatial skills and information literacy within STEM education.

Another study explored a Minecraft challenge involving 118 students demonstrating the game's capacity to boost motivation, teamwork, and programming skills, according to [Karsenti and Bugmann, 2017](#).



“She has YouTube Kids on her iPad and she went on there and she was like, ‘Minecraft videos’. And so she started watching videos on how to set up a server and do mining. And now she is building things that are so incredible that I could cry; they're so beautiful and intricate and mind blowing - like houses that are shaped like things that she sees out in nature. She has no preconceived notion of what is architecturally correct or what is normal, so she's building these extremely intricate spaces with three-story water slides. And Minecraft doesn't have a native water slide. She built a thing to function as a water slide. So it's just incredible to watch and now has me cautiously optimistic about other games and her playing with other people.”

- Kaitlin Maud Moon, Mother Of An 8 Year Old Minecraft Player



MINECRAFT'S ENTRY INTO THE EDUCATIONAL ARENA

Minecraft Education is likely to continue expanding its library of educational content, adding more subjects, lesson plans, and interactive experiences that align with curriculum standards worldwide. Improving and introducing new tools for educators to customize learning experiences more effectively is also a probable focus, as well as seeking out new partnerships with educational organizations, museums, and cultural institutions to create unique experiences.

In addition, given the emphasis on STEM education globally, Minecraft Education is expected to further enrich its coding and STEM-related offerings. This could involve more sophisticated coding challenges, integration with popular programming languages, and partnerships with coding education platforms to provide a pathway for students from block-based coding to text-based programming.

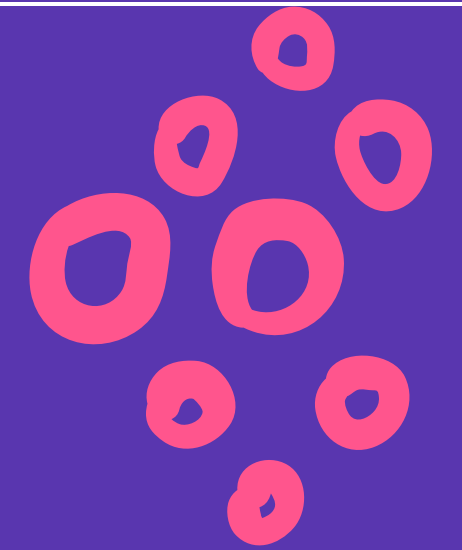


“What I love about Minecraft is the elements of STEM that are built into the game. I walked in on my youngest once, diverting lava down into water so it solidified to make a gap. So we've got physics going on here, we've got elements of engineering, almost town planning, because he was building a settlement all within this one game. That really typifies the power of these sandbox worlds to educate. And that's really exciting to me.”

- Jo Redfern, Managing Director, Kids Division, Wind Sun Sky



CREATION GAMING AND CRITICAL SKILLS



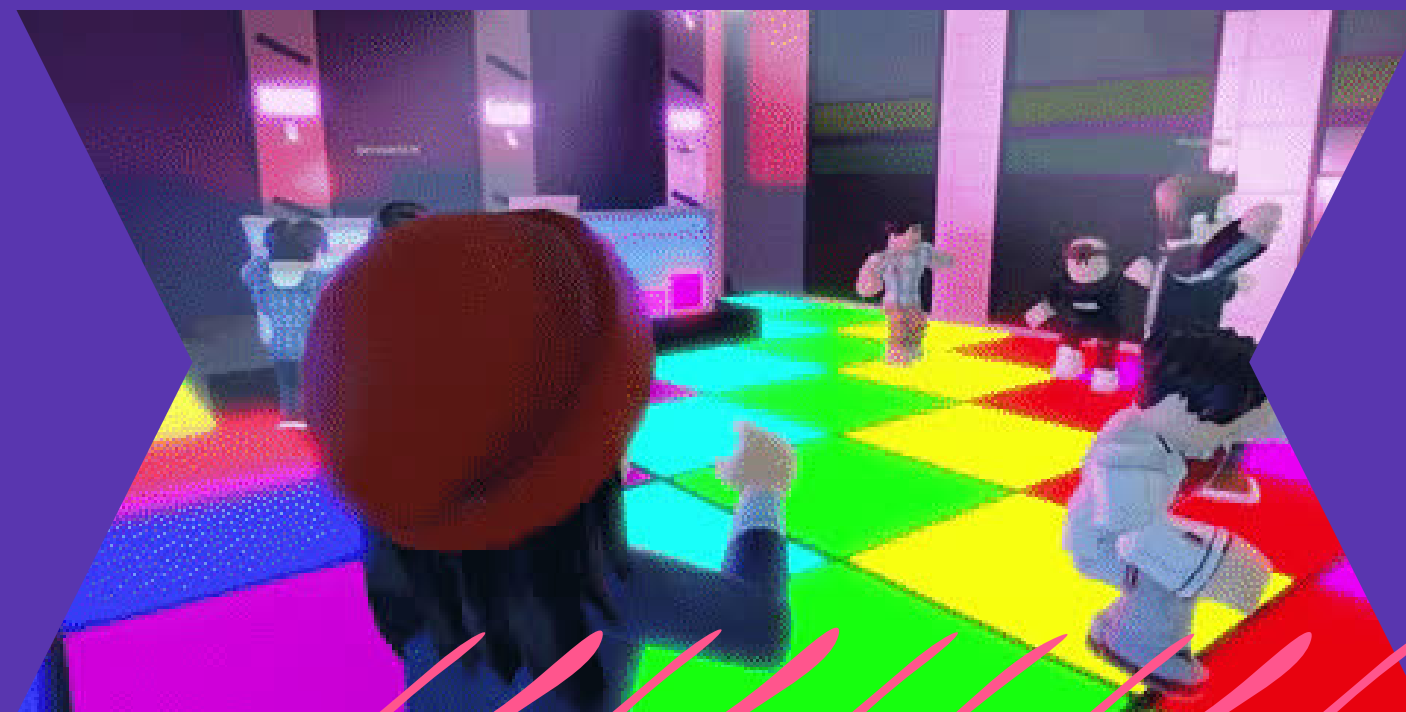
The progress made by Minecraft and Roblox in merging creation gaming with education has been notable, signalling a clear direction for the future of learning. This approach promises to enhance student engagement, enrich educational experiences, and potentially mitigate some of the educational deficits resulting from pandemic-induced learning disruptions.

However, the impact of these gaming platforms extends beyond just daily education and specific subjects; recent research has highlighted their role in enhancing vital lateral skills needed for the 21st century. Such skills are crucial for Generation Alpha to thrive in a future labor market filled with unpredictability, emphasizing the importance of being adaptable to new challenges.

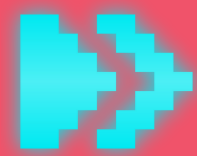
For instance, engagement in Roblox and Minecraft is linked to the cultivation of creativity, problem-solving abilities, teamwork, and logical thinking. Players who engage more deeply in the creation aspects of these games exhibit even stronger skills in these areas, indicating that the act of creating plays a fundamental role in leveraging the developmental benefits these platforms offer.

Kids also see these games as platforms for unleashing their creativity, recognizing the significant role these games play in nurturing their creative skills and encouraging the use of their imagination.

Moreover, it was found that children link their activities in Roblox and Minecraft to key skills that form the foundation of character development: creativity, growth mindset, proactivity, purpose, and social intelligence. These competencies are associated with broad positive impacts, including better academic performance and higher educational achievement (Duckworth et al. 2007; Gajda, Karwowski & Beghetto 2017), increased self-efficacy, and overall life satisfaction (Ruch, Weber, Park & Peterson 2014).



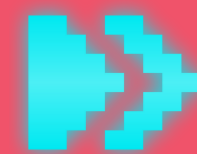
GENERATION ALPHA'S LEARNING LEAP: THE EDUCATIONAL ADVANTAGES OF CREATION GAMING



“It really is about power and giving the power to the kids again. I just love to introduce a smart kid to a new piece of technology and see the lights turn on.”

- Warren Buckleitner, Assistant Professor at The College Of New Jersey and Editor of Children's Technology Review

Our exploration into the innovative realm of creation gaming, epitomized by platforms such as Roblox and Minecraft, has illuminated a significant shift in the gaming and learning experiences of Generation Alpha. This shift is not merely a trend but a transformative movement towards active participation and creativity in digital spaces. As these young individuals engage in building and shaping their own virtual worlds, they are not only playing; they are learning, creating, and collaborating in ways that traditional educational environments have yet to fully embrace.

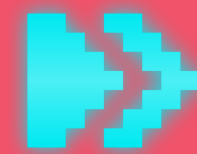


“How can we be coaches, mentors and facilitators of learning? We need to evolve quickly because young people are finding education boring. I've seen it. If they want to know the answer of how displacement works, they'll go and look it up on YouTube. Or TikTok. Or even Minecraft. Wherever it's articulated they'll source that, so how do we facilitate that? Gaming is one of those places that people will turn to for teaching or better curriculum knowledge to fill in the gaps that otherwise are not being satisfied by school systems.”

- Justin Edwards, Director Of Learning Experiences, Minecraft/Microsoft

The findings of our research reveal that creation gaming fosters a unique blend of freedom, autonomy, and agency, enabling Generation Alpha to acquire diverse skills, from critical thinking and problem-solving to collaboration and digital literacy.

These skills are invaluable, transcending the boundaries of gaming to impact educational trajectories and expectations profoundly. As such, creation gaming is not just reshaping how children play; it is redefining how they learn, signaling the move towards more personalized, engaging, and experiential learning models.



“If you look at the world we're in today, you can basically find the answer to anything. Technology is changing all the time, the world of work is changing all the time. What's the skill you want to teach people? Well, it's how to be resourceful, how to be resilient, how to be creative and self-sufficient, a lot of which is the basis of creation gaming.”

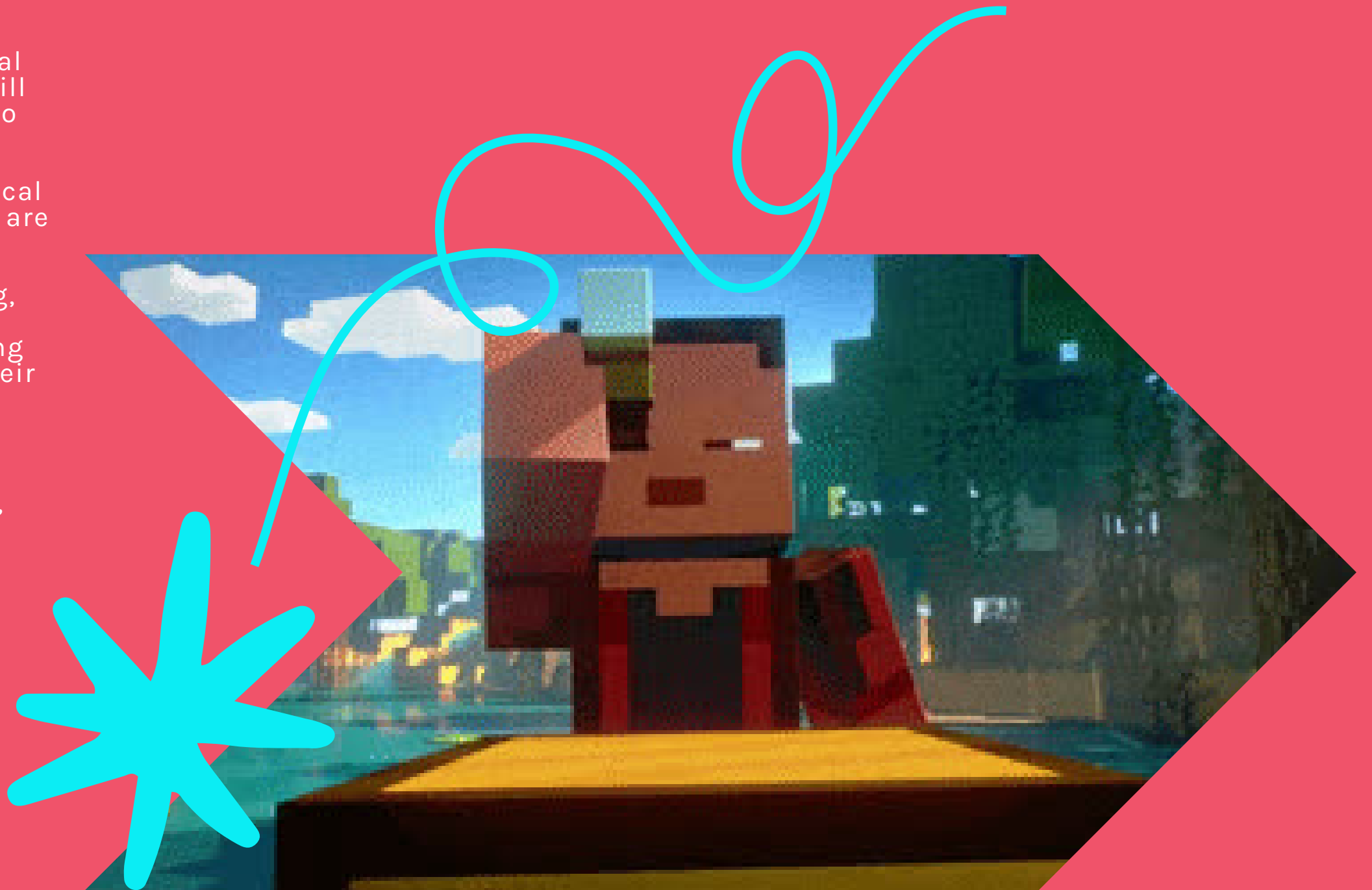
- Matt Warneford, CEO, Dubit



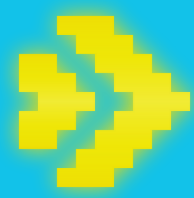
GENERATION ALPHA'S LEARNING LEAP: THE EDUCATIONAL ADVANTAGES OF CREATION GAMING

Looking forward, the implications for educational theory and practice are profound. Educators, policymakers, and game developers alike must recognize the potential of creation gaming as a pedagogical tool that can complement traditional learning methods, offering new pathways for engagement, skill development, and educational achievement. As we continue to delve into the possibilities and challenges of integrating creation gaming into educational frameworks, it is clear that this movement holds the promise of unlocking new pedagogical frontiers, paving the way for a future where learning and play are inextricably linked.

In embracing the opportunities presented by creation gaming, we stand on the cusp of a new era in education. One that harnesses the creative energies of Generation Alpha, preparing them not just for the future of work, but for a future where their capacity to imagine, create, and innovate is limitless. Our journey into this nascent field is just beginning, but the potential to revolutionize educational expectations and outcomes for Generation Alpha is evident, offering a glimpse into a future where the boundaries between learning, playing, and creating are seamlessly blended.



PROTECTING PLAYFUL MINDS: THE CHALLENGES AND CONSIDERATIONS FOR KIDS IN CREATION GAMING



"I'm frustrated in a large sense because of a violation of the holy ground. That's what Fred Rogers called the space between a young child and the screen. A four or five, six year old, 10, 11, 12 year old is vulnerable and can be manipulated. And as an educator, we're trained to manipulate kids, right? We want to help them learn and grow. But commercialism has crept into the technology and has drowned out some people who've done really fabulous work in this space. And as a result, we have the current generation of parents who have been very turned off to what they call 'screen time'. They want to avoid it. But that's a complete tragedy because the interactive screen has so much potential for helping a child learn and to learn hard stuff. And so it's all there. The pieces are all there. We gotta help the parents, because they have just been poisoned. They don't want their kids to have access to these powerful tools because some of them are being used to manipulate the kids for commercial reasons, rather than education reasons. But we can't throw the whole baby out with the bathwater."

- Warren Buckleitner, Assistant Professor at The College Of New Jersey and Editor of Children's Technology Review

As creation gaming becomes an increasingly popular pastime for kids and a progressive opportunity for education, it brings with it a host of challenges and ethical considerations; from safeguarding children's data and privacy to ensuring equitable access across socioeconomic divides.

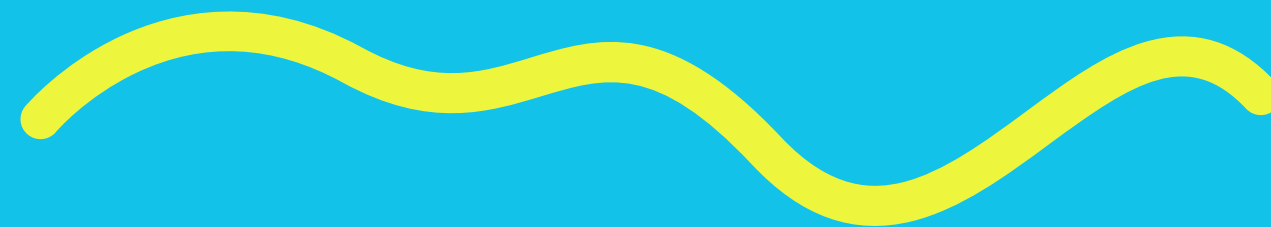
Whilst this whitepaper is not designed to delve deep into the complexities of nurturing children's creativity while protecting vulnerable minds in the vast, uncharted territories of digital creation and gaming, we do want to take the time to call out a few potential issues and concerns.

CHILDREN'S EDUCATIONAL DATA AND PRIVACY

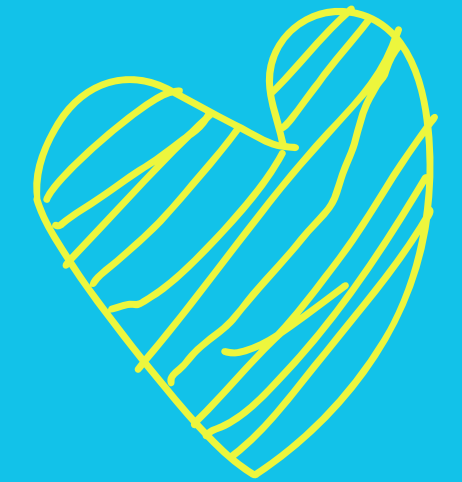
The digital age has transformed how educational content is delivered, engaging children through interactive platforms and apps. However, this shift raises significant concerns regarding children's educational data and privacy. As young learners navigate online educational tools, their personal information, learning patterns, and preferences are often collected, potentially exposing them to privacy breaches and unauthorized data use. The challenge lies in creating robust data protection mechanisms that safeguard children's information while still allowing for the personalized learning experiences that technology can offer.

CHILDREN'S LACK OF CRITICAL THINKING CAPACITY

Children, by virtue of their developmental stage, often lack the critical thinking capacity necessary to navigate the complexities of the online world. This makes them particularly vulnerable to bad actors and negative influences, ranging from misleading content to outright predatory behavior. Ensuring the digital space is safe for children requires concerted efforts to build their digital literacy, teach them critical thinking skills, and develop content that encourages discernment, all while actively protecting them from harmful actors.



PROTECTING PLAYFUL MINDS: THE CHALLENGES AND CONSIDERATIONS FOR KIDS IN CREATION GAMING



ACCESS AND DIGITAL DISENFRANCHISEMENT FOR LOWER HOUSEHOLD INCOMES

The digital divide remains a stark reality, with children from lower-income households often facing digital disenfranchisement. This lack of access to digital tools and high-speed internet can impede their ability to participate in digital learning environments, exacerbating existing educational inequalities. Bridging this divide requires targeted policies and programs that provide affordable access to technology and digital literacy training for underprivileged children and their families.

COMMERCIALIZATION OF PLATFORMS

The commercialization and manipulation of children through digital platforms are growing concerns. Children are often targeted by sophisticated marketing tactics that exploit their impressionability for commercial gain, from in-app purchases in games to personalized advertising based on their online behavior. Addressing this issue necessitates stricter regulations on advertising to children, transparency from companies about their data use, and education for children and parents about the commercial intentions behind digital content.

EFFICACY OF LEARNING OUTCOMES AND CREDENTIALING

The rise of digital education platforms has led to questions about the efficacy of learning outcomes and the value of credentials obtained through online learning. Ensuring that digital education is not only accessible but also effective requires ongoing research to validate learning methodologies, as well as transparent credentialing systems that are recognized by educational institutions and employers alike.

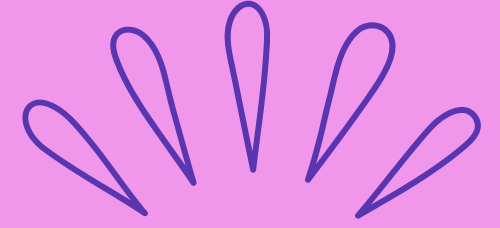
THE PITFALLS OF PERSONALIZATION AND FORCED PATHWAYS

While personalized learning experiences can potentially enhance educational outcomes, they also pose risks of creating forced pathways that limit children's exposure to a broad spectrum of ideas and discourage critical thinking and creativity. Over-reliance on algorithms to guide learning experiences can pigeonhole children into specific learning trajectories, undermining the holistic development of their skills and interests. Ensuring personalization enhances rather than restricts learning opportunities is a delicate balance that educators and technology developers must navigate.

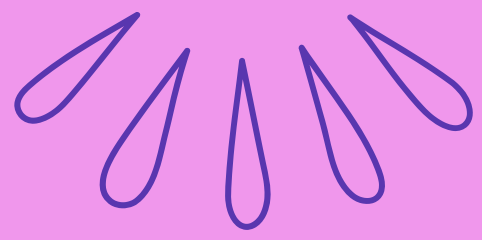
PARENTAL PERCEPTIONS AND GUIDANCE

Parental perceptions and guidance play a crucial role in navigating the challenges associated with digital learning and technology use. Parents must be empowered with knowledge and tools to guide their children's digital experiences positively. This includes understanding the risks and benefits of digital education, setting appropriate boundaries, and engaging with their children about their online experiences. Encouraging active parental involvement and providing resources for digital parenting are essential in fostering a safe and productive digital environment for children.





READ OUR TOP 8 RESEARCH FINDINGS HERE



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