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Discourse on AI vs. Human Interaction among Generation Z: Trends, Challenges, and Future Directions

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ABSTRACT

The drastic change in the acceptance and incorporation of artificial intelligence (AI) into social communication has been profoundly changed in Generation Z (Gen Z) interacts, builds, and maintains relationships and views human connection. This paper examines the shifting conversation about digital newborns from 1997 to 2012, specifically the debate over human interaction versus AI interaction, through a thorough literature review of more than 60 peer-reviewed sources. The finding shows that even though Gen Z is very adept at using AI-mediated communication using chatbots, recommendation algorithms, and AI-powered social media platforms with ease, reliance raises questions about social isolation, cognitive dependency, and the disappearance of traditional interpersonal skills. Recent trend shows that Gen Z uses AI for more efficiency, management of emotion, and personalised experiences, discovering it as a collaborative partner rather than software or a tool. Even so, problems like reduced in-person communication, algorithmic anxiety, and a loss of authenticity still draw attention to possible threats to emotional intelligence and critical thinking. To better understand this dynamic, the study proposes a conceptual framework that integrates the Human-AI Integration Theory, Digital Nativity Theory, and Technology Acceptance Model (TAM). According to the study, incorporating AI in a way that enhances communication while still preserving crucial human interaction is necessary. Ethical AI designs, Digital literacy programs, and additional ongoing research to evaluate long-term social and cognitive effects are among the recommendations. Developing an equilibrium relationship between technology and human connection will be essential for the prosperity of society as Gen Z takes on leadership roles in an increasingly AI-driven world.

Keywords: generation Z, AI-mediated communication, human-AI integration interaction, digital natives, emotional intelligence

Introduction

Generation Z's are those who were born between 1997 and 2012, is the first generation to have been totally engaged with technology from birth and are known as "true digital natives" (Dingli & Seychell, 2015; Khurana & Girdhar, 2024). This younger generation has seen how quickly relationships and connections have developed over time in their daily life, social interactions and how do they communicate, as well as relationship-building processes because of the incorporating artificial intelligence tools (Savin et al., 2024; Chardonnens, 2025). The boundary between how humans and machines talk to each other has become blurry because of some special things which Gen Z has adopted,

i.e. different ways of interacting with AI systems compared to how people did before Generations that grew up using digital technologies during their teen years or as adults (Toma & Hudea, 2024; Vinichenko et al., 2022).

As artificial intelligence advances and continues to grow from basic automation to more advanced chatbots, recommendation systems, and social media algorithms that shape how people communicate and see the world, the conversations about human and AI interactions, especially among Generation Z, have become more detailed and complexed (Arkhipova & Janssen, 2024; Przegalińska, 2022). According to (Savin et al., 2024; Vinichenko et al., 2021) the group of Generation Z displays a strong attribute to adjust to communication, which is mediated by artificial intelligence. However, this ease of adaptation also raises concerns and worries about the increasing reliance on the very technology, which over time could weaken in-person interaction. The adoption of such advancement raises the question of how AI integration will shape the future of Gen Z and the coming generations. We need to consider its impact on social development, emotional understanding, and the way digital natives build and maintain relationships. This development led us to consider that the widespread adoption of AI might shape our future, especially in areas like social skills, emotional understanding, and the way digital natives connect with others.

Understanding how Generation Z sees AI and how they connect with people is important for teachers, policymakers, tech creators, and social scientists. As this group begins stepping into leadership roles and influencing what's considered normal in tech and human connections, things start to get serious (Roblek et al., 2019; Mândraș, 2024). The way people interact with AI today might shape how future generations do the same. It could also affect how humans and AI live and work together in society later. That's why it's important to give this some proper thought and stay ahead of things (Piepiora, 2024; Joshi, 2025).

Even though there's a lot of research out there on these topics, the information isn't really connected or put together in a clear way. Most studies on how AI affects Generation Z usually look at one thing at a time, like emotional reliance, thinking skills, or social abilities, instead of seeing the whole picture. A lot of the discussion doesn't seem to be backed up by solid theory or long-term data, so it feels a bit uncertain or informal. As more of Generation Z moves into adulthood and starts taking on leadership roles, it's important for researchers and professionals to understand how their use of AI influences how they grow and develop.

To tackle these shifting problems, teachers, psychological health specialists, tech creators, and lawmakers need a clear way to understand what's going on, as well require a logical conceptual framework. The study proposes a simple framework that combines key ideas from previous research to bridge and fill in the gaps. The framework is to create a clearer way to look at how interactions with AI affect the growth and development of young minds that have grown up and been raised with digital technology.

Discourse on AI and Human Interaction

Emergence of Artificial Intelligence

Ever since artificial intelligence started becoming a part of how we connect and communicate, the way young people, especially those in Generation Z, see and interact with others has changed quite a lot. Their entire approach to social interactions, the way they share thoughts, and even how they build relationships have evolved in ways that didn't really exist before AI became so integrated into daily life. Studies and experts like (Aslam, 2023; Mekni, 2021) have pointed out that these shifts are major, emphasizing just how much technology and AI influence social behaviors among this younger generation. It's almost like AI has added new layers to their social worlds, reshaping not just how they communicate but also how they perceive their place in social spaces. The progression from early chatbots introduced back in 1966 to today's sophisticated digital assistants and AI-driven conversational agents has changed the way humans communicate. Artificial intelligence now plays a growing role in mediating our interactions, shaping the overall communication environment (Shad & Potter, 2024; Khan, 2020). The subtle, often unnoticed influence of modern AI systems, especially those embedded in social media via recommendation algorithms, has played an important role in shaping how Gen Z communicates, socializes, and consumes content (Arkhipova & Janssen, 2024; Sukmayadi et al.).

Today's advanced AI systems are reshaping digital interactions by using algorithms that adapt to each person's unique preferences, communication style, and emotional signals. This allows for a more personalized and engaging user experience (Chakravarthy, n.d.). The personalization extends beyond basic content organization, involving sophisticated emotional recognition and response mechanisms. These systems can adapt to users' psychological states, enabling AI interactions that more accurately reflect human emotional intelligence (Przegalińska, 2022; Aslam, 2023). For many in Gen Z, who have been surrounded by advanced AI technology for most of their lives, it's often hard to tell apart conversations or interactions that are assisted by these smart systems from those that come directly from another person. Over time, as AI has become more integrated into daily life, helping with everything from messaging to customer service, the line between real human connection and machine-generated responses has blurred a lot. This ongoing shift really makes you wonder what authentic communication even means anymore, especially when the AI on the other end can mimic human details so closely that it's easy to mistake a chatbot for a friend or a colleague. This has resulted in the development of new ways for people to connect and engage socially, blending elements of human interaction with advances in artificial intelligence (Toma & Hudea, 2024; Chardonnens, 2025).

Research shows that Generation Z hasn't adopted AI technologies rapidly; instead, their experience has been more gradual. Rather than seeing AI as entirely new software, these systems tend to be integrated into familiar platforms and devices they already use, blending smoothly into their daily digital interactions (Savin et al., 2024; Khurana & Girdhar, 2024). People who grew up surrounded by digital technology have really welcomed this kind of smooth integration. Digital natives today barely notice when they're chatting with AI anymore. Text conversations, whether with a bot or a friend, feel pretty much the same to them. This technology slipped into their daily routines so quietly that most don't even think twice about it. What used to seem futuristic now feels ordinary, like when smartphones went from being this amazing gadget to something everyone just expects to work. Research by (Vinichenko et al., 2022; Eberi-Kalu, 2025) backs this up, showing how these tools merged into digital conversations without the drama or resistance that older generations might have expected.

The whole thing happened gradually. One day people were typing to customer service bots, the next they were bouncing ideas off AI writing assistants, and somewhere along the way it all became routine. The boundaries between human and AI interaction got blurry, but nobody really minded because it just made things easier.

Table 1

Summary of Key Studies, Presenting the Authors, Year, and Main Findings on the Emergence of Artificial Intelligence.

Author and Year	Findings
Aslam (2023); Mekni (2021)	AI has drastically changed with a greater reliance on algorithm driven communication.
Shad & Potter, 2024; Khan, 2020	These days AI system have penetrated human world, and it have an imperceptible impact on Gen Zs communication preference.
Arkhipova & Janssen, 2024; Sukmayadi et al., 2024	For Gen Z, AI recommendation algorithms create highly customized user experiences by learning individual preferences and emotional patterns.

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Author and Year	Findings
Chakravarthy, n.d.	Advanced emotional recognition algorithms that adjust to users' psychological states are part of AI personalization.
Przegalińska, 2022; Aslam, 2023	Human emotional intelligence and AI interaction are similar bridging the boundary between humankind and AI mediated communication.
(Savin et al., 2024; Khurana & Girdhar, 2024	Rather than being adopted quickly, Gen Z's experience with AI has been characterized by its gradual integration into well-known platforms.

AI vs Human Interaction

Looking at how Gen Z talks to AI versus actual people shows some interesting patterns that mess with what communication experts thought they knew (Billano et al., 2021; Shorey et al., 2024). These natives aren't just randomly chatting; they're switching up their whole approach depending on who (or what) they're talking to. Arkhipova & Janssen (2024) and Thangavel & Chandra (2024) found that Gen Z reads the room differently based on whether they think they're dealing with something smart or just a basic chatbot. But here's where it gets messy: studying how Gen Z prefers to communicate with AI isn't as simple as researchers initially thought. The whole thing is more complex than just "young people like technology." There's this constant calculation happening in their heads about what kind of response they'll get and how to adjust accordingly.

Instead, these relationships tend to change quite a bit depending on the situation, the goal, and their emotional state (Lyngdoh et al., 2023; Nguyen et al., 2024). Gen Z tends to favor AI-assisted interactions more often than previous generations. They find it convenient because it is easy to access and gets the job done quickly. What really appeals to them is that talking to AI does not involve the kind of social judgment they might worry about with real people. Whether they're sending a quick message, figuring out a solution to a problem, or just searching for information, they seem to feel pretty comfortable relying on AI for those kinds of everyday tasks (Abed, 2024; Suresh et al., 2023) It's almost like they see AI as a reliable, non-judgmental tool that helps make their lives easier without the awkwardness or pressure that can sometimes come with human interaction. And according to (Billano et al., 2021; Bernard, 2020) AI hasn't fully taken over the importance of genuine human connection. Gen Z continues to prioritize face-to-face interactions when it comes to making important decisions, building relationships, and offering emotional support.

More Gen Z users are turning to AI for emotional regulation. They are using recommendation systems and content algorithms powered by AI to help manage their mood, ease anxiety, and handle social stress (Arkhipova & Janssen, 2024; Tabatabaei et al., 2024). Using AI systems intentionally to get certain types of content, like something that calms you down, distracts you, or makes you feel understood, can actually work to help manage your emotions. It turns AI into a tool that supports your mental well-being (Lyngdoh et al., 2023; Moharram & Mukherjee, 2023). It also brings up worries about people becoming too reliant on AI, possibly at the expense of traditional social support networks that help us manage emotions. This emphasizes how well Gen Z understands AI, but it also raises questions about whether this knowledge leads to spending less time connecting with others in real life.

Research shows that the interaction and engagement of Gen Z with AI differ from that of older generations. Generation Z shows their own unique and unique styles and modalities of interaction that aren't just minor differences; they reflect a different shift. When it comes to AI, it is very interesting to observe their technological use and expectations differently because they have grown up with so many

digital tools and software with instant access, which influences the way they respond to and engage with AI.

Digital natives tend to use AI's capabilities in ways that enhance human interactions rather than replace them. Gen Z are more at ease with AI interfaces and is more receptive to generated content (Milutinović, 2022; Arachchi et al., 2023). This difference suggests that digital natives are developing quite different skills in terms of working with AI. It's not about missing traditional social skills; instead, it might be more like these young people are changing new skills to thrive in our increasingly digital world. Their comfort and familiarity with technology seem to be shaping how they interact and collaborate with AI systems, like an adaptation to the environment we have created. This progress shows that what might look like a gap in social skills could be a natural shift, an evolution driven by the digital environments they grow up in. (Jarrahi & Eshraghi, 2019b) have pointed out that this pattern could be part of some broader developmental trend, where new competencies are emerging to meet the demands of our tech-centric age.

Table 2

S*ummary of the Selected Studies on AI Versus Human Interaction, Highlighting the Authors, Year, and Key Findings*

Author and Year	Findings
Billano et al., 2021; Shorey et al., 2024	Traditional theories of communication are challenged by the complex preferences and behavioral adaptations shown by Gen Z.
Arkhipova & Janssen, 2024; Thangavel & Chandra, 2024	Gen Z employs various expectations and interaction styles based on the perceived intelligence and skill of communication partners.
Lyngdoh et al., 2023; Moharram & Mukherjee, 2023	Relationships between Gen Z and AI are complicated and vary widely based on context, goal, and emotional needs.
Milutinović, 2022; Arachchi et al., 2023	For routine communications, problem-solving, and informational inquiries, Gen Z favors AI-mediated interactions because of their effectiveness and lack of social judgment.
(Jarrahi & Eshraghi, 2019b	These variations demonstrate special human-AI collaboration skills and are not due to a lack of conventional social skills, but rather to evolutionary adaptations to digital environments.

Gen Z in AI

Generation Z's connection with AI is notably strong and more advanced compared to previous generations, reflecting a deep familiarity and confident use of the technology (Barna Group, 2024). Recent studies show that members of Generation Z are really leaning into AI tools in interesting ways. They're using these technologies to create unique social spaces, customize the content they see so it feels more personal and relevant to them, and make their communication with others more effective. It's like AI has become a kind of secret weapon for them to shape their online worlds, stay connected in ways that matter most, and make their interactions more meaningful and engaging. They achieve this through a combination of deliberate strategic planning and a deep, instinctive awareness (Chardonnens, 2025;

Vinichenko et al., 2022). According to Hromada (2024) and Lindgren (2024), digital natives tend to see AI systems more as collaborative partners rather than just tools. This perspective shifts their engagement with AI from simple use to more active participation and teamwork.

The phrase "AI nativity" has been introduced to capture how Generation Z naturally understands the way AI systems work, how they behave, their limitations, and the strategies used to improve them (Lanfranchi et al., 2024; Bag et al., 2022). People from older generations often had to figure out how to adapt as AI tools and technologies started becoming part of everyday life. For many in Gen Z, though, it's a different story. They have grown up immersed in digital environments, so they naturally understand how AI communication works, how algorithms tend to behave, and what these systems can do. This familiarity isn't just at the surface level it enables them to use AI in more detailed and sophisticated ways. They can navigate complex interactions with AI, often making the technology work more smoothly for their needs. In many cases, this deep understanding means they're more comfortable experimenting with various AI applications and finding innovative ways to incorporate them into their routines or projects. (Ruslan & Aziz, 2024; Gamage, 2022) have pointed out how this early exposure and ingrained knowledge give Gen Z a unique edge when it comes to using AI effectively. Behaviors reflecting this naivety encompass fast attempts to optimize AI chatbots, deliberate efforts to gather content that can sway recommendation systems, and sophisticated manipulation of AI technologies to produce specific outcomes (Arkhipova & Janssen, 2024; Rosli et al., 2023).

According to research, the technology use of Gen Z has raised impacting social identity and expression. This procedure combines AI capabilities with human creativity, which opens the door of opportunity for individuals (Mândraș, 2024; Tabatabaei et al., 2024). As Generation Z is more relying on AI tools for content creation, social media management, and building their brands, the line between human creativity and machine-generated work is starting to disappear (Sukmayadi et al., 2024; Ayuningtyas et al., 2024). Digital natives' preference for AI incorporation into most of their lives is natural. They use AI-generated content to express their views in their own way, which is more efficient for them and even handles social situations through AI tools. This AI has not only become a tool for them, instead also has become a part of them while either connecting with others or representing who they are. This integration of AI and human is referred to as a "hybrid identity," where the identity reflects not only human or digital, but a combination of two strongly shaped environments, i.e AI and human. And it is not a matter of using technology, it is a matter of how technology affects Zen G's personalities, relationships, and overall outlook on their life, making their identities more dynamic than ever before.

Table 3

Summary of Studies on Generation Z and AI, Outlining the Authors, year and Main Findings.

Author and Year	Findings
Barna Group, 2024	Gen Z exhibits previously unheard-of connections and sophisticated utilization patterns, with both intuitive understanding and strategic intentionality
Chardonnens, 2025; Vinichenko et al., 2022	Gen Z employs AI to enhance the efficacy of communication, personalize content consumption, and create distinctive social spaces through cooperative partnership.
Hromada, 2024; Lindgren, 2024	Digital natives are moving beyond passive consumption to active collaboration, viewing AI systems as cooperative partners rather than tools.

Contd.

Author and Year	Findings
Savin et al., 2024; Arkhipova & Janssen, 2024	AI is widely used by Gen Z, with little demographic variation across cultural and educational backgrounds.
Arkhipova & Janssen, 2024; Al-Sharafi et al., 2023	Advanced prompt optimization, algorithmic influence strategies, and intricate AI system manipulation are behaviors that demonstrate nativity.
(Mândraș, 2024; Tabatabaei et al., 2024	The adoption of AI by Gen Z produces new forms of social identity and self-expression that combine human creativity with AI capabilities.
Sukmayadi et al., 2024; Ayuningtyas et al., 2024	The content that has been generated by AI is now becoming a part of social identity between digital natives erasing the boundaries between human and artificial creative work with the concept of "hybrid identity."

Challenges

Gen Z's reliance on digital tools and artificial intelligence is drastically increasing, and it has raised concerns about the quality of the relationship they have with humans as well as their individual growth (Roblek et al., 2019; Bowler, 2020). The recent publication from (Savin et al., 2024; Vinichenko et al., 2021) recognised that the reliance on artificial intelligence may foster cognitive dependence can overlook the thinking capacity of these digital natives. This over-dependence can narrow down the attention span and brainstorming. Likewise, the continuous use of artificial intelligence can even the need and urge of brainstorming, where, based on the report of (Carr, 2011; Turkle, 2015), Generation Z says that they do not feel like performing and solving intellectual activities without the support of artificial intelligence.

According to (Lyngdoh et al., 2023; Bowler, 2020), the common concern scenario among Gen Z is that of social isolation and inability to form a healthy relationship. Research shows that AI-driven communication can help to regulate emotions, functioning as an alternative to humans with face-to-face interaction. However, less communication and interaction with humans can hamper the development of empathy among Gen Z, along with the increase in issues like navigating complex issues by themselves (Bernard, 2020; Albescu, 2022). Those who overdepend on AI during communication become nervous and restless while speaking with a person. This buildup of fear in the social environment is known as "social anxiety amplification" (Lyngdoh et al., 2023; Răduț et al., 2023).

Digital natives have also shown that they are worried about their patterns with AI's incorporation as AI and are more concerned about their privacy (Vinichenko et al., 2021; Ho et al., 2022). Despite recognising the importance of AI influence that they could have, digital natives' concern about their independence remains the same. As AI systems are more developed in predicting their tastes, algorithms, and actions, there is still an issue regarding undermining human autonomy in making decisions (Vinichenko et al., 2021; Tabatabaei et al., 2024). By researchers, it is referred to as "algorithmic anxiety", especially when it comes to young people who were raised with digital technology around them. They are the ones who are very aware of how easily algorithms and AI are able to influence their perceptions, decisions and overall lifestyle choices. Without even knowing this technology, this system is invisibly impacting and influencing their online likes and choices. It is a discomfort that lingers after discovering that these digital instruments have such a strong influence on people. It can sometimes create uncertain or skeptical situations, wondering how much control they do have in this highly algorithmic

world. The fact that AI can collect and store data as well as smooth their behaviour with algorithm attachment without the knowledge of users is a concerning aspect (Ho et al., 2022; Salam et al., 2024).

The concern around "authenticity loss" has become more prominent as Generation Z faces increasing challenges in maintaining true self-expression. This is due to the prevalent influence of AI-driven recommendation systems and machine learning algorithms that shape the content they consume and share (Arkhipova & Janssen, 2024; Răduț, 2021). Spending a lot of time with AI-selected content and suggestions for communication can lead people to adopt similar ways of expressing themselves. This can make communication feel less creative and make it harder to tell whether someone's choices are really their own or just influenced by AI (Savin et al., 2024; Mândraș, 2024). In today's world, where artificial intelligence is woven into about every aspect of our communication, it makes you stop and think about what is happening to our sense of personal freedom and who we're becoming. When everything, from social media to customer service chats, is driven by AI, it's easy to wonder how much of our voice and choices are truly ours, and how much might be shaped or influenced by these unseen algorithms. This whole situation pushes us to consider what it means to stay authentic and maintain our individuality in an environment where machines are increasingly part of conversation.

Table 4

Summary of the Studies Highlighting the Challenges, with Details on Authors, Year, and Main Findings.

Author and Year	Findings
Roblek et al., 2019; Bowler, 2020	Acceptance of AI has resulted in significant problems that impact relationships and personal development, such as cognitive dependencies that impair critical thinking abilities.
Savin et al., 2024; Vinichenko et al., 2021	Frequent use of AI has been associated with developing cognitive dependencies, shortening attention spans, and decreasing the capacity for deep reflection and thought.
Carr, 2011; Turkle, 2015	Studies show that using AI lowers motivation for autonomous problem-solving, and some Generation Zers are hesitant to finish cognitive tasks without AI support.
Lyngdoh et al., 2023; Bowler, 2020	AI-mediated communication may result in a decline in interpersonal communication skills, a slowdown in the development of empathy, and trouble managing complicated human emotions.
Ho et al., 2022; Salam et al., 2024	"Algorithmic anxiety" is especially acute when it comes to AI systems that use unconscious data collection and behavioral modification.

Conceptual Framework for Gen Z in AI

Conceptual frameworks for understanding Gen Z's relationship with AI have primarily been developed from established technology adoption theories, social psychology models, and human-computer interaction frameworks, though they require significant modifications to address the unique characteristics of digital native populations (Milutinović, 2022; Sarp, 2023).The Technology Acceptance Model (TAM), originally introduced by Davis, has been widely adapted and expanded over time to better understand how Generation Z interacts with and adopts AI technologies. (Martinez & Martinez, 2024)

The literature supports that, in the context of Gen Z, perceived ease of use and usefulness have an important influence on acceptance and adoption of technology. The increasing recognition that the interaction of digital natives with AI highlights the need for a comprehensive theory framework. These models include the socio-cultural and emotional dimensions due to the failure of the TAM model in predicting Gen Z's behaviour in this scenario (Bag et al.,2022; Al-Sharafi et al., 2023). The extended Technology Acceptance Model (ETAM) gives a broader understanding of digital natives' adoption of technology by including factors like perceived trust and social influence. This model describes the determinants affecting their use of these tools (Arachchi et al., 2023; Rosli et al., 2023). The decision to adopt technology by digital natives exceeds utilitarian gain. Emotional engagement, social influence and identity expression are equally important drivers that are often missed and overlooked by traditional models.

"Digital Nativity Theory" is one of the theories which explains how Gen Z interact with AI tools differently (Jarrahi & Eshraghi, 2019). Those who grew up with the advanced system, like AI are likely to develop a different pattern of thinking, behaviour and digital engagement compared to those who adopt this AI tool a bit later in their life. Those who adopt the technology late are technically known as "digital immigrants" (Alruthaya et al., 2021). The interaction of digital natives with AI is more natural and obvious where they find such tools flexible and collaborative, something they can work together on, instead of relying solely on. Still, they are fully aware of how to use AI and make their life easier, at the same time, they make sure that they don't overshadow human interaction.

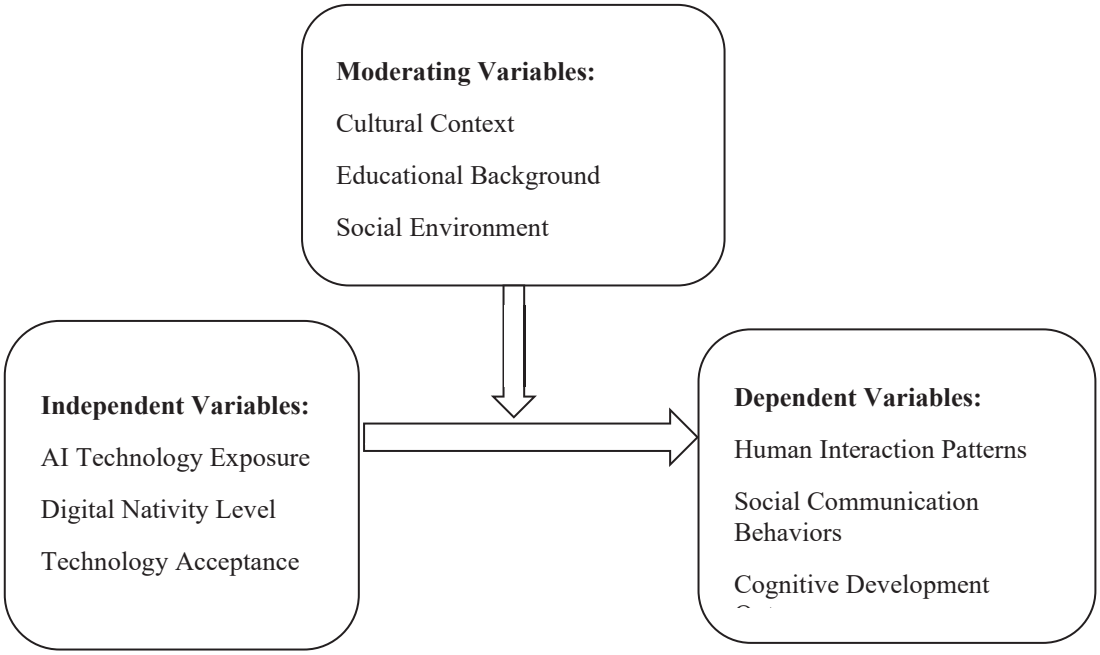
According to (Lyngdoh et al., 2023; Arkhipova & Janssen, 2024), Social Comparison Theory says how digital natives use AI-mediated social environments, especially on social media platforms where AI algorithms completely shape how people interact and present themselves and seek social validation. This model predicts that Gen Z are mostly exposed to others' algorithms, achievements, and success, which leads or can lead to social pressure, confusion regarding their own identity and develop anxiety. The contents that have been designed and created by AI are more engaging content, and this can develop a feeling of social comparison, making them more noticeable. (Lindgren, 2024; Raees et al., 2024) says that the "Human-AI Integration Theory" has recently been used in order to examine how digital natives interact with AI systems. This model assumes that digital natives like to build collaborative interaction with AI instead of taking it as a replacement or substitute for humankind. In this scenario, AI and human strengths align together, leading to a constructive collaboration result of uplifted cognitive as well as social abilities (Hromada, 2024; Przegalińska, 2022). Highlighting this collaborative nature of human-AI interaction, this framework highlights how such algorithms can be designed to strengthen the social skills of Gen Z rather than replacing them.

Digital natives interacting with AI requires a detailed approach for understanding the social and cultural environment among them. Activity Theory provides a valuable model for understanding the way these technologies not just affect individual actions but also broaden the social and cultural structures (Lindgren, 2024; Mândraș, 2024). This approach highlights how Gen Z interacts with socio-cultural, educational forces that influence it, along with the social norms around it. Those AI tools that have been used in educational and workplace settings have built enhanced digital competence as well as promoted critical thinking through the implementation of the activity-theoretical framework.

Milutinović (2022), Bag et al. (2022) explained the TAM (Technology Acceptance Model), which provides valuable information regarding the procedure through which users accept and incorporate novel technology and is the key theory where the idea is constructed. From cross cultural studies of Arkhipova & Janssen (2024) and Al-Sharafi et al. (2023), variables like Cultural Context, Educational Background, and social environment are derived. Also, the independent variables, like Exposure to AI Technology and Digital Native, are based on Digital Nativity Theory, which was first introduced by Dingli & Seychell (2015) and further followed by Lanfranchi et al. The dependent variables are taken from real-life outcomes uncovered in Roblek et al. (2019) on human interaction behaviours, Savin et al. (2024) on cognitive behaviours, and Billano et al. (2021) and Lyngdoh et al. (2023) on social communication behaviour. The model perceives how different context conditions, as many studies confirm, can impact outcomes. It harmonizes these diverse theoretical approaches into a single universal model to be viewed as facilitating the complex interlink between Generation Z's consciousness of AI and their effect on their interactions with people.

Figure 1

Purposed Conceptual Framework



These dependent variables come from real outcomes revealed in Roblek et al. (2019) on human behavior of interaction, Savin et al. (2024) on cognition behavior, and Billano et al. (2021) and Lyngdoh et al. (2023) on social communication behavior. The model considers how other varied factors of context, as numerous studies attest, may influence outcomes. It integrates all these oppositional theoretical models into a global model that allows the complex interaction between Generation Z's exposure to AI and its impact on interactions with other human beings.

Discussion

AI is a tremendous shift in how people are adopting technology when it relates to the usage by Generation Z. It's about reshaping social aspects, communication habits, and how digital natives develop cognitively rather than simply taking up new tools. These changes are more profound than surface-level in adoption and influence their entire relationship with digital innovation. The more than 60 peer-reviewed studies indicate that, as robust as Gen Z is and the advanced methods by which they plan to integrate AI into their life, there are certain serious issues. Social isolation, intellectual reliance on technology, and issues with sustaining true human relationships plague digital natives (Savin et al., 2024; Vinichenko et al., 2021; Arkhipova & Janssen, 2024).

According to (Roblek et al., 2019; Lyngdoh et al., 2023; Ho et al., 2022) research, digital natives' inclination towards AI technologies is evolving automatically but also has some weaknesses. Digital natives are obtaining new skills of collaboration with AI, however, lose essential skills like critical thinking and face more challenges in personal level of communication when it comes to face-to-face communication. Arkhipova and Janssen (2024) and Al-Sharafi et al. (2023) stated that Generation Z may be even more vulnerable to manipulation by AI tools and algorithms and indicated that Generation Z communication with AI across cultures exhibits comparable patterns. This means that technological influences probably have a greater impact on what shapes their digital behaviours than educational or cultural backgrounds.

An examination of the conceptual framework demonstrated that traditional models of tech adoption do not capture the complex relationship between AI and Generation Z perfectly. Therefore, it is essential to create sophisticated theoretical frameworks that not only focus on practical issues but also on emotional, social, and identity-related ones (Bag et al., 2022; Lanfranchi et al., 2024; Lindgren, 2024). The development of Digital Nativity and Human-AI Symbiosis Theory is our breakthrough in comprehending the generation with AI. Such models highlight the distinct way on how Generation Z

builds and interacts cognitively and socially with AI technologies, marking a collaboration based on cooperation instead of dependence, as claimed by (Nielsen, 2023).

To understand the impact of Generation Z's continuous exposure to AI and algorithms on their cognitive growth, relationship dynamics, and social maturity, further research must be conducted (Chardonnens, 2025; Piepiora, 2024). Cross-cultural comparisons are essential to better understand the ways individuals interact with AI in different social, economic, and educational environments. Intervention research must also clarify strategies for integrating AI to better work to build and augment human social capabilities and not undermine them (Joshi, 2025; Hromada, 2024). The impact of these shifts on teachers, policymakers, and even the creators of new educational tools is important. It calls for a thoughtful approach, one that doesn't just chase after the latest AI capabilities but also makes sure we're using these tools in ways that truly enhance communication and learning experiences. At the same time, we mustn't lose sight of developing and preserving essential skills like critical thinking and genuine human interaction. This is a tricky balance to find, but one that is worth it if we are going to reform education in a manner that enriches the students and the teachers.

As researchers like (Chardonnens, 2025; Mândraș, 2024) highlight, this sensitivity can allow us to design systems that take advantage of what AI can do without undermining the human element in which learning is situated. Creating programs of digital literacy promotion, guiding responsible AI design, and shaping healthy human-AI relationships by way of proper educational practices will be the most important thing. These actions can guarantee that Generation Z's interaction with technology is good for people and also for society, so that no dependence or social exclusion is established (Savin et al., 2024; Toma & Hudea, 2024).

Conclusion

The way Generation Z discourses about AI says a lot about how much our social development is intertwined with technological change. Gen Z, being the first to have been brought up with digital technology from early childhood, incorporates AI into their social existence, relationships, and identity. This transformation offers immense possibilities for growth and global connectivity, and new challenges to be met with empathy. This study examines how AI influences Gen Z's intellectual and social development through the comparison of over 60 peer-reviewed articles. It captures key trends, issues, and directions for future research. Easy adapting to AI-driven communication among Gen Z is likely the most powerful insight. They are comfortable conversing with AI bots, navigating recommendation algorithms, and engaging with AI-driven social media, showing just how intuitive this technology has also grown for them. Generation Z sees AI as a partner to a greater extent than as a tool, and is leveraging its powers to increase productivity, control emotions, and offer a novel experience.

Accepting this much from AI comes with some valid concerns regarding how it might influence our cognitive powers, negate immediate human interaction, and even introduce loneliness. Studies indicate that while AI can be used as a means of coping with daily tasks and emotions, it is not without its own set of drawbacks. It decelerates our critical thinking, reduces empathy, and even provides more complicated human-to-human interactions through increased social anxiety. The increased acclimation to "AI nativity," wherein Gen Z is comfortably native to working with AI tools, conversing with them expertly, and incorporating AI-created content unproblematically into their expression seamlessly, is an essential achievement to realise. It embodies a fundamental shift in how digital natives are using technology, extending to cultures and education. For maintaining a genuine human touch and agency, it is imperative to address issues such as algorithmic anxiety, privacy concerns, and the risk of losing authenticity. These encompass contemplative AI development and stringent digital literacy policies.

To ensure simplicity of a holistic and comprehensive understanding of how Generation Z coexists with AI, the proposed framework brings together various prevailing theoretical positions like the Human-AI Integration Theory, Digital Nativity Theory, and the Technology Acceptance Model (TAM). For technological innovation to serve, rather than counteract, intellectual and social progress, this model emphasises balancing the best use of AI without debasing essential human abilities. Further research into the impact of constant exposure to AI on Generation Z's long-term decision-making ability, social skills, and emotional intelligence must be conducted. Moderate use of AI is a function of the efforts of legislators, teachers, and software engineers. Together, they can design spaces where AI augments and supports human interaction and enhances its value rather than replaces it. Addressing these challenges

head-on makes it possible for us to leverage the advantages of AI while making a real human connection an integral part of our existence.

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