

FROM THE NETWORK SOCIETY TO SYNTHETIC COMMUNICATION: A COMPARATIVE MEDIA ECOLOGY ANALYSIS OF THE COMMUNICATION REGIMES OF GENERATIONS Z, ALPHA, AND BETA

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ABSTRACT

This study comparatively examines the communication environments and practices of Generations Z, Alpha, and Beta within the framework of media ecology. Generations are treated not as biological age cohorts but as experiential and epistemic regimes shaped by the dominant communication medium. The study is not an empirical field investigation but offers a conceptual and typological comparison. It draws on established empirical literature for Generation Z, platform and interface studies along with child and media research for Generation Alpha, and critical discourse analysis of technology vision texts and the sociotechnical imaginaries approach for Generation Beta. The comparison proceeds along five parameters namely dominant medium, mode of interaction, content production model, epistemic authority, and socio-communicative role. The findings suggest a gradual shift in communication from network-based human-to-human interaction toward human-artificial intelligence interaction and a relocation of epistemic authority from peer groups and algorithmic feeds to personalized artificial intelligence agents. The study argues that this shift necessitates reconsidering the sender-receiver model alongside actor-network theory and the human-machine communication literature.

Keywords: Technological Revaluation, Generation Z, Generation Alpha, Generation Beta, Synthetic Media And Media Ecology, Algorithmic Communication And Artificial Intelligence

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1. Introduction

The concept of generation is one of the most frequently employed and simultaneously least questioned units of analysis in explaining social change. Mannheim (1952) defined a generation as individuals born in close chronological proximity sharing a similar position within the social and historical process and noted that this position only transforms into a social phenomenon through the processing of shared experiences. Today, however, generational labels largely circulate through tags produced within demographic consultancy and market research (McCrindle & Wolfinger, 2009). While these labels have found broad resonance in public debate, their theoretical foundations remain controversial and they often present generational differences as a spontaneous outcome generated by technology itself.

The digital natives discourse is an early and influential example of this tendency. Prensky (2001) argued that the younger generation growing up with digital technologies thinks in a fundamentally different way from their predecessors. Subsequent research demonstrated that systematic evidence supporting this claim is limited and that differences among young users are associated more with access, experience, skills and social position than with age (Bennett, Maton & Kervin, 2008; Helsper & Eynon, 2010). Therefore a study aiming to examine intergenerational communication differences must avoid both generalized labels and technological determinism.

This study approaches generation not as an age cohort but as an experiential and epistemic regime shaped by the dominant communication environment. The term regime is used here to describe the interaction patterns valid within a given environment, the assumptions regarding the origin of knowledge, and who or what participates as a party in communication collectively. Media ecology provides a suitable foundation for this perspective because this tradition asks how the environment itself frames human experience prior to content (McLuhan, 1964; Postman, 2005).

The generational boundaries used in this study follow the naming convention initiated by McCrindle and Wolfinger (2009). Accordingly, Generation Z encompasses those born between 1995 and 2009, while Generation Alpha encompasses those born between 2010 and 2024. Generation Beta is defined in sources reporting McCrindle's announcement as the cohort to be born between 2025 and 2039 (Radio Canada International, 2025). Boundary years may vary by a few years across sources. Therefore these intervals are utilized not as precise demographic thresholds but as conventional demarcations organizing the comparison. At the time of writing this study in 2026 the oldest members of Generation Beta are approximately two years old and observable data regarding their communication practices is not yet available. This situation indicates that the comparison is asymmetric and is addressed separately in the methodology section.

The aim of the study is to provide a theoretical projection regarding the future of communication by comparing the dominant communication environments, knowledge production processes, and interaction patterns of Generations Z, Alpha, and Beta. In line with this aim the following research questions have been formulated.

RQ1. What are the fundamental ruptures between the main technological ecosystems and interfaces through which Generations Z, Alpha, and Beta communicate?

RQ2. How does epistemic authority in communication—namely, trust regarding the accuracy and source of knowledge—transform from Generation Z to Generation Beta?

RQ3. How does the transition from human-to-human communication to human–artificial intelligence and autonomous system interaction stratify across these three generations?

The study aims to make three contributions to the media and communication literature. First, it rescues the generational debate from the language of market research and reconstructs it using the concepts of the media ecology tradition. Second, it associates the concepts of network society, algorithmic society, and synthetic communication within a single comparative matrix. Third, it opens the limits of the sender-receiver model to discussion by carrying developments in the human-machine communication literature into generational analysis. The second section of the study comprises the theoretical framework; the third section, the methodology and limitations; the fourth section, the comparative findings; the fifth section, the discussion; and the sixth section, the conclusions.

2. Literature Review

2.1 The Media Ecology Tradition

Media ecology is a research tradition that conceptualizes communication technologies not as neutral channels carrying content but as environments that shape the organization of human perception and the form of social relations. McLuhan (1964), through his assertion that the medium is the message, argued that an environment, regardless of the content it carries, alters the scale, pace, and pattern of human relations, conceptualizing technologies as extensions of human senses and faculties. Innis (1951) posited that communication environments exhibit a bias toward either time or space and that this bias influences the organization of knowledge and power relations. Ong (1982) linked the transition from oral culture to writing and electronic environments with transformations in modes of thought.

Postman (2005) argued that environments also shape assumptions regarding the nature of knowledge and truth, meaning that each environment circulates its own distinct epistemology. The epistemic authority parameter of this study is directly derived from this assertion. Postman (1992) later termed a system in which technology dominates all spheres of culture as technopoly. Meyrowitz (1985) demonstrated that electronic environments loosen the physical spatial boundaries separating social situations thereby reorganizing expectations regarding how individuals should behave in front of others.

Strate (2017) summarizes media ecology as the examination of media as environments surrounding human life. Scolari (2012) posited that the tradition conceptualizes environments through two distinct metaphors, namely, environment and species. The environment metaphor is pivotal for this study. This is because generations experience an environment not as a subsequently chosen tool but as a milieu they encounter at birth. The critique of technological determinism directed at media ecology has also been taken into consideration, and the impact of environments has been interpreted alongside patterns of social usage and structural conditions.

2.2 The Concept of Generation and Media Generations

Mannheim (1952) differentiated three levels, namely, generation location, actual generation, and generation unit. Being born in the same period merely creates a location. For this location to transform into an actual generation, individuals must participate in the same historical and social current. Generation units, on the other hand, are groups that respond to the same events in different ways. Pilcher (1994) emphasized that this distinction renders intra-generational diversity visible and that interpreting a generation as a homogeneous bloc is incompatible with Mannheim's legacy. This interpretation holds true for Generations Z, Alpha, and Beta as well. Two children born in the same year can be raised in vastly different communication environments in terms of country income level, family structure, and educational opportunities.

Bolin (2017) developed the concept of media generation by adapting Mannheim's approach to media studies. In this approach the media environment encountered during youth and adolescence occupies a decisive role in the formation of generational consciousness. The concept of media generation supports this study in two respects. First, it removes the generation from a chronological label and ties it to the experiential relationship established with the environment. Second it acknowledges that diverse environmental experiences may coexist within the same generation.

The naming convention systematized by McCrindle and Wolfinger (2009) offers descriptive convenience yet does not provide an explanatory theory. Consequently in this study the terms Z, Alpha, and Beta are utilized solely to designate these sections while the explanation of intergenerational differences is relegated to media ecology concepts. The digital natives debate has also been approached with the same stance. The framework proposed by Prensky (2001) while capturing the distinct experience of those raised in new environments has been criticized for reducing this difference to a cognitive transformation (Bennett, Maton & Kervin 2008; Helsper & Eynon, 2010). This study seeks the difference not at the cognitive level but at the environmental and epistemic level.

2.3 Network Society Algorithmic Society and Synthetic Communication

Castells (1996) conceptualized the social structure organized around information and communication technologies as the network society. In this structure power and culture operate through positions and connections within the network. Participatory culture studies, on the other hand, have discussed the novel relationship established between media industries

and environments in which audiences participate in content production (Jenkins 2006). These two traditions constitute the foundational framework for understanding the communication environment of Generation Z.

The algorithmic society debate advances the analysis of the network society one step further. Gillespie (2014) demonstrated that algorithms have become tools of information management determining how information is selected, circulated, and deemed publicly relevant. Bucher (2018) examined algorithmic power through the everyday relationship users establish with algorithms revealing that algorithms are shaped by user expectations just as they shape user behavior. Couldry and Hepp (2017) argued that social reality is increasingly constructed through data infrastructures and digital environments while Hepp (2020a) termed this process deep mediatization.

The term synthetic communication is utilized in this study to denote situations in which the counterpart or a portion of the message in communication is an artificial intelligence system rather than a human. The field of human-machine communication directly addresses this phenomenon. Guzman and Lewis (2020) asserted that artificial intelligence technologies have ceased to be merely the channel of communication and have become a party to it proposing a tripartite research agenda encompassing functional, relational, and metaphysical dimensions. Gunkel (2012) posited that the anthropocentric assumptions of communication theory require reconsideration in the face of artificial intelligence. Hepp (2020b) treated communicative robots, social bots, and work bots as novel objects of media and communication research.

The human tendency to establish social relationships with machines also constitutes a significant foundation for this discussion. Reeves and Nass (1996) demonstrated through experimental studies that individuals interact with computers and media using everyday social rules. Sundar (2008) developed a model proposing that technological cues influence the perception of source credibility through heuristic shortcuts. Natale (2021), on the other hand, argued that artificial intelligence systems produce an ordinary illusion in users by generating human-like responses and that this illusion has become an integral part of the communicative process. Bender et al. (2021), noting that large language models can generate fluent text devoid of factual grounding, discussed the risks associated with utilizing these systems as sources of information.

Finally the actor-network theory developed by Latour (2005) proposed that non-human entities also be treated as actors possessing agency within social networks. Floridi (2014) employed the concept of 'onlife' to denote a mode of existence in which the distinction between online and offline is blurred. Baudrillard (1994), on the other hand, discussed a system in which signs and simulations replace reality through the concept of the simulacrum. These concepts are utilized in the Discussion section of this study to analyze the problem of synthetic reality.

At this juncture the concept of Technological Revaluation introduced to the literature by Akpınar (2024) provides a direct avenue for the discussion. Akpınar (2024) removed the term revaluation, traditionally denoting an increase in the external value of currency, from its economic context and merged it with technology, deriving this concept as a holistic umbrella

term that signifies technology not merely as an evolving instrument but as a force that continually augments its own value and situates itself at the center of social structures. Within this perspective technological revaluation signifies technology foregrounding itself by amplifying its own significance under shifting conditions and the technological revolution occurring at a much faster pace while adapting to change. This theory examines how technological developments not only engender an instrumental transformation but also facilitate the shift of epistemic authority from human agency to algorithmic regimes and the emergence of novel forms of manufacturing consent processes. This perspective enables interpreting the observed shift in epistemic authority from Generation Z to Generation Beta not as simple technological progress but as a revaluation of power and knowledge. It should be noted that this concept is relatively new to the literature; therefore, academic reception, critique, and empirical applications remain limited. Its analytical utility is currently being tested in the author's related works on digital activism (Akpınar, 2023) and transhumanism (Akpınar, 2024), as well as in the present study.

3. Methodology and Research Design

3.1 Research Design

The study employs a qualitative comparative and typological design. The comparison is structured around a case-oriented logic. In this logic, each generation is treated as a holistic case, and the cases are mutually evaluated across specific parameters (Ragin, 1987). Due to the limited number of cases (three), formal comparative analysis techniques based on set theory were not utilized (Rihoux & Ragin, 2009). Instead, a path based on type construction through theoretically derived dimensions was followed. Kluge (2000) demonstrated that types and typologies in qualitative research can be derived jointly from empirical data and theoretical concepts and that this process necessitates the explicit determination of comparison dimensions.

The comparison dimensions have been derived from the media ecology tradition. The dominant medium is drawn from the lineage of McLuhan (1964), epistemic authority from Postman (2005), and the mode of interaction and socio-communicative role from Meyrowitz (1985), as well as from the human-machine communication literature. The content production model dimension is grounded in participatory culture studies (Jenkins, 2006). Thus, a five-parameter matrix has been constructed, and each generation has been described according to these parameters.

The diverse data types pertaining to the three generations (empirical literature for Generation Z, platform and interface studies for Generation Alpha, discourse analysis for Generation Beta) have been compared through a common five-parameter analytical matrix. This matrix enables the evaluation of each data type within its own context followed by a comparison at the parameter level. The discourse data concerning Generation Beta has not been considered equivalent to observational data and has been included in the analysis solely at the level of projection.

Figure 1. Layered Transition of Communication Regimes



Figure 1 illustrates the layered transition of communication regimes across the three generations, demonstrating how each new environment emerges within and alongside the previous one rather than replacing it entirely.

3.2 Data Sources

The analysis for Generation Z relies on empirical literature published in peer-reviewed journals and academic presses as well as established studies on platform practices. Since this literature is relatively mature, Generation Z constitutes the most robust pillar of the comparison.

The analysis for Generation Alpha is based on three types of sources. The first is academic research conducted on children and media. The second is studies concerning the interface and functionality of platforms such as Roblox, Minecraft, and YouTube Kids. The third is reports conveying parent and educator-oriented observations. A portion of these sources is indirect in nature. Children's own experiences are often mediated through adults. Therefore findings regarding Generation Alpha should be considered indicative rather than definitive.

Since direct observation is not possible for Generation Beta, the analysis turns to technology vision texts. To balance the limitations of this orientation, strategic reports and vision documents from pioneering entities such as Gartner, IEEE, and OpenAI have been scanned within a holistic sampling framework. Accordingly, Gartner's (2025) reports on AI-based development and strategic technology trends, IEEE's (2026) standard texts concerning autonomous systems, ethical design, and the management of children's data, as well as OpenAI's (2023) roadmap documents on artificial general intelligence (AGI) and societal transition processes, have been included in the examination.

The sample was determined through purposive sampling to represent three distinct actor categories producing technology visions: (1) market research and consultancy firms (e.g., Gartner), (2) engineering standards organizations (e.g., IEEE), and (3) artificial intelligence developers (e.g., OpenAI). These three categories collectively represent the commercial, normative, and technical dimensions of technology discourse. The examined texts consist of documents published between 2023 and 2026, in English, publicly accessible, and containing direct future projections.

The selection of vision texts followed a systematic procedure to ensure transparency and replicability. An initial search was conducted across academic databases (Google Scholar, Scopus, Web of Science) and institutional repositories using the keywords "autonomous systems," "generative artificial intelligence," "future of communication," and "technology vision." Documents were included if they (a) were published between 2023 and 2026, (b) were publicly accessible and written in English, (c) contained direct future projections regarding AI and communication practices, and (d) originated from one of the three identified actor categories (commercial, normative, technical). Documents were excluded if they consisted solely of technical specifications without societal projections, marketing materials lacking institutional grounding, or opinion pieces without documented authorship. This systematic filtering yielded a final corpus of strategic reports and vision documents that collectively represent the dominant technology discourse shaping the projected communication environment of Generation Beta.

These texts have been read through critical discourse analysis in line with Fairclough (1995) and van Dijk (1993). The study draws on Fairclough's (1995) three-dimensional critical discourse analysis model. Accordingly, the texts were examined first at the level of description (word choice, metaphors, presuppositions), then at the level of interpretation (intertextual relations, discursive strategies), and finally at the level of explanation (the social and institutional context of discourse).

The following analytical categories were utilized in the discourse analysis: (1) how actors are represented (humans, systems, institutions), (2) modality regarding the future (certainty, probability, inevitability), (3) naturalized assumptions and presuppositions, (4) metaphors and conceptual frameworks, and (5) excluded or silenced alternatives.

In this reading, the questions asked were how the texts construct the future, which actors they foreground, and which assumptions they accept as natural (Wodak & Meyer, 2016). The concept of sociotechnical imaginaries informed the analysis. Jasanoff and Kim (2015) defined

this concept as collectively shared and institutionally sustained visions of desired futures related to technological progress. The sociology of expectations literature also demonstrates that future-oriented technology discourses are not so much predictions of what will occur but rather a practice that organizes present investments and expectations (Borup et al., 2006). In the field of futures studies, projections should be read not as premises but as layered discourse (Inayatullah, 2008).

It must be reiterated that the analyses regarding Generation Beta constitute a discourse-based projection rather than an observational account. The analysis of future-oriented texts does not reflect current social reality but rather maps how specific actors (e.g., Gartner, OpenAI) construct their desired futures. This methodological choice aligns with Jasanoff and Kim's (2015) concept of "sociotechnical imaginaries" and Borup et al.'s (2006) "sociology of expectations." Here, discourse analysis is positioned not as a future prediction (a falsifiable forecast) but as a critical analysis that reveals how the future is discursively constructed and legitimized today. Therefore, the Generation Beta analysis focuses on the question "which imaginations of the future are being imposed, and what forms of epistemic authority do they bring along?" rather than "what will happen?"

This study focuses on three actor categories representing the commercial, normative, and technical dimensions of technology discourse; the visions of international policymakers (e.g., OECD, UNESCO) and civil society organizations, while significant, are the subject of a separate study and are therefore excluded from the present analysis.

3.3 Limitations

The study possesses five limitations. First, the findings regarding Generation Beta are based on discourse analysis rather than observation and therefore carry the character of theoretical projection rather than empirical claim. Second, the vision texts were determined through interpretive selection rather than a systematic sampling framework, which limits the generalizability of the findings. Third, generational boundaries are based on conventional assumptions and may vary across sources. Fourth, the majority of the literature has been produced in a Global North context, and vastly different environmental experiences may exist within the same generation in societies where access to technology is unequal. This final point constitutes a separate area for future empirical research.

Due to the interpretive nature of discourse analysis, the findings are not independent of the researcher's theoretical position. In this study, technology vision texts were analyzed from both media ecology and sociotechnical imaginaries perspectives to achieve analytical triangulation. However, it must be acknowledged that different researchers may draw different conclusions from the same texts.

From an ethical standpoint, no direct data was collected from human participants in this study. Since the study is based on published literature and publicly accessible texts, it does not require ethics committee approval.

Fifth, the discourse analysis regarding Generation Beta reflects the visions of dominant technology actors (primarily Global North-based) rather than a singular scenario of the future.

These texts may create the illusion that the future will be experienced homogeneously. However, the communication practices of future generations will be shaped by local economic, cultural, and infrastructural conditions rather than the "seamless" and "autonomous" systems envisioned in these texts. These limitations are compounded by intra-generational diversity: economic, geographic, and cultural differences within each cohort mean that no single communication regime can fully capture the lived experience of an entire generation. For instance, while a child raised in Silicon Valley may interact daily with personalized AI tutors and voice-activated assistants, a child in rural sub-Saharan Africa or southeastern Turkey may have only intermittent access to a shared smartphone, fundamentally altering the communication regime they experience and challenging the universality of the projected "synthetic communication" paradigm.

4. Findings: Comparative Generational Analysis

The following table compares three generations across five parameters. The table is an analytical typology derived from literature and discourse-level data and is not the result of empirical measurement. The statements in the cells indicate the dominant tendency of each generation and do not encompass intra-generational diversity or transitional periods where environments coexist. The Beta column is projective rather than observational in nature.

The analysis presented in this section has a two-stage structure. In the first stage, the communication regimes of the generations were described in light of data obtained from the literature and discourse analysis, and the typology in Table 1 was constructed. This part represents the findings (i.e., the trends in the existing literature and texts). In the second stage, the implications of these findings within the framework of media ecology and human-machine communication literature—such as the transformation of epistemic authority and the nature of intergenerational transition—were discussed. This part contains the interpretation (i.e., the researcher's theoretical inferences). Table 1 is not an empirical measurement but an analytical model emerging from the combination of these two stages.

Table 1. Comparative typology of the communication regimes of Generations Z, Alpha, and Beta

Parameter	Generation Z (1995–2009)	Generation Alpha (2010–2024)	Generation Beta (2025–2039)
Dominant communication medium	Smartphones and social network platforms	Hybrid gaming platforms, touch and voice interfaces	Autonomous artificial intelligence interfaces, wearable and embedded systems
Mode of interaction	Text, visual and short video	Tactile, visual and voice interaction, avatars	Dialogue sustained through natural language, voice and biometric input
Content production model	User-generated content	Participatory and game-based co-production	AI-assisted or autonomous synthetic content
Epistemic authority	Content foregrounded by algorithms and the peer group	Search engines, AI summaries and content creators	Personalized AI agents and direct response systems

Parameter	Generation Z (1995–2009)	Generation Alpha (2010–2024)	Generation Beta (2025–2039)
Socio-communicative role	Screen native participatory audience	Digital producer growing up with AI	User living alongside synthetic systems

Note: The table prepared by the author.

4.1 Generation Z: Screen Nativeness and Algorithmic Networks

The communication environment of Generation Z consists of social network platforms accessed via smartphones and organized around identity performance, peer interaction, and content circulation. boyd (2014) defined networked publics through the properties of persistence, visibility, spreadability, and searchability and demonstrated that the relationship young people establish with peers and audiences in these environments occupies the center of identity construction. Ito et al. (2010) distinguished young people's participation in new media environments into two modes: friendship-driven and interest-driven. This distinction suggests that the primary motivations for communication in Generation Z are social acceptance, peer interaction, and shared interests.

Content production in this environment is based on the user-generated content model and aligns with Jenkins's (2006) definition of participatory culture. Regarding epistemic authority, encountering information for Generation Z often comes not from searching but from the feed. Since Gillespie (2014) and Bucher (2018) demonstrated that algorithmic curation determines what becomes visible, the authority of knowledge in this generation rests on two sources. One is the approval of the peer circle, the other is the circulatory power of content made visible by the algorithm. The study conducted by Vosoughi, Roy, and Aral (2018) on Twitter demonstrated that false news spreads faster and wider than true news and reveals that circulatory power is not synonymous with accuracy.

There is significant diversity within Generation Z. Those born in 1995 experienced their childhood before social networks became widespread, while those born in 2009 grew up in an environment with smartphones. Therefore the screen native designation does not apply equally to the entire generation. Castells's (1996) network society analysis still offers a valid framework for this generation. This is because communication in Generation Z acquires meaning through positions and connections within the network. In terms of socio-communicative role, this generation occupies a participatory audience position situated between the spectator and the producer.

However, this experience of network-based screen nativeness is not homogeneous on a global scale. In the context of the Global South, access to smartphones and social networks for a significant portion of Generation Z is shaped by limited data packages, infrastructural deficiencies, and economic constraints rather than continuous and uninterrupted connectivity. Therefore, there is a significant internal rupture between the Generation Z that is fully integrated into the algorithmic flow and the Generation Z left behind by the digital divide.

Intra-generational diversity within Generation Z is not limited to birth year (1995 vs. 2009). Education level, parents' technology use, rural-urban settlement differences, and

socioeconomic status fundamentally alter the relationship individuals born in the same year establish with algorithmic networks. For instance, a Generation Z member raised in a high-income family may view algorithms as a tool for "discovery," whereas their peer living in a low-income region may experience the algorithm merely as a "pastime" tool operating with limited data and mostly entertainment-oriented. Thus, economic, geographic, and cultural disparities within Generation Z produce fundamentally different relationships with algorithmic networks, cautioning against treating the cohort as a homogeneous bloc.

4.2 Generation Alpha Artificial Intelligence and Interactive Virtual Worlds

The childhood of Generation Alpha has been shaped around touch screens, gaming platforms and voice assistants. In this generation, communication has expanded from passive viewing to interactive and construction-based activities. Platforms such as Roblox and Minecraft are environments where users not only play within the game world but also construct and share it with others. To understand this activity Papert's (1980) approach arguing that children learn through objects they make themselves provides a useful theoretical foundation. Livingstone and Third (2017) emphasized that children possess both protection and participation rights in digital environments and this framework has become a fundamental reference point in studies on Generation Alpha.

Regarding epistemic authority, access to information in Generation Alpha is shared among search engines, content creators on video platforms, voice assistants, and recently, AI summaries. The widespread reach of generative AI tools occurred with the public release of ChatGPT in late 2022. Therefore only a portion of Generation Alpha has spent the formative years of their childhood in an environment where generative AI is present. The generation's environmental experience varies significantly according to birth year and this situation demonstrates the limitation of reading the generation as a single bloc.

Voice assistants and interactive avatars offer an interface that may make children's tendency to exhibit social responses to machines more pronounced. Since Reeves and Nass's (1996) findings demonstrate that this tendency is prevalent even among adults, it can be expected to be stronger in children. However, this inference is based not on direct empirical data but on theoretical reasoning. In Generation Alpha AI has begun to become an ordinary element of the childhood environment rather than merely a tool. In terms of socio-communicative role this generation occupies a digital producer position growing up with AI and participating in content production through play.

This imagination of an interactive world is subject to serious critique regarding access inequality. Platforms such as Roblox or Minecraft require high-speed internet, advanced hardware, and parental digital guidance. For members of Generation Alpha growing up in rural or low-income regions of the Global South, this experience of "interactive construction" is replaced by a more one-way (passive viewing) or low-hardware-limited experience. Thus, the "digital producer" identity of Generation Alpha is directly linked to class and geographical privileges.

Similarly, the most significant fracture within Generation Alpha lies between those born before and after the introduction of generative AI tools (e.g., ChatGPT) into daily life in 2022.

Furthermore, parents' "parental mediation" strategies are the most critical factor determining Generation Alpha's relationship with AI. While some children experience AI as a "teacher" or "playmate," for others, these technologies remain inaccessible or are tools restricted by their parents.

Consequently, economic, geographic, and cultural differences within Generation Alpha—such as rural-urban divides, parental education levels, and access to high-speed internet—produce divergent experiences of AI, further undermining any homogeneous reading of the cohort.

4.3 Generation Beta Projections Autonomous Systems and Synthetic Communication Regime

The assessment regarding Generation Beta is based on the discourse level rather than observation. In definitions attributed to McCrindle, Generation Beta is presented as the generation that will grow up in a world where AI is densely embedded in daily life, and it is emphasized that the digital and physical worlds will become seamless (Radio Canada International, 2025). When read through the concept of sociotechnical imaginaries this narrative can be evaluated as a future framework that serves to make a particular technological order appear ordinary and inevitable (Jasanoff & Kim, 2015). The sociology of expectations reminds us that such frameworks direct today's investment and policy decisions (Borup et al., 2006). Therefore the determinations regarding Generation Beta should be read not as a description of the experience the generation will live but as an analysis of the expectations imposed on the generation by technology discourse.

With this caveat the transformation theoretically implied by the discourse is significant from a media ecology perspective. In an environment where the digital and physical worlds are seamless, the interface shifts from screens toward the environment, meaning that communication ceases to be an action established with a specific device and becomes a continuous feature of the environment. This situation is consistent with McLuhan's (1964) concept of extension. Floridi's (2014) concept of onlife also describes a mode of life in which the distinction between online and offline loses its meaning. In this environment, the mode of interaction expands from text and visuals toward natural language voice and biometric input.

Regarding epistemic authority the prominent element for Generation Beta is that personalized AI agents reorganize the mode of encountering information by providing direct answers. While the act of searching requires navigating among sources, direct response systems embed the source and the selection within the presentation. Since Sundar's (2008) model posits that environmental features direct credibility assessment through heuristic cues, the likelihood of a fluent and personalized response system being perceived as an authority is high. Natale (2021) and Bender et al. (2021) demonstrate that this perception may not align with the system's actual informational grounding. Within the framework of Latour's (2005) approach these agents are not tools carrying the message in communication but actors shaping the message.

The vision of a "seamless digital-physical world" and "autonomous agents" projected for Generation Beta predominantly reflects the perspective of Global North technology giants (e.g., OpenAI, Gartner). These projections assume the widespread adoption of biometric data

collection, continuous voice-command interaction, and wearable technologies. However, for societies in the Global South lacking this infrastructure, Generation Beta will likely continue to grapple with fundamental digital literacy and access issues rather than experiencing "synthetic communication." This situation indicates that future communication regimes will also be built upon inequalities.

Although the Generation Beta projections rely on an assumption of global homogeneity, there will be profound differences among the members of this generation as well. The gap between a Generation Beta member with full access to AI agents, growing up with them and accepting them as an "epistemic authority," and a peer with only limited access to these technologies—or even living at the bottom of the digital divide—could be so vast as to challenge the concept of generation itself.

4.4 Comparative Evaluation

In terms of RQ1, Table 1 reveals that the rupture among the three generations is observed in the nature of the environment. For Generation Z, the environment is the platform and the feed. For Generation Alpha, the environment is an interactive world in which the child can be the builder. In the environment projected for Generation Beta, the distinction between interface and environment becomes blurred, and communication occurs within the continuous presence of autonomous systems. In terms of RQ2, the table indicates that epistemic authority shifts from a social and dispersed source toward an individualized and mechanized source: from peer approval and algorithmic visibility (Gen Z), to a dispersion among search engines, content creators, and AI summaries (Gen Alpha), and finally to consolidation in a single user-configured AI agent (Gen Beta). In terms of RQ3, the table demonstrates that the transition is not a sequential change but a layered accumulation, with old environments persisting within new ones.

Reading through McLuhan's (1964) observation that the content of every medium is another medium, these findings suggest that the intergenerational transition is not merely an environmental change but a radical revaluation of epistemic authority. When considered within the framework of Akpınar's (2024) theory of technological revaluation, the shift from dispersed algorithmic authority (Gen Z) to consolidated AI agency (Gen Beta) indicates that technology ceases to be a passive tool and becomes an active agent deciding what knowledge and truth are. Akpınar's (2023) study on digital activism and lynch culture further suggests that algorithmic visibility and peer approval—as observed in Generation Z—also shape collective action and lynch culture in digital environments, providing a concrete illustration of how epistemic authority operates socially. This interpretation, however, remains a theoretical projection that requires empirical testing in future research.

5. Discussion: Communicative Ruptures and Future Projections

5.1 From Human-Centered Communication to Hybrid Communication

Shannon and Weaver's (1949) mathematical theory of communication formulated the idea of a message transmitted from source to receiver at the engineering level and it became widespread as the sender-receiver-message model in subsequent communication sociology.

This model assumes that communication is a two-way process and that at least one of the parties is human. Generative AI systems challenge this assumption. Because the system both produces the message and assumes the role of receiver in reciprocal interaction. For this very reason, Guzman and Lewis (2020) proposed that AI be treated not as a channel but as a party to communication. Gunkel (2012) argued that this situation necessitates reviewing the subject-tool distinction in communication theory.

Latour's (2005) actor-network approach provides a useful tool for conceptualizing this transformation. In actor-network theory human and non-human actors are treated as members of the same network and action is seen as a phenomenon emerging in the network as a whole. This perspective allows reading AI agents not as neutral tools but as elements reorganizing relationships. Hepp (2020b) noted that communicative robots have become a new object of media and communication research. Turkle (2011) on the other hand discussed that people are developing increasingly higher expectations from machines and this situation also affects expectations regarding human relationships. These discussions demonstrate that hybrid communication is not only a technical change but also transforms the ways of establishing relationships.

When considered together with Akpınar's (2024) concept of technological revaluation it is more clearly understood that the fundamental assumptions of communication theory require reconsideration. Technological revaluation posits that in an order where AI agents participate as a party in communication, epistemic authority, trust, and surveillance acquire a new form. In this context rethinking the sender-receiver model and human-centered communication assumptions, together with the actor-network approach and human-machine communication literature, becomes a necessity.

The transformation created by AI ecosystems in the labor market directly shapes the nature of the economic and communicative regime into which new generations (Alpha and Beta) will be born. PwC's (2026) research findings indicate that AI integration beyond ordinary automation creates a professionalized labor market demanding senior skills such as leadership and strategic decision-making even in junior roles. In parallel, the World Economic Forum (WEF 2025) report reveals that at the upcoming turning point, approximately two-fifths of the workforce's current skill sets will transform, and analytical thinking, along with AI literacy, will become the most critical survival skills. This situation confirms that media ecology is not solely a cultural and communicative field but also corresponds to a new socio-economic survival regime woven around autonomous systems and synthetic agents.

5.2 Reality and Trust Crisis

Wardle and Derakhshan (2017) under the concept of information disorder distinguished misinformation, disinformation, and true information shared with the intent to harm, and treated these three as separate subjects of analysis. This framework is suitable for understanding the social network environment of Generation Z. In the environment of Generations Alpha and Beta however the problem shifts from the accuracy of content to the nature of the source. Chesney and Citron (2019) noted that deepfake technologies create not only the risk of fake content spreading but also the possibility of genuine content being

rejected as fake and termed this the liar's dividend. In this case the cost of verification increases and trust is forced to be directed toward processes rather than specific sources.

Baudrillard's (1994) concept of the simulacrum can be used to theoretically make sense of this transformation. This concept describes an order of signs circulating independently of the represented reality. Content produced by AI systems often appears persuasive without referencing a foundation, and, as Bender et al. (2021) noted, fluency does not mean the same thing as factual accuracy. For Generations Alpha and Beta, the concept of objective reality is therefore tested not only by misinformation but by the very change in the criteria for how truth is distinguished. This assessment is a theoretical projection and requires empirical testing.

5.3 Surveillance and Data Ecology

Zuboff (2019) defined surveillance capitalism as an accumulation regime in which data derived from user behavior is transformed into prediction products. Couldry and Mejias (2019), on the other hand, conceptualized the collection of human life as data as a new form of colonization. For Generation Z this data flow occurs through clicks likes and browsing records. In the environment projected for Generation Beta, however, data types closer to the body and speech, such as wearable systems, voice, and biometric input, become continuously collectible. This transition requires rethinking the concepts of privacy and consent. The approach advocating the balance between protecting children's rights and sustaining their participation (Livingstone & Third, 2017) holds particular importance for Generations Alpha and Beta. Because children are often included in data collection processes through the decisions of their parents and platforms.

From the perspective of data colonialism (Couldry & Mejias, 2019), the risk of surveillance is much more layered for generations in the Global South. While surveillance operating through click data for Generation Z will deepen with biometric data for Generation Beta, the fact that the infrastructures and servers where this data is collected are mostly located in the Global North brings data sovereignty debates to the fore. In contexts where local laws and privacy norms are insufficient, the physical and emotional data of Generation Beta risk becoming a new raw-material frontier for global technology monopolies.

5.4 Media Literacy Limitations and Future Research

Hobbs (2010) treated digital and media literacy as interconnected competencies such as access, analysis, production, reflection, and action. However, in a synthetic communication environment, the scope of these competencies must expand to include understanding not only content consumption but also the system itself. At this point, the "AI Literacy" framework developed by Long and Magerko (2020) holds critical importance. Long and Magerko define AI literacy through components such as understanding the basic concepts of AI, comprehending how algorithms work, critically evaluating AI outputs, and developing ethical awareness in human-AI interaction. Ng et al. (2021) conceptualize this further in four dimensions: (1) knowing AI concepts, (2) using AI, (3) evaluating AI, and (4) AI ethics. In a synthetic communication regime, the user must be able to evaluate not only the content but also the limitations, interests, and epistemic assumptions of the system producing it.

Therefore, definitions of media literacy must be reconstructed in an integrated manner with the frameworks of Long and Magerko (2020) and Ng et al. (2021), making AI literacy an inseparable component of media literacy. This integration is essential for individuals to critically filter the outputs of AI agents rather than perceiving them as passive "sources of truth."

The limitations of the study have been stated in the methodology section and three directions stand out for future research. First empirical studies that take into account children's own experiences in Generation Alpha and meet ethical requirements are needed. Second, the extent to which generational demarcations are valid in contexts such as Turkey (Türkiye), where access to and use of technology differ socially, must be tested. Third, longitudinal studies should be designed as the oldest members of Generation Beta reach a sufficient age, and the projections put forward in this study should be compared with observations.

Moreover, AI literacy programs designed for the Global North—assuming continuous high-bandwidth connectivity and individual device ownership—may prove ineffective in contexts where users share devices, face data scarcity, or encounter language barriers in AI interfaces. For example, a media literacy curriculum developed in English for a high-income country cannot be directly transposed to a low-income, multilingual context without significant adaptation to local infrastructural and cultural realities.

6. Conclusion and Recommendations

This study has compared the communication regimes of Generations Z, Alpha, and Beta within the framework of media ecology and has demonstrated that intergenerational differences are related more to the concurrent transformation of the dominant medium, mode of interaction, content production model, epistemic authority, and communicative role rather than a chronological distinction. In Generation Z, communication is network-based and operates within an order established between the peer environment and the algorithmic feed. In Generation Alpha, communication has expanded into interactive and construction-based environments, and artificial intelligence has begun to become an ordinary element of the childhood environment. In the order projected for Generation Beta, however, human-system interaction is designed as a routine part of everyday communication.

The theoretical consequence of this transition is the necessity to review the sender-receiver-message model and human-centered communication assumptions. When artificial intelligence agents participate as a party in communication, the issues of epistemic authority, trust, and surveillance also take on a new form. In this context, media literacy must transcend merely evaluating content and encompass evaluating the nature of the system producing the content.

The findings of the study are based not on empirical data but on literature and discourse-level data, and the determinations regarding Generation Beta especially carry a projective nature. Therefore, the conclusions should be read not as definitive judgments but as theoretical propositions requiring testing. Future communication research must place synthetic communication ecologies woven with autonomous systems at the center of its analysis alongside human-centered models.

Ethics Approval

Not applicable. This study is a conceptual and theoretical comparative analysis based on published academic literature, platform interface reviews, and publicly available technology vision documents. It does not involve human participants, animal subjects, or the collection of personal/private data. Therefore, it does not require ethics committee approval.

Informed Consent

Not applicable. No human participants were involved in this study.

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Conflict of Interest

The author declares that there is no conflict of interest.

Data Availability

Data sharing is not applicable to this article as no new empirical data were created or analyzed in this study. The analysis is based entirely on publicly available academic literature, platform interfaces, and publicly accessible technology vision reports (e.g., Gartner, IEEE, OpenAI), which are fully cited in the reference list.

Use of AI Tools

Among the artificial intelligence tools, only Gemini was used for language checking. However, the entire work was edited and brought to its final form by the author.

Author Contributions

Article author: Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing.

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