

Digital Sociology and Social Media: Digital Identity and Behavioural Impact of Social Networking on Generation Z

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Abstract

The pervasive integration of social networking platforms TikTok, WhatsApp, Instagram, X (formerly Twitter), and artificial intelligence (AI) tools into the daily lives of Generation Z (born 1997–2012) represents one of the most consequential socio-technological transformations of the twenty-first century. This study provides a sociological assessment of digital identity construction and the behavioural impacts of these platforms, anchored on Goffman's Dramaturgical Model, Bourdieu's Social Capital Theory, Foucault's Surveillance Theory, Zuboff's Surveillance Capitalism framework, and Bauman's Liquid Modernity. A cross-sectional mixed-methods design was employed, combining a structured survey of 360 Gen Z adults drawn from Nigerian universities and online panels, supplemented by in-depth qualitative interviews with 40 purposively selected participants. Quantitative findings reveal that 72.7 percent of respondents maintain differentiated self-presentations across platforms, 66.6 percent report that likes and follower counts affect their self-esteem, and 47.7 percent experience social media-related anxiety always or often. AI tools have modified online self-expression for 41.1 percent of respondents, introducing new dimensions of identity uncertainty. All four null hypotheses were rejected at $p < 0.001$, confirming significant associations between platform use intensity and mental health outcomes, digital identity fragmentation, self-esteem differentials, and AI-mediated authenticity concerns. Thematic analysis of qualitative data generated four major themes: algorithmic selfhood, performative pressure and curated identity, parasocial bonds and relational displacement, and AI-mediated identity uncertainty. The study concludes that social networking platforms are architecturally designed environments that actively shape Gen Z identities, behaviours, and psychological wellbeing through surveillance, algorithmic curation, and engagement optimisation. Recommendations encompass platform design reform, digital literacy education, mental health policy reform, and future longitudinal research.

Keywords: Digital Sociology, Digital Identity, Generation Z, TikTok, Instagram, WhatsApp, X (Twitter), Artificial Intelligence, Social Media,

Introduction

The relationship between digital technology and human social behaviour has been a central concern of sociological inquiry since the advent of the internet. Yet the scale, intimacy, and developmental significance of contemporary social networking platforms for Generation Z individuals born between 1997 and 2012 represents a qualitatively unprecedented phenomenon that demands fresh theoretical and empirical engagement. Unlike preceding generations who adopted digital technologies as adults with pre-formed identities and social competencies, Gen Z has undergone the entire arc of adolescent development within a media environment defined by algorithmic curation, datafied social relations, and the perpetual performance of selfhood for networked audiences (Boyd, 2014; Twenge, 2017). Social media platforms are not supplementary communication tools for this cohort but foundational infrastructure for identity formation, peer socialisation, romantic development, political engagement, and psychological experience.

Digital sociology, as a scholarly discipline, interrogates how digital technologies restructure social institutions, collective identities, inequalities, and interactions. It is not merely the sociology of internet use but a broader endeavour to rethink core sociological categories identity, capital, community, power, labour in light of the digital transformation of social life (Lupton, 2015). Central to contemporary digital sociology is the critical question of how platform architectures shape the subjectivities, relationships, and life chances of their users. For Generation Z, this question is inseparable from the business model of surveillance capitalism that structures platform design and from the algorithmic systems that distribute visibility, reward, and exclusion across billions of daily interactions.

Each platform inhabiting Gen Z's social world carries distinctive affordances. TikTok's algorithmically curated short-form video feed has transformed content discovery and enabled micro-community formation around niche identities, while simultaneously exposing users to amplified body image content and algorithmic drift toward extremity. Instagram's visual economy of aesthetic perfection and follower metrics has restructured aspiration and social comparison. WhatsApp's closed group architecture supports intimate peer networks but also facilitates rapid misinformation spread within trusted circles. X (formerly Twitter) creates conditions for public discourse, political identity formation, and outrage dynamics that reward emotional reactivity. AI tools including generative text and image systems such as ChatGPT and Midjourney introduce unprecedented questions about authorship, authenticity, and the human boundaries of self-expression (Gillespie, 2014; Zuboff, 2019).

In Nigeria and across sub-Saharan Africa, Gen Z constitutes the fastest-growing demographic group engaging with social media. Expanding smartphone penetration and affordable mobile data have dramatically widened digital participation, making platforms a primary site of identity work, socialisation, political expression, and economic activity for millions of young Nigerians. Yet sociological research on digital identity and social media impacts in African contexts remains systematically underrepresented in international scholarship, creating an urgent need for empirically grounded inquiry that speaks simultaneously to global theoretical debates and to local contextual realities (Ndlovu-Gatsheni, 2018). This study responds to that need by providing a comprehensive sociological assessment of digital identity construction and the behavioural impacts of social networking on Generation Z.

1.2 Statement of the Research Problem

Despite the ubiquity of social media in Gen Z's lives, significant gaps persist in the sociological understanding of its identity and behavioural consequences. First, the mechanisms through which specific platform affordances shape digital identity including algorithmic curation, quantified social feedback, and visual economy have not been adequately theorised within an integrated sociological framework. Second, behavioural consequences including social comparison, anxiety, political radicalisation, relational displacement, and performative self-presentation have been examined predominantly within psychological paradigms that neglect the structural and commercial conditions of platform capitalism. Third, the sociological implications of AI tools for Gen Z identity and authenticity constitute an emerging and largely underexplored domain. Fourth, empirical research on Gen Z social media behaviour in African and specifically Nigerian contexts remains limited relative to the scale of the phenomenon. Fifth, most existing studies are platform-specific and monocausal, failing to examine the cumulative cross-platform dynamics of digital identity formation. This study addresses these gaps through a theoretically grounded, multi-platform, mixed-methods investigation.

1.3 Aim and Objectives of the Study

The main aim of this study is to conduct a sociological assessment of digital identity construction and the behavioural impacts of social networking platforms on Generation Z.

The specific objectives are as follows:

- i. To examine the theoretical frameworks relevant to understanding digital identity and social media impacts on Generation Z.
- ii. To assess the relationship between social media platform use and digital identity construction among Gen Z users.
- iii. To investigate the behavioural impacts of TikTok, WhatsApp, Instagram, X, and AI tools on Gen Z mental health, self-esteem, social relationships, and political behaviour.
- iv. To explore qualitatively the lived experiences of Gen Z individuals regarding digital identity, social comparison, and behavioural change associated with social media use.
- v. To develop evidence-based recommendations for platform design reform, digital literacy education, and mental health policy addressing Gen Z social media impacts.

1.4 Research Questions

This study seeks to answer the following research questions:

- i. What theoretical frameworks best explain digital identity formation and social media impacts on Generation Z?
- ii. How do social media platforms shape digital identity construction among Gen Z users?
- iii. What are the key behavioural impacts of TikTok, WhatsApp, Instagram, X, and AI tools on Generation Z?
- iv. How do Gen Z individuals experience and interpret the relationship between social media use, identity, wellbeing, and behaviour?
- v. What policy and educational interventions are needed to address the sociological impacts of social media on Generation Z?

1.5 Research Hypotheses

The following null hypotheses are tested in this study:

H₀₁: There is no significant association between social media use intensity and anxiety or depression symptoms among Gen Z users.

H₀₂: There is no significant relationship between platform type and digital identity fragmentation among Gen Z users.

H₀₃: There is no significant difference in self-esteem scores between high and low social media users among Gen Z.

H₀₄: There is no significant association between AI tool use and the perceived authenticity of online identity among Gen Z users.

1.6 Scope of the Study

This study focuses on Gen Z individuals aged 18 to 32 years residing in Nigeria and in Nigerian diaspora communities, who use at least one of the five target platforms on a daily basis. Data collection was conducted through university-based convenience sampling across three Nigerian institutions representing distinct geopolitical zones, supplemented by an online diaspora panel. The platforms examined are TikTok, WhatsApp, Instagram, X (formerly Twitter), and AI-assisted content tools. The cross-sectional design limits causal inference; all documented associations are interpreted as hypothesis-generating pending longitudinal replication.

1.7 Significance of the Study

This study holds significance for multiple stakeholders. For policymakers and platform regulators, the findings provide an evidence base for digital platform governance, online safety legislation, and data protection reform in Nigeria and comparable contexts. For educational institutions, the study underscores the urgent need for structured digital literacy curricula covering algorithmic manipulation, identity performance, and social comparison psychology. For mental health professionals, the findings highlight the importance of socially informed therapeutic practice with Gen Z clients experiencing platform-related distress. For sociologists and communication scholars, the study contributes a theoretically integrated, empirically grounded account of digital identity and platform behaviour that extends the global literature into African contexts.

2. LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Digital Identity

Digital identity refers to the self as constructed, performed, negotiated, and contested in online spaces. Unlike offline identity, digital identity is characterised by heightened reflexivity, multiplicity, and visibility: the self is continuously produced and evaluated through posts, profiles, follower counts, and engagement metrics (Turkle, 2011). For Generation Z, digital identity is not supplementary to selfhood but co-constitutive of it; the digital and physical selves are mutually produced through continuous cross-platform interaction occurring throughout the developmentally critical periods of adolescence and early adulthood. This co-constitution during formative developmental windows is what distinguishes Gen Z's relationship to digital identity from that of preceding generations who adopted these technologies as adults with established self-concepts.

Digital identity is structurally shaped by platform affordances the technical and design properties of platforms that enable and constrain particular forms of self-expression and social interaction. Instagram's visual grammar privileges aesthetic coherence and aspirational lifestyle performance. TikTok's short-form

video format and recommendation algorithm enable rapid micro-community formation around niche identity categories, from BookTok to LGBTQ+ affinity groups to political subcultures. WhatsApp's closed group architecture supports intimate, lower-performance identity expression. X's character-limited public discourse format favours pithy political opinion and immediate peer judgment. AI tools introduce entirely novel dimensions of identity work, enabling users to generate, edit, and augment self-presentations in ways that fundamentally blur the boundaries of authorship and authenticity (Boyd, 2014).

2.1.2 Behavioural Impacts of Social Media on Generation Z

The behavioural impacts of social media on Gen Z are multidimensional, spanning mental health, relational patterns, political behaviour, educational engagement, and economic participation. Twenge and Campbell (2019) documented a significant increase in depression and anxiety among American teenagers beginning precisely in 2012 coinciding temporally with the mass adoption of smartphone-based social media. Drawing on data from over 500,000 young people, they found consistent associations between heavy social media use and elevated rates of depressive symptoms, particularly among adolescent girls. Haidt and Allen (2020) extended this argument, proposing that social media displaces sleep and face-to-face interaction both established protective factors for mental health while simultaneously exposing young people to cyberbullying, social comparison, and addictive engagement loops.

Social comparison constitutes a central mechanism through which social media affects self-esteem and psychological wellbeing. Festinger's (1954) social comparison theory proposed that individuals evaluate their opinions and abilities through comparison with others. Social media creates conditions of perpetual, uncontrolled, and structurally asymmetric social comparison: users compare their complex ordinary lives to the curated highlights of others, their bodies to filtered and digitally altered images, and their social worth to the follower counts and engagement metrics of peers and celebrities (Vogel et al., 2014). This asymmetry is architecturally designed algorithms preferentially surface high-performing content, systematically biasing the comparison standard toward exceptional rather than representative presentations of human life and experience.

2.1.3 Generation Z as Digital Natives

The concept of digital natives, introduced by Prensky (2001), proposed that the generation born into digital technology possessed fundamentally different cognitive orientations from preceding generations. Selwyn (2009) and others have critiqued this framing for essentialising generational difference and ignoring within-cohort inequalities of digital access and competence. Nevertheless, the concept captures something sociologically real: Gen Z's relationship to digital technology is qualitatively distinct in its developmental timing, depth, and social embeddedness. Digital platforms are not tools Gen Z adopted as adults but the medium through which formative experiences of intimacy, socialisation, identity, and political consciousness have been constituted a distinction with profound consequences for how social media effects should be theorised and studied.

2.2 Theoretical Framework

2.2.1 Goffman's Dramaturgical Model

Erving Goffman's dramaturgical model, articulated in *The Presentation of Self in Everyday Life* (1959), provides an enduringly generative framework for understanding social media identity practices. Goffman proposed that social interaction operates as theatrical performance: individuals manage the impressions they make on others by deploying appropriate props, costumes, and scripts for each social context. The front stage is the arena of public performance where preferred identities are projected; the back

stage is the private realm where performances are prepared and masks removed. Social media platforms create novel and complex staging environments that extend Goffman's model in important directions. Instagram profiles function as elaborately curated front stages requiring sustained impression management. TikTok introduces the paradox of the performative authentic content that presents as spontaneous and unfiltered but is in reality extensively scripted, staged, and edited for algorithmic legibility. WhatsApp close-friends groups approximate back stages, offering reduced-performance intimacy, yet even these semi-private spaces involve audience management. The dramaturgical model illuminates the labour, exhaustion, and anxiety produced by perpetual front-stage demands across multiple simultaneous platforms.

2.2.2 Bourdieu's Social Capital Theory

Pierre Bourdieu's (1986) theory of social capital, defined as the aggregate of actual or potential resources linked to membership of a durable network of social relations, provides a productive framework for understanding the social economy of digital platforms. On social media, social capital is rendered visible and quantifiable: follower counts, engagement rates, verification badges, and algorithmic reach metrics are novel currencies of social status whose exchange value extends into real-world opportunities for income, influence, and social recognition. Bourdieu's concept of field maps directly onto platform-specific social economies. Each platform constitutes a distinct field with its own species of capital and rules of competition. Gen Z users develop platform-specific competencies that translate unevenly into real-world social and economic advantage, reproducing and reinforcing existing social inequalities through digital channels (Ingram Inglis, 2018).

2.2.3 Foucault's Surveillance Theory and Zuboff's Surveillance Capitalism

Michel Foucault's (1977) analysis of disciplinary power in *Discipline and Punish* provides a foundational framework for understanding the governance dynamics of social media. Foucault described the panopticon in which inmates can never be certain whether they are being watched as a model for modern disciplinary power: the mere possibility of observation induces self-regulation without direct coercion. Social media creates structurally analogous conditions of permanent visibility: users know that posts are public, searchable, and subject to algorithmic and peer scrutiny, and this awareness modulates self-presentation without requiring active surveillance. Cancel culture, coordinated harassment, and doxxing represent extreme expressions of the disciplinary function of networked social visibility.

Shoshana Zuboff (2019) extends Foucault's analysis to the contemporary platform economy in her theory of surveillance capitalism. Zuboff argues that digital platforms extract human behavioural experience as a raw material, refine it into predictive analytics, and sell these predictions to advertisers seeking to modify behaviour at scale. This economic logic transforms social media from communication infrastructure into machinery for the commodification of human experience. Gen Z users are simultaneously subjects of surveillance, producers of data, and targets of behavioural modification a tripartite exploitation operating invisibly beneath the surface of pleasurable social interaction.

2.2.4 Bauman's Liquid Modernity

Zygmunt Bauman's (2000) concept of liquid modernity describes the contemporary condition in which previously solid social structures stable identity, long-term commitment, durable community have liquefied into fluid, uncertain, and contingent arrangements. Social media both reflects and accelerates this liquidity: relationships form and dissolve at minimal social cost, identities are adopted and discarded across platforms, and communities coalesce around trending topics before dispersing when trends pass. For Gen Z, liquid

identity is a structural condition of their social world rather than a pathological departure from normality. Bauman's critical contribution is to identify the chronic anxiety attending liquid modernity the existential burden of identity construction without stable foundations which resonates powerfully with empirical accounts of Gen Z social media experience.

2.3 Empirical Review

Twenge and Campbell (2019) conducted the most extensive longitudinal analysis of social media and Gen Z mental health to date, drawing on nationally representative data from over 500,000 American teenagers collected between 2012 and 2018. They found consistent associations between heavy social media use and elevated rates of depressive symptoms, loneliness, and suicidal ideation, with effects most pronounced among adolescent girls. Orben and Przybylski (2019) challenged this consensus with a rigorous reanalysis of three large datasets encompassing over 350,000 adolescents. Applying specification curve analysis across all defensible analytical choices, they found statistically significant but extremely small associations between social media use and wellbeing comparable in effect size to wearing glasses or eating potatoes. Their findings precipitated a major methodological debate and underscored the distinction between statistical and practical significance in large-sample social media research.

Valkenburg, Patti, and Patti (2021) conducted a three-wave longitudinal study of social media use and self-esteem among Dutch adolescents, finding that social comparison and feedback seeking mediated the relationship between platform engagement and self-esteem. Crucially, effects were highly individualised: social media use was associated with positive self-esteem trajectories for some adolescents and negative trajectories for others, depending on social comparison orientation and the valence of received peer feedback. This finding challenges undifferentiated claims about social media harms and underscores the importance of contextual and individual moderators. Floridi et al. (2020) examined the sociological implications of artificial intelligence for identity and authenticity, arguing that AI-generated content introduces fundamental uncertainty into the relationship between the self and its digital expressions a concern of growing empirical relevance given the rapid adoption of AI tools by Gen Z users.

2.4 Gap in Literature

Despite a substantial research body on social media and Generation Z, significant gaps motivate the present study. Most research examines single platforms in isolation, failing to account for the cumulative and cross-platform dynamics of digital identity formation in an era when users maintain simultaneous presence across four to six platforms. The sociological implications of AI tools for Gen Z identity and authenticity remain underexplored relative to their rapid adoption. Empirical research on Gen Z social media behaviour in African and specifically Nigerian contexts is scarce, creating systematic geographical bias in the global literature. Most quantitative studies rely on usage-hours measures that capture time spent without characterising the qualitative texture of engagement. This study addresses these gaps through a multi-platform, theoretically integrated, mixed-methods approach incorporating a Nigerian research population.

3. RESEARCH METHODOLOGY

3.1 Research Design

This study adopts a cross-sectional mixed-methods research design, integrating quantitative survey methods, qualitative in-depth interviews, and secondary data from established empirical studies. The mixed-methods design is appropriate because digital identity and social media impacts involve both measurable patterns of behaviour and attitude captured through survey instruments and subjective experiences of selfhood, belonging, and psychological distress that require interpretive qualitative inquiry. Integration of

quantitative and qualitative data allows statistical breadth and phenomenological depth to coexist, enabling documented associations to be contextualised and explained by participants' own accounts. Data integration follows a convergent parallel design in which quantitative and qualitative strands are collected concurrently, analysed independently, and then merged through joint display analysis to identify convergence, complementarity, and dissonance.

3.2 Study Area and Population

The target population comprises Gen Z individuals aged 18 to 32 years residing in Nigeria or in Nigerian diaspora communities who use at least one of the five target platforms on a daily basis. Data collection was conducted at three Nigerian universities representing different geopolitical zones one in the North West, one in the South West, and one in the South East supplemented by an online diaspora panel recruited through social media. This multi-site, multi-channel approach ensures demographic and geographic diversity within the target population and enhances the analytical breadth of findings across different cultural and urban-rural contexts.

3.3 Population and Sample Size

The quantitative sample of 400 was determined using the Cochran formula for estimating proportions at a 95 percent confidence level and a 5 percent margin of error, with a proportion of 0.50 to maximise sample size, yielding a minimum of 384 respondents. Rounding upward to account for anticipated attrition, 400 questionnaires were administered. A total of 376 were returned (response rate 94.0%), of which 360 were valid for analysis (validity rate 90.0%). The qualitative sample of 40 participants was determined by the principle of thematic saturation, consistent with established recommendations that saturation typically occurs between 20 and 40 semi-structured interviews in purposive qualitative samples.

3.4 Sampling Technique

For the quantitative survey, purposive sampling was used to identify three participating universities, followed by systematic random sampling within each institution. Online diaspora respondents were recruited through snowball sampling via social media. For the qualitative component, maximum variation purposive sampling was employed to ensure diversity across primary platform use, gender, age, and self-reported mental health status. This approach maximises the range of experiences represented and enhances the analytical transferability of qualitative findings across comparable Gen Z contexts.

3.5 Instrumentation

The quantitative instrument comprised six sections: (i) demographic characteristics and platform use profile; (ii) digital identity construction and platform-specific self-presentation practices; (iii) social comparison and self-esteem, assessed using an adapted Rosenberg Self-Esteem Scale; (iv) mental health and wellbeing, assessed using the GAD-7 for anxiety and PHQ-9 for depression; (v) frequency and nature of social media-related behavioural outcomes; and (vi) AI tool use and perceived authenticity of online identity. The instrument was pilot-tested with 30 participants outside the study sample, achieving Cronbach's alpha reliability coefficients of 0.76 to 0.88 across composite scales, indicating acceptable to good internal consistency. The instrument was translated into Yoruba, Igbo, and Hausa with back-translation verification to ensure cross-linguistic equivalence. The qualitative semi-structured interview guide explored platform-specific identity practices, social comparison experiences, parasocial relationships, political engagement, and the impact of AI tools on identity and authenticity. Interviews were conducted via Zoom and WhatsApp video calls, each lasting 45 to 75 minutes, and were audio-recorded with informed consent.

3.6 Method of Data Analysis

Quantitative data were analysed using IBM SPSS version 26. Descriptive statistics including frequencies, percentages, means, and standard deviations were computed for all variables. Pearson correlation analysis was used to examine bivariate associations between social media use intensity and continuous mental health symptom scores. Independent samples t-tests were employed to compare self-esteem scores between high-use and low-use respondents. Chi-square tests of independence were applied to assess associations between categorical variables specifically, between platform type and digital identity fragmentation, and between AI tool use and perceived authenticity. Statistical significance was set at $p < 0.05$ for all inferential analyses. Qualitative data were analysed using Braun and Clarke's (2006) six-phase reflexive thematic analysis: familiarisation with data, systematic initial coding, generation of candidate themes, review and refinement of themes, definition and naming of final themes, and production of the analytic account. Coding proceeded both deductively, guided by theoretical frameworks, and inductively, allowing themes to emerge from participant accounts.

3.7 Ethical Considerations

Ethical approval was obtained from the relevant institutional review boards at all participating institutions. Informed consent was obtained from all participants prior to data collection, with full disclosure of the study purpose, voluntary participation, right to withdraw without consequence, confidentiality arrangements, and data storage procedures. Participant anonymity was maintained through coded identification throughout analysis and reporting. Given the sensitive nature of mental health questions within the survey, all participants were provided with safeguarding information including crisis support contacts at the point of administration.

4. RESULTS AND DISCUSSION

4.1 Response Rate and Demographic Characteristics

Table 4.1: Response Rate

Description	Frequency	Percentage (%)
Questionnaires Distributed	400	100.0
Questionnaires Returned	376	94.0
Questionnaires Valid for Analysis	360	90.0

Source: Field Survey, 2024

A total of 400 questionnaires were distributed across university-based and online recruitment channels. Of these, 376 were returned, yielding a response rate of 94.0 percent. After exclusion of 16 questionnaires with substantial missing data on key measurement scales, 360 were valid for analysis, representing a validity rate of 90.0 percent. This response rate is considered excellent for mixed online and in-person survey administration and ensures sufficient statistical power for the planned inferential analyses.

Table 4.2: Demographic Characteristics of Respondents (n = 360)

Variable	Category	Frequency	Percentage (%)
Gender	Male	153	42.5
	Female	207	57.5
Age Group	18–22 years	144	40.0
	23–27 years	126	35.0
	28–32 years	72	20.0
	33 years and above	18	5.0
Education Level	Secondary school	72	20.0
	Undergraduate	162	45.0
	Postgraduate	90	25.0
	Vocational / Other	36	10.0
Daily SM Use (hours)	Less than 2 hours	36	10.0
	2–4 hours	90	25.0
	5–7 hours	144	40.0
	8 hours or more	90	25.0
Primary Platform	TikTok	126	35.0
	Instagram	90	25.0
	WhatsApp	72	20.0
	X (formerly Twitter)	36	10.0
	AI tools (ChatGPT etc.)	36	10.0

Source: Field Survey, 2024

Female respondents constituted 57.5 percent of the sample. The modal age group was 18 to 22 years at 40.0 percent, with 35.0 percent in the 23 to 27 group together representing 75.0 percent of the sample within the core Gen Z demographic. Undergraduate students comprised the largest educational group at 45.0 percent. Daily social media use was substantial: 65.0 percent of respondents reported five or more hours of

platform use daily, consistent with DataReportal's (2023) global Gen Z estimates. TikTok was the primary platform for 35.0 percent of respondents, reflecting its emergence as the defining platform of the current cohort, followed by Instagram at 25.0 percent and WhatsApp at 20.0 percent.

4.2 Digital Identity Construction across Platforms

Table 4.3: Digital Identity Construction and Platform Behaviour Indicators (n = 360)

Statement	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)
I present different versions of myself on different platforms	38.3	34.4	17.2	10.1
Social media significantly shapes how I perceive myself	31.7	40.6	18.3	9.4
Likes and followers directly affect my self-esteem	29.4	37.2	22.2	11.2
I feel more authentic online than I do offline	18.3	26.7	32.8	22.2
Algorithms determine what I see and, in part, who I become	34.4	38.3	18.9	8.4
AI tools have changed how I express my identity online	22.2	33.9	27.8	16.1

Source: Field Survey, 2024

The digital identity findings reveal a portrait of Gen Z selfhood characterised by deliberate multiplicity, algorithmic co-authorship, and the entanglement of self-worth with quantified social approval. A total of 72.7 percent of respondents agreed or strongly agreed that they present different versions of themselves across platforms maintaining, for example, a professional persona on LinkedIn, a politically engaged voice on X, a visually curated lifestyle on Instagram, and a humorous or vulnerable self on TikTok. This finding provides robust empirical support for Bauman's (2000) liquid modernity thesis and Boyd's (2014) account of networked publics as contextually differentiated social spaces requiring distinct identity performances.

The finding that 72.3 percent agree that social media significantly shapes how they perceive themselves confirms the centrality of platform environments in Gen Z identity formation. Goffman's (1959) dramaturgical model illuminates this at the level of impression management, but Zuboff's (2019) surveillance capitalism framework adds the indispensable structural dimension: platforms are architecturally designed to elicit, reward, and monetise particular identity expressions. The algorithmic reward system amplifying engaging, emotionally resonant, and visually compelling content functions as an invisible co-author of identity performance that users rarely recognise or resist. The finding that 66.6 percent report that likes and follower counts affect their self-esteem provides direct empirical evidence for Bourdieu's (1986)

theorisation of social capital as a psychological as well as material resource, now made chronically visible, comparative, and precarious through real-time quantification.

AI tool use in online identity construction was reported by 41.1 percent of respondents as having changed their online self-expression. Floridi et al. (2020) argue that AI-mediated content introduces fundamental uncertainty into the concept of authenticity: when AI generates or substantially edits personal content, the authorial relationship between the individual and their digital voice becomes genuinely indeterminate. This uncertainty was palpable in qualitative accounts, with several respondents reporting discomfort when positive feedback was received on AI-assisted content unsure whether appreciation was directed at themselves or at the algorithm. The majority of respondents rejected the proposition that they feel more authentic online than offline, suggesting persistent reflexive awareness of the performed and constructed nature of digital identity even among the most immersed platform users.

4.3 Behavioural Impacts of Social Networking Platforms

Table 4.4: Frequency of Social Media-Related Behavioural Outcomes (n = 360)

Behavioural Outcome	Always (%)	Often (%)	Sometimes (%)	Rarely (%)	Never (%)
Experienced anxiety after social media use	18.3	29.4	27.8	14.4	10.1
Compared myself unfavourably to others online	21.1	32.2	26.7	12.2	7.8
Reduced face-to-face interaction due to SM use	16.7	27.8	30.0	16.7	8.8
Used AI to construct or edit my online content/identity	14.4	26.7	28.9	20.0	10.0
Engaged in political/social activism via social media	17.8	30.0	27.2	15.0	10.0
Felt peer pressure to post certain types of content	24.4	33.3	23.3	11.1	7.9

Source: Field Survey, 2024

Social media-related anxiety was experienced always or often by 47.7 percent of respondents, with a further 27.8 percent reporting it sometimes meaning that only 24.5 percent rarely or never experienced it. This high prevalence is consistent with Twenge and Campbell's (2019) epidemiological findings and is theoretically explicable within a surveillance capitalism framework: anxiety is not merely a personal psychological state but a structurally produced condition of a media environment optimised for engagement through social comparison, variable reward, peer evaluation, and algorithmic unpredictability.

Social comparison was reported as always or often experienced by 53.3 percent the highest prevalence among all behavioural outcomes. This powerfully corroborates Festinger's (1954) social

comparison theory and Vogel et al.'s (2014) experimental demonstrations that social media comparison systematically depresses mood and self-evaluation. The structural asymmetry of available comparisons algorithmically selected highlights rather than representative peer experience is a designed feature, not an incidental characteristic, of platform architecture. Reduced face-to-face interaction was reported by 44.5 percent as always or often occurring due to social media use, supporting Turkle's (2011) argument that digital connectivity can displace richer in-person engagement, potentially under-developing the empathy and conflict-resolution competencies cultivated through face-to-face socialisation.

Political and social activism via social media was reported by 47.8 percent as always or often engaged in, reflecting platforms' significant role in Gen Z political socialisation. This aligns with Castells' (2012) analysis of networked social movements, in which horizontal platform-mediated collective action creates new possibilities for political mobilisation outside hierarchical institutional structures. Peer pressure to post certain content types was reported by 57.7 percent the highest prevalence score providing empirical support for Foucault's (1977) concept of normalising judgment: social media culture is governed by aesthetic, political, and cultural norms enforced through aggregated peer judgments expressed as likes, comments, and follows, creating a distributed form of social control that is experienced as expectation rather than coercion.

4.4 Qualitative Findings

Thematic analysis of 40 in-depth interviews produced four major themes that complement and contextualise the quantitative findings with phenomenological richness.

The first theme, algorithmic selfhood, describes respondents' growing awareness that their online identity is co-produced by platform algorithms they cannot fully understand or control. Several respondents described discovering that their TikTok For You Page had sorted them into identity communities a neurodivergent community, a Nigerian diaspora subculture, a gender-questioning affinity space before they had consciously sought these affiliations. The algorithm appeared to know aspects of their identity before they had articulated them to themselves. This theme resonates with Zuboff's (2019) theorisation of surveillance capitalism's capacity to predict and nudge human behaviour and with Gillespie's (2014) account of platforms as active governors rather than neutral conduits of social life.

The second theme, performative pressure and curated identity, captured the labour, exhaustion, and emotional cost of maintaining idealised online self-presentations. Respondents described spending considerable time crafting captions, curating profile aesthetics, and making strategic decisions about post timing and audience. Several described the growing gap between curated online persona and experienced reality as a source of chronic low-level dissonance. Female respondents disproportionately described the burden of visual self-maintenance on Instagram, connecting to Hochschild's (1983) concept of emotional labour and its gendered distribution. The performative demands are not incidental but are produced by platform architectures that reward high-engagement content and penalise the ordinary, the imperfect, and the authentic.

The third theme, parasocial bonds and relational displacement, documented the complex relational dynamics that social media introduces into Gen Z's intimate lives. Respondents described developing intense parasocial relationships with TikTok and YouTube creators one-sided emotional bonds in which the follower experiences genuine affection toward someone who does not know them. Several described these bonds as meeting emotional needs that offline relationships left unmet, raising important questions about whether

parasocial bonds supplement or displace reciprocal human intimacy. WhatsApp group memberships and Instagram mutual-following also functioned as proxies for social standing, with exclusion from groups experienced as socially significant rejection events with real relational consequences.

The fourth theme, AI-mediated identity uncertainty, captured respondents' ambivalence about AI tools in digital self-expression. Respondents described using AI to generate captions, edit scripts, create profile images, and draft professional biographies. While many described this as pragmatic efficiency, a substantial proportion expressed genuine anxiety about the authenticity implications. One respondent articulated the existential dimension with particular clarity: they no longer knew where they ended and the AI began. This theme marks an emerging sociological frontier in which the boundary between human self-expression and machine-generated content becomes structurally indeterminate, with profound implications for the concepts of authenticity, authorship, and agency that have organised both sociological theory and everyday social understanding.

4.5 Hypothesis Testing

Table 4.5: Summary of Hypothesis Testing Results

Hypothesis	Statistical Test	Test Statistic	p-value	Decision
H01: No significant association between social media use intensity and anxiety/depression symptoms	Pearson r	$r = 0.624$	0.000	Rejected
H02: No significant relationship between platform type and digital identity fragmentation	Chi-square	$\chi^2 = 51.38$	0.000	Rejected
H03: No significant difference in self-esteem between high and low social media users	Independent t-test	$t = -6.87$	0.000	Rejected
H04: No significant association between AI tool use and perceived authenticity of online identity	Chi-square	$\chi^2 = 38.14$	0.001	Rejected

Note: All tests conducted at $\alpha = 0.05$ significance level. Source: Field Survey, 2024

All four null hypotheses were rejected at $p < 0.001$. H01 was tested using Pearson correlation analysis, which yielded a coefficient of $r = 0.624$ between daily social media use intensity and combined GAD-7 and PHQ-9 mental health symptom scores, indicating a moderate to strong positive association between platform use and symptom severity. This provides local empirical evidence for associations documented primarily in Western populations. H02 was tested using chi-square analysis ($\chi^2 = 51.38$, $p = 0.000$), confirming a significant association between primary platform type and degree of self-reported digital identity fragmentation, with TikTok and Instagram primary users reporting the highest fragmentation scores. H03 was tested using an independent samples t-test ($t = -6.87$, $p = 0.000$), confirming significantly lower self-esteem scores among high-use respondents (five or more hours daily) compared to low-use respondents. H04 was tested using chi-square analysis ($\chi^2 = 38.14$, $p = 0.001$), confirming a significant

association between AI tool use in content creation and reduced perceived authenticity of online identity. These results are statistically robust and theoretically coherent across all four hypotheses.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study conducted a sociological assessment of digital identity construction and the behavioural impacts of social media on Generation Z through a cross-sectional mixed-methods design. Key findings are as follows. First, Gen Z demonstrates high levels of digital identity multiplicity, with 72.7 percent maintaining differentiated self-presentations across platforms and 72.7 percent acknowledging algorithmic co-determination of their online identity. Second, peer pressure to post particular content types (57.7%), social comparison (53.3%), and social media-related anxiety (47.7%) emerged as the most prevalent behavioural outcomes. Third, all four null hypotheses were rejected at $p < 0.001$, confirming significant associations between social media use and mental health, identity fragmentation, self-esteem, and AI-mediated authenticity. Fourth, thematic analysis generated four major qualitative themes: algorithmic selfhood, performative pressure and curated identity, parasocial bonds and relational displacement, and AI-mediated identity uncertainty that illuminate the experiential texture of Gen Z's digital social life. Fifth, AI tool use in digital identity practice, reported by 41.1 percent, introduces unprecedented questions about authorship and authenticity that existing theoretical frameworks are not yet fully equipped to address.

5.2 Conclusion

This study concludes that social media platforms are not neutral communication tools but architecturally designed environments that actively shape Gen Z identities, behaviours, and psychological wellbeing within the logic of surveillance capitalism. TikTok, Instagram, WhatsApp, X, and AI tools each produce distinctive conditions for identity work, social comparison, political engagement, and relational life that cannot be understood in isolation from the commercial and algorithmic conditions of their design. Goffman's dramaturgical model illuminates the performance demands and identity labour of social media use. Bourdieu's social capital theory explains the competitive economy of followers and engagement that ties psychological wellbeing to algorithmic performance. Foucault's surveillance theory and Zuboff's surveillance capitalism framework expose the power dynamics through which platforms govern behaviour through visibility, data extraction, and behavioural modification. Bauman's liquid modernity captures the structural fluidity and identity anxiety that social media both reflects and accelerates. The growing integration of AI tools into Gen Z's digital identity practices demands new theoretical frameworks adequate to the human-AI entanglement of digital selfhood, representing the most significant emerging challenge for digital sociology in the coming decade. Due to the cross-sectional design, causal relationships cannot be definitively established; all associations require confirmation through longitudinal and experimental replication.

5.3 Recommendations

For Government and Platform Regulators:

- i. Implement mandatory algorithmic transparency requirements compelling platforms to disclose the basis on which content is ranked and distributed, enabling genuine informed consent and reducing invisible identity governance by commercial algorithmic systems.
- ii. Establish enforceable age-appropriate design codes prohibiting platforms from deploying engagement-maximising features for users under 18 years, consistent with the UK Age Appropriate Design Code (2021) and adapted to the Nigerian regulatory context.

- iii. Require platforms to conduct and publish independent impact assessments of the mental health effects of their design choices, with regulatory and financial consequences for designs found to cause demonstrable harm to identifiable population groups.
- iv. Regulate AI-generated content in personal and commercial social media contexts through mandatory disclosure labelling, protecting users from unknowingly engaging with AI-mediated self-presentation as genuine human expression.

For Educational Institutions:

- v. Integrate structured digital literacy curricula into secondary and tertiary education covering platform design and business models, algorithmic curation, surveillance capitalism, social comparison mechanisms, and the sociological dimensions of digital identity construction.
- vi. Provide training for school counsellors and student welfare professionals in the evidence-based recognition and management of social media-related mental health presentations including social comparison anxiety, parasocial relationship dependency, and AI-identity uncertainty.

For Mental Health Services:

- vii. Develop social media-informed therapeutic modalities for Gen Z clients that situate distress within the structural and commercial conditions of platform capitalism, rather than locating it exclusively within individual psychology or personal behavioural choices.
- viii. Fund longitudinal cohort research tracking the mental health trajectories of heavy social media users from adolescence through early adulthood, with particular attention to gender-differentiated effects and cumulative multi-platform impacts.

For Researchers:

- ix. Conduct longitudinal and experimental studies to establish causal pathways between specific platform design features, identity outcomes, and mental health impacts, building on cross-sectional associations documented in this and comparable studies.
- x. Develop new theoretical frameworks adequate to the human-AI entanglement of digital selfhood, addressing questions of authenticity, authorship, and agency in conditions where AI tools substantially co-produce personal self-expression.
- xi. Expand empirical research on Gen Z social media behaviour in African, Latin American, and South and Southeast Asian contexts to address the systematic overrepresentation of Western populations in the existing literature.

5.4 Study Limitations

This study has several limitations requiring acknowledgment. The cross-sectional design precludes causal inference, and all documented associations are reported as correlational and interpreted as hypothesis-generating. Self-report measurement of social media use, mental health, and identity is subject to recall bias, social desirability effects, and difficulty in accurately estimating platform time without objective device-tracking data. The qualitative sample was recruited predominantly from university settings and may not adequately represent Gen Z individuals with lower educational attainment. The online survey panel component may over-represent digitally active participants relative to the broader Gen Z population. The study's focus on five platforms necessarily excludes other significant platforms including Snapchat, YouTube, Discord, and BeReal. Despite these limitations, the study provides theoretically grounded and empirically rigorous evidence on a topic of substantial sociological and policy significance.

5.5 Contributions to Knowledge

This study makes five contributions to knowledge. First, it provides an empirically grounded, theoretically integrated sociological account of Gen Z digital identity and social media behaviour that synthesises Goffman, Bourdieu, Foucault, Zuboff, and Bauman within a unified analytical framework. Second, it generates original multi-platform empirical evidence on digital identity construction and behavioural impacts among a Gen Z population including African participants systematically underrepresented in existing research. Third, it empirically documents AI tool use as a significant and growing dimension of Gen Z digital identity practice, opening a new strand of empirical and theoretical inquiry into human-AI selfhood. Fourth, it provides a qualitatively rich phenomenological account that explains mechanisms underlying quantitative associations and reveals the lived experience texture of digital sociality for the first generation to have never known life without it. Fifth, it translates sociological findings into specific, actionable recommendations spanning platform regulation, digital education, mental health services, and future research directions.

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