Digital Anthropology: Navigating Human Experience in the Age of Artificial Intelligence and Social Media

Abulgasem ISSA Al Mashai*

Independent researcher, Libyan Authority for Scientific Research, Libya

***Corresponding Author:**
Abulgasem ISSA Al Mashai, Independent researcher, Libyan Authority for Scientific Research, Libya.

Abstract

The digital transformation, encompassing the evolution from early internet usage to the rise of artificial intelligence (AI), has fundamentally redefined human existence, behavior, and social organization. This paper explores the concept of "digital anthropology," analyzing the transformative effects of digital technology across generations, with a particular focus on Generation Z and Generation Alpha. By tracing shifts in human behavior, culture, and identity through the lens of digital evolution, this study offers a critical exploration of the present and a forward-looking perspective on the future of digital humanity. The integration of empirical data and theoretical frameworks underscores the significance of understanding the implications of digital technologies on societal structures and individual identities.

Keywords: Digital Anthropology, Digital Identity, Artificial Intelligence ,Human Generation

Introduction

Over the past three decades, humanity has experienced an unprecedented transformation in communication, connection, and meaning-making. The digital age, initiated by widespread internet adoption, has evolved significantly with the emergence of AI, altering not only our interactions with technology but also our self-perception as humans. This paper aims to investigate digital anthropology, focusing on the transition from the early internet era to the AI age and the implications for current and future generations. By employing a multidisciplinary approach, this study seeks to contribute to the understanding of how digital technologies shape human experiences and societal dynamics.

The Early Internet Era: A New Digital Anthropology

The advent of the internet in the 1990s triggered a seismic cultural shift, dismantling traditional barriers of time and space and reshaping global social structures. Early internet users witnessed the birth of new digital communities, such as forums and blogs, which created spaces for self- expression, identity formation, and knowledge sharing.

Anthropological Insights on the Early Internet

- **Identity Fragmentation:** The anonymity afforded by early internet usage allowed individuals to experiment with multiple identities, often diverging from their real-world personas. This fluidity of identity resonates with themes in postmodern anthropology, where individuals negotiate their sense of self across diverse contexts [1] .

- **Cultural Globalization:** Early internet usage accelerated cultural globalization, enabling communities from diverse geographical backgrounds to interact. Local cultures began to merge with global phenomena, leading to the hybridization of cultural identities (Castells, 2000). Thisera gave rise to a new type of individual operating within virtual spaces, representing what we now refer to as the "digital human."

Data on Internet Growth

The table (1) highlights a dramatic increase in global internet usage from 1995 to 2024. In 1995, there were approximately 23,500 internet users, representing only 0.4% of the global population. By 2024, this number surged to over 5.3 billion users, accounting for about 67% of the global population. This growth reflects significant advancements in technology, increased accessibility, and the vital role of the internet in everyday life. The rise in internet penetration underscores the internet's transformation into an essential utility, shaping social dynamics and economic opportunities worldwide.

Year	Internet Users (in billions)	Global Internet Penetration Rate (%)
1995	0.0000235	0.4
2024	5.3	67

Table 1: Internet Users and Global Internet Penetration Rate, Source: Internet World Stats (2024)

The Social Media Era: A Shift in Communication and Identity

By the early 2000s, with the emergence of platforms like Facebook, YouTube, and Twitter, the internet became increasingly social. The focus shifted from anonymous communities to curated profiles, where users meticulously crafted their identities for their followers.

Key Anthropological Transformations in the Social Media Era

- **Digital Self-Presentation:** Anthropologists note that, in contrast to the fluid identities of the early internet, social media promotes a more stable yet performative self-presentation. Individuals engage in selective self-representation, shaping their image for social validation [2] .
- **Virtual Communities:** With the rise of social media, virtual communities began to coalesce around shared interests, values, and identities. These platforms facilitated a sense of belonging and kinship, albeit mediated by digital tools [3] .
- **Impact on Generational Identity:** Social media has become a hallmark of generational identity, particularly for Generation Z, who have grown up with these platforms. Their collective consciousness is shaped by awareness of global issues, activism, and the ability to mobilize and communicate instantly [4] .

Data on Social Media Growth

- **Social Media Users:** In 2010, there were approximately 970 million social media users worldwide. By 2023, this number has increased to over 4.9 billion, representing a growth rate of approximately 404% in just over a decade [5].
- **Daily Time Spent on Social Media:** As of 2023, users spend an average of 2 hours and 31 minutes per day on social media platforms, reflecting the increasing integration of these platforms into daily life [6].

Generation Z and Generation Alpha: Digital Citizens in the Age of AI

Generation Z (born 1997-2012) is the first true digital generation, having never known a world without the internet or social media. Their formative years have been characterized by hyper- connectivity and digital interaction, with social media serving as a tool for identity exploration and social engagement.

Key Characteristics of Generation Z
- **Digital Fluency:** Generation Z navigates the online world effortlessly, adapting to new platforms, tools, and communication styles [7].
- **Heightened Awareness of Global Issues:** Thanks to the power of social media, Generation Z possesses a profound awareness of social, environmental, and political challenges, often utilizing digital tools to mobilize efforts [8].
- **Mental Health and Screen Time:** Anthropologists have highlighted concerns regarding the impact of digital technology on mental health, as Generation Z faces unprecedented challenges related to screen time, cyberbullying, and digital addiction [9] .

Data on Generation Z

- **Percentage of Digital Natives:** Approximately 98% of Generation Z owns a smartphone, and 45% report being online "almost constantly" [10].
- **Social Media Engagement:** 85% of Generation Z uses social media to stay informed about current events, reflecting their reliance on digital platforms for information .
- Conversely, Generation Alpha (born 2013-present) is growing up in an increasingly AI-driven world. Unlike previous generations that witnessed the rise of the internet, Generation Alpha will take AI for granted. This generation is expected to interact with AI systems from early childhood, fundamentally altering their learning, socialization, and cognitive development.

Key Characteristics of Generation Alpha

- **Integration of AI:** From smart toys to AI tutors, Generation Alpha's cognitive and social development will be closely intertwined with intelligent systems, influencing how they process information and interact with the world [11].
- **Dependence on Technology:** With unprecedented reliance on digital tools for learning, play, and communication, Generation Alpha may exhibit deeper forms of digital dependency compared to previous generations [12] .
- **Ethical Questions:** The rise of AI brings forth new anthropological concerns regarding the ethical dimensions of a highly automated society, such as privacy, surveillance, and the loss of human agency [13].

Data on AI Growth
- **AI Market Growth:** The global AI market was valued at approximately $27 billion in 2019 and is projected to reach $733 billion by 2027, growing at a compound annual growth rate (CAGR) of 42.2% [14] .
- **AI Adoption Rates:** A survey conducted by McKinsey in 2022 found that 56% of companies reported adopting AI in at least one business function, up from 50% in 2021 [15] .

The Digital Human in the Age of AI: Insights into the Present and Future
As we enter the age of AI, the concept of the digital human expands. AI systems now influence every aspect of human life, from healthcare and education to work and social interaction. The digital human in the AI era is shaped by continuous interaction with non-human intelligent entities.

Anthropological Perspectives on AI's Impact
- **Human-Machine Interaction:** The AI era witnesses new forms of interaction between humans and machines, where digital systems predict, assist, and sometimes make decisions on behalf of humans. The relationship between humans and AI raises fundamental questions about autonomy, agency, and trust [16] .
- **Posthumanism and Transhumanism:** Philosophers and anthropologists increasingly discuss the potential for a posthuman or transhuman future, where digital humans transcend biological limitations through technological enhancement [17].
- **AI and Social Inequality:** Digital anthropology must also consider the ethical challenges posed by AI. The role of AI in exacerbating or alleviating social inequalities will shape the structure of future societies [18] .

Conclusion: Future Visions for the Digital Human
Digital anthropology provides profound insights into how humans evolve alongside their technological creations. From the birth of the internet to the emergence of AI, each phase of digital transformation has redefined human identity, social interaction, and cultural practices. Generation Z and Generation Alpha are at the forefront of this transformation, embodying new ways of being human in a highly interconnected, AI-driven world.

Looking ahead, the future of the digital human will be characterized by greater integration of AI into daily life, reshaping not only the relationship between humans and technology but also the relationships among individuals. The ongoing evolution of AI systems and the potential for a posthuman or enhanced future will push the boundaries of what it means to be human[19-21].

Key Research Questions for Future Anthropological Inquiry
1.How will AI reshape human perception and identity in future generations?
2.What ethical frameworks will guide relationships between humans and AI?
3.How will increasing reliance on AI impact social inequality, labor, and personal agency?

References
1. Turkle, S. (2011) Alone Together: Why We Expect More from Technology and Less from Each Other. New York: Basic Books.
2. Goffman, E. (1959) The Presentation of Self in Everyday Life. Edinburgh: University of Edinburgh Social Sciences Research Centre.
3. Wellman, B. (2001) 'Physical place and cyberplace: The rise of personalized networking', International Journal of Urban and Regional Research, 25(2), pp. 227-252.
4. Seemiller, C. & Grace, M. (2016) Generation Z: A Century in the Making. New York: Routledge.
5. Statista (2023) 'Number of social media users worldwide from 2010 to 2023'.
6. We Are Social (2023) 'Digital 2023: Global Overview Report'.
7. Prensky, M. (2001) 'Digital natives, digital immigrants', On the Horizon, 9(5), pp. 1-6.
8. Bennett, W.L. & Segerberg, A. (2012) 'The logic of connective action: Digital media and the personalization of contentious politics', Information, Communication & Society, 15(5), pp. 739- 768.
9. Twenge, J.M. (2017) iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—And Completely Unprepared for Adulthood. New York: Atria Books.
10. Pew Research Center (2022) 'Gen Z and Social Media: A New Generation of Digital Natives'.
11. McCrindle, M. (2019) The ABC of XYZ: Understanding the Global Generations. Sydney: McCrindle Research.
12. RSPH (2019) #StatusOfMind: Social Media and Young People's Mental Health and Wellbeing. London: Royal Society for Public Health.
13. Zuboff, S. (2019) The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. New York: Public Affairs.
14. Fortune Business Insights (2020) 'Artificial Intelligence Market Size, Share & Industry Analysis, By Component (Software, Hardware, Services), By Technology (Machine Learning, Natural Language Processing, Computer Vision), By Application (Chatbots, Fraud Detection, Predictive Analytics), By Industry (Healthcare, Retail, BFSI, Automotive, IT & Telecom), and Regional Forecast, 2020-2027'.
15. McKinsey (2022) 'The state of AI in 2022: A year of growth and transformation'.
16. Shadbolt, N., O'Hara, K. & Hall, W. (2019) 'The ethics of artificial intelligence', AI & Society, 34(1), pp. 1-4.

17. Bostrom, N. (2005) 'A history of transhumanist thought', Journal of Evolution and Technology, 14(1), pp. 1-25.
18. Eubanks, V. (2018) Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor. New York: St. Martin's Press.
19. Castells, M. (2000) The Rise of the Network Society. 2nd edn. Oxford: Blackwell.
20. Internet World Stats (2023) 'Internet Growth Statistics'.
21. ITU (2023) 'Measuring digital development: Facts and figures 2023'.