Digital Stress and Psychological Outcomes in Digital Natives and Digital Immigrants: A Systematic Literature Review

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Abstract: This SLR was conducted in the field of digital communication in the specific context of intercultural communication. The main purpose of this SLR was to assess studies on psychological outcomes, anxiety, self-efficacy, and social media fatigue (SMF) among digital natives and digital immigrants who use social media and experience social media overload (SMO). Unlike meta-analyses, which statistically combine effect sizes, the present study was qualitative in nature; therefore, it employed a thematic Systematic Literature Review (SLR) adhering to PRISMA guidelines to ensure the reliability and transferability of the study, specifically the methodological process. A total of 45 studies were chosen using a Boolean search in Scopus. The studies range from 2000 to 2025. To focus on more recent research, most studies are from 2020 to 2025. Older studies were included only if they provided essential empirical support. The Boolean search included relevant predefined keywords aligned with the objectives of the SLR, such as coping patterns, generational adaptation, and stress responses. Due to social comparison, digital natives exhibited higher emotional dysregulation, with psychological outcomes and digital stress as foci, focusing on mobile social media. The SLR addresses the divide between digital immigrants and digital natives, particularly in Asia, Central Asia, and other regions transitioning from classical to digital communication. Additionally, this study found gaps in psychological outcomes and infrastructural issues, alongside the primary technological barriers, according to the objectives of the SLR. For example, immigrants experienced higher stress, including coping mechanisms, anxiety patterns, and barriers to digital literacy, offering psychological implications and recommendations to manage excessive digital exposure and SMO.

Keywords: Digital Natives, Digital Immigrants, Digital Technology, Technostress, Social Media, Digital Communication

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1. Introduction

Information overload and dependence on social media have also led to reduced life satisfaction and increased distress, particularly during and after the COVID-19 pandemic (Samala et al., 2024; Li et al., 2021; Yao et al., 2025; Zhao & Zhou, 2021). This has happened due to increased real-time interaction and communication, and it's specifically due to excessive use of social media applications such as Douyin (TikTok), WeChat, and Weibo (Cooper, 2023). The transformation from long-time content to short-time content also brought psychological outcomes that are considered negative for mental health, such as causing depression, fatigue, and anxiety (Geirdal et al., 2021; Kassymova et al., 2023; Shaleha & Roque, 2024; Yamini & Pujar, 2022). These negative psychological outcomes have often linked with the excessive usage and long screentime that happens due to the above-mentioned mobile apps that are always with individuals 24/7. On the other hand, these psychological issues might be found in youth as well as in older people who have shifted to technologically advanced cellphones. Due to these psychological issues, researchers have taken an interest in this tension that not only comprised upon yout but also older populations within studies (Vergara-Rodriguez et al., 2022; Xia et al., 2024). Therefore, this SLR was conducted, including cross-generational studies specifically in the context of younger users (digital natives) and older users (digital migrants). This fact, such as technostress, is overlooked in individual empirical studies in multidisciplinary research from 2000 to 2025. Whereas the latest trends are primarily aimed at delivering the best concept, the deep focus is on publications from 2020–2025, with a primary focus on Scopus data within the inductive-deductive thematic focus.

The global population and the older generation (digital immigrants) are rapidly increasing. As digital media, particularly social media use, rises by 78%, 76% of users engage with social media apps (Hoffmann et al., 2012; Hoffmann et al., 2014; Kemp, 2025; Kirk et al., 2015; Prensky et al., 2001; Ahn & Jung, 2014). While social platforms enhance social connectivity, they also introduce negative consequences, such as excessive use of social media can trigger fatigue (SMF) and overload (SMO), resulting in psychological issues such as anxiety, depression, and fatigue. These challenges are especially common among digital natives and immigrants (Autry & Berge, 2011; Fernandes & Oliveira, 2024; Li, Jiang, Yan, & Li, 2024; Pang, 2021). Socio-cultural change, infrastructure gaps, and age-related digital adaptation intensify these alarming threats.

In psychological resilience, general differences can be understood through the digital-native–digital-immigrant dichotomy. Specifically, digital immigrants often show hesitation to

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adopt new tools, retain an "accent," and face difficulties with information filtering (Prensky, 2001). As a result of these tendencies, older adults increasingly rely on intergenerational support, which in turn manifests as lower self-efficacy, especially when using communication platforms such as WeChat. This empirical evidence highlights how their digital status impacts psychological resilience (Jia, Liu & Peng, 2024; Li et al., 2024; Qi & Yang, 2024; Sun, Jia, Huang, Yu & Payton, 2024). Although digital natives are often viewed as highly technologically adept, they also tend to fear missing out or to engage in compulsive social comparisons. These tendencies, stemming from the overuse of social media platforms, introduce new stressors and lead to social media fatigue (Lusida et al., 2021; Geirdal et al., 2021).

Accordingly, in comparing digital natives and digital immigrants, this systematic literature review synthesizes empirical findings relevant to the outcomes of psychological digital stress across diverse cultural contexts (Ololube et al., 2013; Ransdell et al., 2010; Stickel, 2017; Vieira & Ribeiro, 2022). Based on multiple theoretical perspectives, such as Self-Efficacy Theory, Uses and Gratifications, and Cognitive Load Theory, this review identifies theoretical integrations, conceptual gaps, overarching patterns, or empirical investigations that might be examined within isolated contexts focusing on a single theory.

Notable studies have been conducted on digital stress; however, significant research gaps remain. These few studies and interventions have been limited to specific cultural transitional populations or to mobile usage, examining intergenerational differences in responses to SMO and SMF. Self-efficacy can act as a moderator in anxiety or as a mediator in psychological resilience (Qi & Yang, 2024; Sun et al., 2024; Zhang, Pan, Shi, Qin, & Guo, 2024). However, linguistic and infrastructural barriers are often overlooked in policy frameworks, which perpetuate cycles of digital marginalisation of digital immigrants (Zhang et al., 2022; Wrede, Rodil dos Anjos, Kettschau, Broding & Claassen, 2021).

Focusing on how digital stress affects different generations, this review, therefore, integrates Bandura's (1997) Self-Efficacy Theory, Cognitive Load Theory (Sweller, 1988; Wang, Zhao & Yu, 2025), and Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1973; Kim, Jung & Choi, 2023). There are key issues for digital immigrants, such as emotional regulation and task navigation, which are predominantly found in empirical studies. On the other hand, due to excessive technological usage, digital natives seem more vulnerable to SMF because of compulsive engagement and social comparison. These generational differences in psychological resilience, cognitive load, and digital fluency have been observed in recent studies (e.g., Folabit, Jita, & Jita, 2025; Ndasauka & Ndasauka, 2024; Qi & Yang, 2024).

From a practical perspective, researchers, educational and health institutions might find this review invaluable for their research, settings, and departments in culturally diverse digital contexts (Qi & Yang, 2024; Tran & Chen, 2024). Intergenerational mentorship and bilingual training, through the integration of community-led digital literacy programmes, can play a vital role in enhancing self-efficacy and reducing digital stress (Folabit et al., 2025; Wrede et al., 2021). Moreover, the broader scholarly discussion of self-efficacy (Bandura, 1997) and fatigue theory (Bright & Logan, 2018; Laumer & Maier, 2021), connecting them to social media overload, offers a new theoretical framework that spans global and cultural boundaries and is applicable in broader contexts.

Intentionally focusing on digital immigrants and digital natives, synthesising the literature on anxiety, self-efficacy, SMF, and SMO, and explaining the generational gap, this systematic review elucidates the mediating role of SMF in relation to anxiety, self-efficacy, and SMO (Kim et al., 2023; Parekh & Sharma, 2026; Sao et al., 2024). It suggests that digital stress resulting from technology use is mitigated by self-efficacy (Xia et al., 2025; Eastin & LaRose, 2000; Krantz et al., 2025). Accordingly, with this specific focus in mind, the review aims to address two main research questions: *(1) How do digital natives and digital immigrants differ in psychological outcomes such as anxiety, social media fatigue, and self-efficacy caused by social media overload? (2) How can Self-Efficacy Theory, Cognitive Load Theory, and Uses and Gratifications Theory jointly explain these generational differences in digital stress and coping strategies?*

1.1. Theoretical and Conceptual Frameworks

Digital Stress: In the contexts of social media and digital platform usage, psychological strain is often caused by overloaded connectivity, excessive use, or multitasking, which results in digital stress (Fischer, Reuter & Riedl, 2021; Yang & Smith, 2024), further leading to a negative impact on a person's capacity for activities, overwhelming mental fatigue (Ragu-Nathan, Tarafdar, Ragu-Nathan & Tu, 2008; Riedl, 2012).

Self-Efficacy: To carry out and organise future actions, individuals need to believe in their ability to handle them confidently, which is called self-efficacy (Bandura, 1997). In digital settings, how individuals approach technological challenges and the problem-solving approaches they use depend on how they apply self-efficacy (Wettstein, Ramseier & Scherzinger, 2021).

Cohort/Generation: differences between digital immigrants and digital natives are referred to as Cohort/Generation. For instance, digital immigrants face challenges in their adulthood due to the rapid emergence of new digital technologies. Conversely, digital natives adopt these technological advancements as they grow; however, due to excessive use, they also face challenges in their daily routines (Chaves et al., 2016; Hammaren et al., 2022; Helsper & Eynon, 2010; Jarrahi & Eshraghi, 2019; Xia et al., 2025).

Fatigue: in digital settings, intensification of interaction with digital tools often causes a sense of tiredness, emotional exhaustion, and prolonged mental health issues, often referred to as Fatigue (Ravindran, Yeow Kuan & Hoe Lian, 2014). Specifically, excessive use of digital and social media, along with repeated exposure, results in information overload that leads to social media fatigue (Dhir, Yossatorn, Kaur & Chen, 2018; Li et al., 2024).

2. Methodology

2.1. Review Research Design

To ensure reproducibility, transparency, and methodological rigour, the PRISMA guidelines (see Page et al., 2021) were carefully considered for this systematic literature review. The review synthesises social media overload, self-efficacy, fatigue, and anxiety in the context of comparative social media use among digital natives and digital immigrants. It employs a systematic literature review approach.

The studies included in this review were diverse and interdisciplinary; therefore, this review employed a strategic systematic literature review (SLR) instead of a meta-analysis. For instance, quantitative synthesis using quantitative content analysis was not a good fit for this type of synthesis. Thereafter, the SLR was finalised, employing a systematic 6-step approach proposed by Braun and Clarke (2006) to identify differences in psychological outcomes across the two generations, incorporating a coping analysis strategy. This approach also ensures that the inclusion of papers from Web of Science, Scopus, CNKI, ERIC, PsycINFO, and Google Scholar were most relevant yet from different fields of social sciences, such as education, communication and psychology, based on Boolean search logic aligned with this pre-defined approach in a digital global context (see Page et al., 2021 for more details).

2.2. Eligibility Criteria through Inclusion-Exclusion

The PECO framework (Population, Exposure, Comparison, and Outcome) was employed to finalise the papers for decision-making, and to determine which papers were included or excluded at the stages of PRISMA. This process is explained in detail in the following sections.

2.2.1. Inclusion Criteria

The review comprises studies that explore the implications of the digital transition for digital natives and digital immigrants. Research is conducted on aspects such as Digital Natives, Digital Immigrants, Digital Technology, Generation Differences, Information Technology, provoked by the use of social media platforms such as Douyin (TikTok), WeChat, or Facebook/Weibo (chosen based on the widespread acceptance of these platforms by members of society, included in studies), specifically for digital immigrants in contrast to digital natives (individuals born post-digital revolutions) in terms of the results of studies conducted on the psychological effects, which have largely focused on their coping mechanisms, their psychological self-efficacy, mental health distress, anxiety, digital fatigue, or digital tension. In line with the PECO, the research for the current study adopts the subsequent steps of the research process, which are equally essential for the validation, in the form of higher validity or reliability (trustworthiness) of the current study, in addition to the systematic reviews: There are several research methodologies (Quantitative, Qualitative, or Mixed-methods studies) available for empirical studies in the sources in particular: 2020–2025. Studies published between 2000 and 2025 (n=45) were included to balance contemporary evidence with foundational research. While most studies were published from 2020 to 2025, earlier seminal works (2000-2020) were retained based on their theoretical significance and citation impact. Scopus was chosen over Web of Science due to its broader disciplinary coverage, superior indexing of recent literature, and streamlined CSV export functionality, which enhanced data extraction efficiency and search reproducibility. Although this methodology intentionally prioritizes established scholarly journals over 'grey literature,' such a focused approach was essential to maintain the high standard of stringency required for a systematic thematic analysis.

2.2.2 Exclusion Criteria

The review excludes studies focusing on urban or mainstream populations, that is, non-marginalised digital natives and digital immigrants; studies that excluded psychological aspects and were limited to technical elements, marketing strategies, or platform adoption metrics; disclosed and non-disclosed items that did not clearly distinguish generations; editorials, commentaries, and meeting abstracts without data; works published before 2020, unless deemed fundamental.

2.3. Search Strategy

A strategic approach to data delimitation was used, resulting in the selection of 45 scholarly articles from Scopus (2000–2025). In selecting data, there was a bias towards the last five years. This is because technology has changed very fast over the past two decades. Aligning with the review's focus on generational differences in social media fatigue, self-efficacy, and digital stress, this review synthesizes region-specific and global literature on digital natives and digital immigrants (Bittman et al., 2011). Consequently, a standardised Boolean search logic was used to search for the specific and focused as follows, as outlined in Table 1:

Table 1: Search Strategy for Boolean search

Component	Search Terms
Population	"Digital natives" OR "digital immigrants"
Exposure	"Social media fatigue" OR "social media overload" OR "digital stress"
Comparison	"Digital immigrants" OR "digital natives" OR "generational difference"
Outcomes	"Mental health" OR "self-efficacy" OR "anxiety"
Combined Query	("digital stress" OR "social media fatigue" OR "social media overload" OR) AND ("self-efficacy" OR "anxiety" OR "mental health") AND ("digital natives" OR "digital immigrants") AND ("digital immigrants" OR "digital natives" OR "generational difference")

Source: By the author

To make synthesis more manageable systematically, each paper that was finalised for the review was checked systematically.

Table 2: Keywords Co-Occurrences

No	Keywords	Occurrences	Link	TLS
1	Digital Natives	131	82	545
2	Digital Immigrants	130	82	517
3	Digital Technology	12	30	87
4	Generation Differences	9	38	55
5	Information Technology	6	27	49
6	Social media	7	20	34
7	Technostress	3	18	20

Source: Self-made

First, reading the titles and abstracts is the initial step relevant to the keywords. At the last stage, 66 papers were carefully read in their entirety. In the final stage, 45 papers were finalised for synthesis through hand-searching techniques yet manually examining their relevance employing purposive sampling techniques that fulfilled the purpose of the present SLR. Moreover, the current Table shows the keywords' co-occurrences and the authors' links, ranked by total link strength. "Digital natives" ranked first with 545, then "Digital immigrants" with 517, and finally "digital technology" with 87. The keywords of the top two most famous authors were likewise these.

Figure 1: A network analysis of Keywords Co-Occurrence

The authors provided a network visualisation of keyword co-occurrence (Figure 1 and Table 2). This is done to allow the researcher to carefully assess the dimensions and hue of nodes in the mapping. "Digital natives" was a paramount word that was widely used and became the strongest node in the graphical representation. The lines between nodes illustrate keywords that are linked or could appear in the same publication. "Digital natives" had the most links to other terms, with 7 nodes linked to it in the most prominent keywords.

2.4. Selection Process through Screening

At the selection stage, it was very important to finalise the most relevant studies that contain the most relevant content, aligned with the aims, questions, and keywords of the present SLR. For relevance, PECO guidelines were used at the initial stage, and these guidelines are also mentioned in the relevant section. Moreover, the process followed in this SLT was reliable and transparent; PRISMA guidelines were followed, and well-known authors proposed by Page et al. (2021) were included. To finalise the paper, the researcher set pre-defined criteria and followed PRISMA to establish inclusion and exclusion criteria; this is shown in Figure 2 (PRISMA Flowchart) and Table 3. There could be some discrepancies that were resolved through inter-rater agreement (85%), achieved through collaborative discussion with co-authors and reviewers. Hence, the inclusion of the final 45 studies ensured that they contain the most relevant and high-quality papers, except one, which was only available on Google Scholar and not in other indexed research repositories. That was done because the paper was important and most relevant to the RQs and keywords of the SLR.

Table 3: PRISMA Screening and Selection Process

Stage	Number of Records
Total search records identified	873
Duplicates removed	685
Total Records after (title and abstract) screening	685
Records excluded after screening	512
Eligible Full texts	173
Eligible articles assessed for reading Full-Texts	127
For careful reading, Full-Texts	66
Inclusion of final studies/articles for synthesis	45

Source: Adapted and modified from Page et al., 2021

2.5. Data Extraction and Coding

The research's analysis process was finalised based on themes identified through the coding protocol, focusing on specific outcomes, namely anxiety, self-efficacy, and fatigue. Moreover, these studies were delimited further, focusing on the participants' digital immigrants or digital natives, and on the elements included in the study in the pre-collective outcomes. Based on these thematic categorisations, data extraction criteria were made. According to this creator, the data were collected

and managed according to protocols, including the targeted population, the study authors, and the study region. The research extracted these eligible studies through a systematic approach, and their details are mentioned in the relevant section. Additionally, the coding protocol ensured that the study was theoretically relevant to frameworks that previously employed tools of analysis focused on social media platforms, including TikTok (Douyin) and WeChat (WhatsApp). The primary approach was used in this qualitative study for its analytical analysis. However, as primary data, this study includes some quantitative data, which later made it a mixed-methods study. Through explanations of the steps implemented in this study, the researcher's systematic approach ensured that the transparency of this approach was not compromised. The researchers also ensured consistency and comparability in the processes used for this SLR.
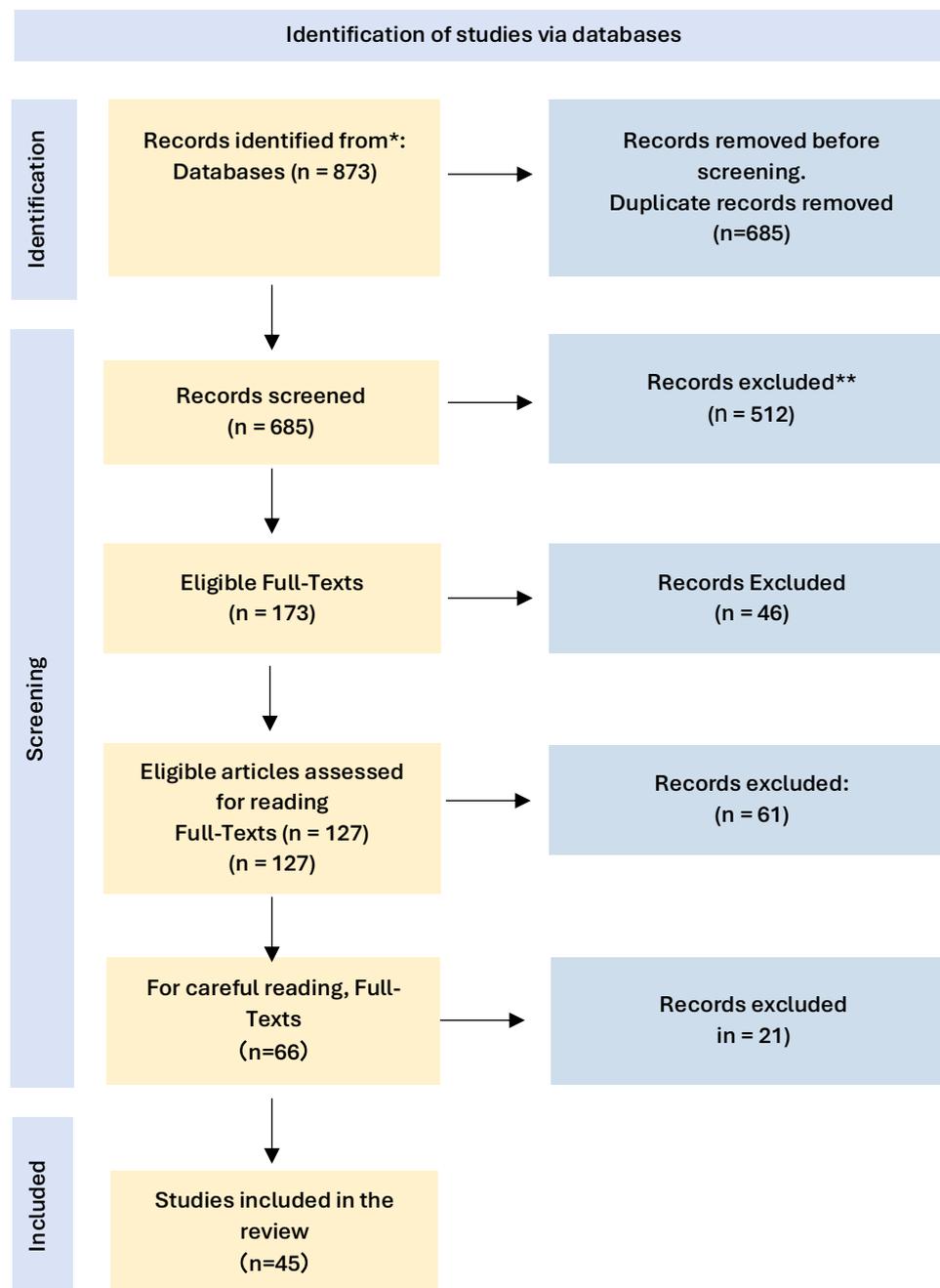
Figure 2: The Prisma Flowchart

2.5.1. Thematic Analysis Process Used in the Study

A six-stage thematic analysis process was followed in this SLR. The process was adapted, modified, or redeveloped for the present context based on the approach proposed by Braun and Clarke (2006+). This proposed approach follows a systematic set of steps to conduct any qualitative study, ensuring the credibility, reliability, and reproducibility of the study and ultimately its trustworthiness. Additionally, this approach offers flexibility, allowing any thematic analysis to adapt it; however, modification is needed in the relevant context, while the core steps might remain the same.

2.5.1.1. Data Familiarisation

Before any operationalisation stage, the main concern is to understand the data. For this, the researchers read the finalised articles as many times as needed to understand the data holistically. In an inductive approach, understanding any data is very

important before coding to ensure the transferability and credibility of the codes and themes. After that, for a deeper understanding of themes, the studies were understood first before initial coding and the thematic matrix. And this understanding led to vivid gaps relevant to content-specific psychological outcomes, such as 'anxiety', 'self-efficacy', 'overload', or 'coping' terminologies.

2.5.1.2.   Generating Initial Codes

Coding was carried out following a familiarisation with an inductive-deductive method. During the initial coding process, through an inductive approach, for the initial themes, the initial coding protocol was advised based on qualitative data. Later, in the final stage of coding, the researcher identified theory-relevant codes through a deductive coding protocol. This two-way coding process was adapted from Aslam, Yusof, and Mahmood (2024), who offer a dual-process coding method called inductive-deductive coding. For final codes, thematic codes are presented in Table 3 in detail.

2.5.1.3.   Themes Searching

During the coding protocol or after its completion, the theme searching process was also initiated. For instance, the theme "Anxiety Patterns" was developed alongside the initial coding, with more relevant group themes emerging, such as "digital anxiety" and "withdrawal symptoms". These concepts later merged with anxiety patterns to form a single theme for this brief project. Furthermore, themes of emotional distress were also identified and integrated. Similarly, the theme "Digital Literacy Challenges" emerged from discussion, aligning with other themes and sub-themes, thereby illustrating connections effectively. This facilitated the creation of clear thematic maps in the next step, which is 'reviewing themes'.

2.5.1.4.   Themes Improvement through Reviewing

In this step, overlapping among the themes was resolved by anchoring them to relevant sub-themes, according to the theoretical definitions explained in Table 3. For example, digital stress seemed to overlap with platform navigation stress, and they merged into a single theme; likewise, Self-Efficacy was in one, i.e., Self-Efficacy. During the revision of themes at the deductive stage, some names were refined as follows by cross-checking with the help of inter-coder reliability coders, ensuring reliability and credibility.

2.5.1.5.   Finalising the Themes in line with Defining and Naming Themes

In line with the psychological outcomes, the physical barriers were very important to include for the synthesis and analysis stage. Their connection with each other and with research questions was made to add analytical depth to this systematic literature review (SLR). For instance, two themes can be presented here due to their significant connection: decreased digital fatigue was associated with increased anxiety among users, according to the study included for synthesis, which was later linked to social interaction times. For example, in content filtration, digital immigrants may take more time, leading to increased digital anxiety and fatigue; these factors were merged and defined under the theme, "Coping Strategies." Likewise, more themes were defined and named using these techniques in Table 3 in finalised form.

2.5.1.6.   Writing up the Results

Overall presentation and clarity were maintained. The theories defined in the theoretical framework were interpreted and linked with the results, such as Bandura's (1997) Self-Efficacy Theory and Cognitive Load Theory, which were analytically explained in the results writing with more depth for more clarity. Direct quotations from qualitative data were included to defend quantitative frequencies and support each theme with evidence (see Table 4). The research questions were addressed by weaving the themes into a coherent narrative. The clarity of the information presented was enhanced by visually representing the interrelations between themes through the creation of thematic tables and conceptual diagrams. These tools ensure that the reporting is both accessible and comprehensive.

Table 4: Themes for Synthesis, Definitions of Themes, and Extracted Codes Examples

Theme	Definition	Example Extracted Codes
Coping Strategies	`Fatigue and overload from social media are managed through techniques adopted by users. `	"Social media detox", "Time management", "Offline socialising" (Hamilton, Dreier & Boyd, 2023; Tran & Chen, 2024)
Anxiety Patterns	Among users, exposure to social media triggers psychological distress.	"Comparison-induced anxiety", "Fear of missing out", "Withdrawal symptoms" (Ndasauka & Ndasauka, 2024; Hamilton et al., 2023)
Digital Literacy Challenges	`Digital platforms: variations in users' ability to navigate and understand. `	"Difficulty accessing services", "Low confidence in app use", "Language barrier stress" (Chen, Lo & Lin, 2024; Wrede et al., 2021; Van Dujin et al., 2025).
Self-efficacy and Digital Stress	Users' confidence in their ability to handle digital tasks and the related emotional effects.	"Low self-efficacy, "Platform navigation stress, "Helplessness in tech use" (Jia et al., 2024; Sun et al., 2024; Qi & Yang, 2024)
Infrastructure Barriers	Environmental and structural factors impede effective social media use.	"Rural 4G unavailability", "Weak internet signals", "Device sharing in families" (Ndasauka & Ndasauka, 2024; Wrede et al., 2021)

Source: (Chen et al., 2024; Hamilton et al., 2023; Jia et al., 2024; Ndasauka & Ndasauka, 2024; Qi & Yang, 2024; Sun et al., 2024; Tran & Chen, 2024; Wrede et al., 2021)

The thematic analysis identified five broad themes that encompass the psychological and behavioural experiences of digital natives and digital immigrants as they engage with social media platforms. These themes, Coping Strategies, Anxiety Patterns, Digital Literacy Challenges, Self-efficacy and Digital Stress, and Infrastructure Barriers, create an organisational framework for synthesising findings across different generational cohorts. Social media overload is interpreted and synthesised in line with the experiences of digital natives and digital immigrants. Moreover, their interconnected effects are interpreted through a systematic, structured synthesis, resulting in a comparative analysis. These links and comparisons are later critically

and theoretically discussed in the context of generation-specific infrastructural issues and the main aims, which were to synthesise universal patterns of psychological outcomes resulting from digital engagement across both generations.

2.6. Quality Assessment

The robustness and credibility of the synthesized studies were ensured through the assessment of methodological quality for each study, following five key criteria: appropriateness of the research question, clarity and coherence of the methodological design, validity of data collection procedures, rigor of data analysis, and transparency in ethical reporting. The final synthesis includes studies retained based on their quality classification in peer-reviewed journals and demonstrated moderate to high methodological quality, derived from rigorously conducted, peer-reviewed research, thereby enhancing the overall validity of the review findings.

3.   Results

This SLR synthesises the comparative social media experiences of digital users, specifically highlighting how digital natives and immigrants manage psychological stress stemming from infrastructural and technological challenges. The results, based on a systematic review of 45 studies, objectively report distinct outcomes, such as the prevalence of Fear of Missing Out (FOMO) among digital natives and navigation-triggered anxiety among digital immigrants.

3.1. Key Findings by Theme

3.1.1. Theme 1: Cognitive Load and Fatigue

Digital natives often rely on disengagement, routine setting, and information filtering, without seeking family assistance, or experience lower stress and higher resilience with technological fluency (Tran & Chen, 2024), resulting in moderate digital fatigue, emotional withdrawal, and a shift towards digital minimalism (Hamilton et al., 2023), in a result, they seem fitting themselves into supportive peer ecosystem coping overload (Folabit et al., 2025; Li et al., 2024). Conversely, digital immigrants exhibit inflexible digital practices, such as avoiding coping strategies, seeking assistance from family or colleagues, and avoiding digital complexities (Li, Brar, & Roihan, 2021; Wrede et al., 2021).

Emotional burnout and social comparison are prevalent among digital natives, who report experiencing FOMO (fear of missing out), social comparison stress, and emotional fatigue, particularly among young adults who struggle with conflicting traditional values (Ndasauka & Ndasauka, 2024). Moreover, a paradoxical stress pattern also causes emotional exhaustion due to misinformation expostulations, causing anxiety at higher levels (Sun et al., 2024). Low confidence in digital navigation, causing digital anxiety, perceived inadequacy in online interactions, and information overload characterise digital immigrants, which appear to be more prevalent among older users (Chen et al., 2024; Makri et al., 2021; Wrede et al., 2021).

According to Qi and Yang (2024), young individuals (digital immigrants) tend to have higher self-efficacy; yet some of them, due to multitasking, experience algorithmic manipulation, fatigue, and content manipulation. However, some also experience fatigue from multitasking and literacy-related stress, which can lead to content addiction and the manipulation of algorithms (Qi & Yang, 2024). On the other hand, digital immigrants who have recently shifted to digital social media and started using entertainment content-based applications that are available alongside their financial (WeChat) and business applications, such as TikTok, often find it difficult to understand these apps at an initial level. In the later stages, they also struggle to understand digital natives' content, which may include recent slang. This has happened often due to generational gaps and more specifically among the digital immigrants, which may lead them towards chronic digital psychological issues (Chen et al., 2024; Wrede et al., 2021), and it can increase more in those who are unable to receive any social support in line with the technological understanding and infrastructural issues (Jia et al., 2024; Sun et al., 2024; Tran & Chen, 2024; Qi & Yang, 2024).

3.1.2. Infrastructure Barriers

According to a study by Wrede et al. (2021), delays in communication and interruptions caused by inefficient information flow, unstable internet coverage, and limited infrastructure play a role in rural and pastoral areas. Thereby, worsening overload (Ndasauka & Ndasauka, 2024). In this context, self-efficacy, anxiety, and fatigue are driven by social media overload across generations, as revealed by a synthesis of studies among digital natives and digital immigrants. These behavioural and psychological differences are presented in Table 6.

Due to the rapid pace of digital interaction, the synthesis suggests that cognitive load, technical problems, and the perception that these are the main sources of anxiety among digital immigrants are perceived as incessant by many. These technical problems were caused by avoidance and less help (coping style), cognitive load and app complexity (anxiety trigger), low training and frustration (digital self-efficacy), confusion and disengagement (fatigue patterns). On the other hand, the flow of social media feeds and excessive usage, social comparison pressures, and FOMO cause digital natives to experience heightened anxiety. Frustration and helplessness in using technology among digital immigrants with minimal social support often reflect a lack of self-efficacy. Self-sufficiency and self-efficacy are higher among digital natives. Nevertheless, in many cases, these symptoms, in the form of fatigue and cognitive overload, reflect a grey area while engaging with digital tools and social media

Table 5: Summary of Studies Included in the Systematic Literature Review

No.	Study	Region / Sample	Population	Method	Platforms	Psychological Outcomes	Key Findings
1	Parekh & Sharma (2026)	India	280 University students	Cross-sectional survey; Correlational analysis	eHealth Literacy Scale (eHEALS); GAD-7	Anxiety, Self-efficacy	Self-efficacy and self-care habits significantly reduce anxiety, while digital health literacy shows no significant correlation with anxiety levels.
2	Van Duijn et al. (2025)	Netherlands	First-line care professionals	Qualitative Case Study; Decentered approach	Digital Collaboration Platforms (DPs)	Socio-political stress; Professional resistance	Platforms fail when socio-political dynamics are ignored, as technical fixes cannot resolve underlying collaborative conflicts.
3	Nosrati & Kim (2025)	China	830 Hotel employees	Quantitative survey; Moderated mediation	Smartphones; social media; Work Email	Technostress, Nomophobia, Mental health	Workplace tele pressure and technostress lead to service failure, with the effect significantly worsened by nomophobia and poor mental health.
4	Choi et al. (2024)	Global	40 studies, Individuals with mild mental health issues	Systematic Literature Review (SLR)	Smartphone sensors (GPS, Screen time, Accelerometers)	Stress, Anxiety, Mild Depression	Digital phenotyping via smartphone sensors is effective for identifying behavioral patterns associated with early-stage mental health issues.
5	Gellmers & Yan (2023)	Global	33 studies- Employees across sectors	Systematic Literature Review (SLR)	Non-work ICT use (social media at work)	Recovery, Workplace Well-being	Digital leisure engagement at work can facilitate employee recovery and improve well-being if it does not interfere with core tasks.
6	Li et al. (2021)	Global	25 studies of Indigenous populations	Systematic Literature Review (SLR)	Social media; Mobile apps; Educational Software	Empowerment; Socio-economic stress	Digital technologies support language and literacy skills, helping to mitigate the inter-generational impacts of colonization.
7	Rademaker et al. (2025).	Global	44 Articles Leaders and followers	Systematic Literature Review (SLR)	Information and Communication Tech (ICT)	Technostress, Work Motivation	Empowering leadership decreases technostress, while high availability expectations and surveillance significantly increase it.
8	Vlachopoulos & Makri (2017)	Global	127 papers - Higher Education students	Systematic Literature Review (SLR)	Digital technology; Virtual Simulations	Cognitive, Affective, and Behavioral outcomes	Games and simulations consistently achieve specific learning objectives and have a positive impact on student performance in higher education.
9	Makri et al. (2021).	Global	21-studies "Online learners "	Systematic Literature Review (SLR)	Digital Educational Escape Rooms (DEERs)	Engagement, Motivation, Gamefic experience	DEERs foster high engagement and positive learning outcomes; they are emerging pedagogical tools for online education.
10	Degner et al. (2022)	Global	26-Visitors of informal learning places	Systematic Literature Review (SLR)	Digital media (AR, VR, Mobile guides)	Cognitive and Affective learning outcomes	Digital media support learning processes in informal settings by providing cognitive scaffolding and increasing engagement.
11	Mumin (2021)	Malaysia	549-Higher education students	Quantitative survey	Dark Triad Dirty Dozen; Perceived Stress Scale	Stress, Anxiety	Dark triad personality traits (Narcissism, Psychopathy) can act as a buffer against perceived stress among digital natives.
12	Vergara-Rodríguez et al. (2022)	Spain	1,471- University professors	Quantitative analysis	Digital Learning Environments (DLE)	Professional adaptation; Resilience	Professors' age and prior digital competence significantly influence their successful adaptation to online teaching during the pandemic.

No.	Study	Region / Sample	Population	Method	Platforms	Psychological Outcomes	Key Findings
13	Franco (2013)	Brazil	1-Public high school students group	Case study; Narrative analysis	Digital platforms; Internet resources	Learning experiences; Self-organization	The learning systems of digital natives are self-organizing and chaotic; traditional pedagogical practices fail to meet their digital needs.
14	Muchsini & Siswandari (2020)	Indonesia / 152 students	University students (Digital Natives)	Quantitative; Simple regression	Hofstede's Cultural Dimensions; Student-Life Stress Inventory	Academic Stress	Classroom cultural values, such as Power Distance and Individualism, significantly influence the academic stress of digital natives.
15	Betaubun & Anggawirya (2022)	Indonesia / 228 students	Papuan EFL students	Quantitative survey	Digital concepts and tools	Understanding of digital concepts	The understanding of digital concepts among indigenous Papuan students is below average, regardless of indigenous status.
16	Kassymova et al. (2023).	Kazakhstan	Generation Z students	Theoretical & Principal analysis	Cognitive Behavioral Therapy (CBT); Counseling	Stressful anxiety, social isolation	CBT is recommended as an effective method to reduce stress and improve the mental health of Gen Z students isolated by digital use
17	Samala et al. (2024).	Global	32 empirical articles "Digital Native Learners"	SLR	Social media (TikTok, YouTube, WhatsApp, Instagram, etc.)	Potential for enhanced collaborative motivation but also risks of digital addiction and anxiety.	Social media serves as a catalyst for collaborative learning but requires formal pedagogical integration.
18	Xia et al. (2024).	China	324-Generation Z (Users of digital exhibitions)	S-O-R framework; Structural Equation Modeling (SEM).	Online Digital Art Exhibitions / VR-based Web Platforms	Reduced stress and anxiety; enhanced psychological restoration through aesthetic experiences.	High-quality website aesthetics in digital galleries significantly improve mental well-being and place attachment
19	Shaleha & Roque (2024)	USA	299-Multigenerational (Gen X, Millennials, Gen Z)	Mobile monitoring of cognitive change (M2C2).	M2C2 (Mobile Monitoring of Cognitive Change) App	Increased distraction costs and cognitive load linked to perceived stress.	Gen Z is highly susceptible to digital distraction, which is heavily influenced by subjective age and stress levels.
20	Vieira & Ribeiro (2022)	Portugal	1009-Higher Education Students (Ages 16–24)	Online survey	Zoom, MS Teams, Moodle (LMS)	Feelings of social isolation, loneliness, and fatigue from "Zoom graduation".	The "digital native" identity shifted toward a sense of isolation, highlighting that tech fluency does not prevent social distress
21	Cooper (2023)	USA	University Mass Comm. Dept.	Case study of a mass communication department		Technostress (demand-side) vs. Techno-enrichment (resource-side motivation)	Reducing Technostress
22	Kulikowski et al. (2022)	Poland/Czech Rep.	University students	Resources (JD-R) theory application.	Remote Learning IT (VLEs, Online Collaboration Tools)	Academic Stress (AS) influenced by cultural pressure.	IT acts as both a "demand" causing strain and a "resource" providing motivation and enrichment.
23	Hammaren et al. (2022)	Finland	Healthcare professionals	Scoping review	Healthcare Digital Platforms (Electronic Health Records, eHealth tools)	Reduced technostress in older workers through peer support.	Intergenerational mentoring effectively bridges digital divides and reduces work-related stress for older professionals

No.	Study	Region / Sample	Population	Method	Platforms	Psychological Outcomes	Key Findings
24	Vergara-Rodríguez et al. (2022)	Indonesia	152 University students	Quantitative study	Digital Learning Platforms / Classroom Tech	Impact of gaming on concentration and literacy-related stress	Cultural values (Power Distance and Collectivism) are significant predictors of academic stress in digital native generations.
25	Hamilton et al. (2023).	Adolescents (Global/Western context)	Digital Natives	Qualitative	Social media (general)	Emotional fatigue, FOMO, withdrawal	Natives rely on peer ecosystems, digital minimalism, routine-setting, moderate fatigue, but high resilience.
26	Tran & Chen (2024)	Asia, rural/urban comparison	Digital Immigrants/ Digital Natives	Quantitative	TikTok/Douyin, WeChat	Cognitive overload, self-efficacy, and digital fatigue	Immigrants show inflexible practices & low self-efficacy; natives show resilience but still experience overload.
27	Qi & Yang (2024)	Adolescents (China)	Digital Natives	Mixed	Douyin, WeChat	Literacy-related stress, self-efficacy	Digital literacy predicts self-efficacy; multitasking fatigue leads to algorithmic manipulation anxiety.
28	Wrede et al. (2021).	Rural digital immigrants	Digital Immigrants	Qualitative	WeChat & phone apps	Anxiety, low confidence, digital frustration	Immigrants struggle with basic functions, rely heavily on others, and have high infrastructure-related stress.
29	Folabit et al. (2025).	Students (Africa)	Digital Natives	Systematic Review	Educational digital tools	Well-being, anxiety	Increased belonging through technology; passive disengagement is linked with avoiding overload.
30	Ndasauka & Ndasauka (2024)	Youth (Asia/Africa)	Digital Natives	Qualitative	Social media (general)	FOMO, comparison anxiety, and emotional distress	Natives face high social pressure, comparison-induced anxiety, and emotional exhaustion.
31	Sun et al. (2024)	China	Both	Quantitative	WeChat/Douyin	Misinformation anxiety, burnout	Overexposure to misinformation increases burnout; immigrants benefit more from support mechanisms.
32	Chakraborty et al. (2025).	Asia	Both	Mixed	Social media	Cognitive overload anxiety	Information shock leads to emotional burnout in both generations.
33	Chen et al. (2024).	China	Digital Immigrants	Quantitative	WeChat	Low tech confidence, navigation stress	Immigrants show low literacy, high anxiety, and reliance on support; infrastructural gaps worsen stress.
34	Li et al. (2024).	China	Digital Natives	Quantitative	Social media	Multitasking overload	Natives experience overload due to constant task-switching and algorithmic engagement.
35	Jia et al. (2024).	China	Digital Immigrants	Quantitative	Social media	Low self-efficacy, loneliness, anxiety	Social support increases self-efficacy and reduces stress; mentoring is effective for immigrants.
36	Ahn et al., 2014	South Korea / National survey sample	Adolescents & young adults	Cross-sectional survey analysis	Social networking sites (general)	Depression, loneliness	Higher SNS use associated with increased depression and loneliness; social comparison mediated effects.
37	Makri et al., 2021	Europe / University-based sample	University students	Mixed methods (survey + usage data)	Facebook, Instagram	Anxiety, stress	Problematic social media use correlated with higher anxiety and perceived stress; academic pressure intensified effects.
38	Choi et al., (2025)	New Zealand & USA / 215 participants	Undergraduate students at Dartmouth College	Multimodal study Models (GLMs)	Smartphone sensor categories (27 total), including mobility (GPS), audio, and phone usage	Anxiety and depression symptoms, and State Self-Esteem (SSE)	Smartphone passive sensing reliably detects behavioral patterns Routine variability acts as a digital marker; stable social patterns and stable phone usage correlate with better mental health

No.	Study	Region / Sample	Population	Method	Platforms	Psychological Outcomes	Key Findings
39	Li, Brar, & Roihan (2021)	Australia, Canada, USA, Malaysia, Taiwan, and Latin America (25 studies)	Indigenous people, primarily children and youth	Systematic Literature Review of empirical studies	Social media, mobile technology, digital storytelling, and literacy software (ABRA)	Enhanced self-esteem, motivation, and empowerment of Indigenous identity	Digital technology supports literacy/language skills while honoring cultural knowledge and fostering community visibility
40	Ololube, Kpolovie, Amaele, Amanchukwu, & Briggs (2013)	Nigeria (one private and one public university)	191 university students and faculty members	Quantitative (50-item questionnaire and 5-item demographic variable)	Computer systems and university Information Systems (IT/IS)	Identification of differences in perceived academic effectiveness and technology adoption	Significant differences exist between student and faculty IT/IS usage; students are "digital natives" while faculty are often "immigrants"
41	Prensky (2001)	USA (Theoretical / Commentary)	K-12 and College students	Theoretical / Qualitative analysis of cognitive shifts	Video games, email, the Internet, and digital cell phones	Changes in cognitive processing, attention, and mental flexibility	Students' brains have physically changed due to digital immersion, requiring new, fast-paced, and parallel instructional methods
42	Sharipudin, Fam, & Gazley (2020)	Malaysia (Emerging economy context)	Generational Cohorts: Boomers (older) and Gen Y (younger)	Quantitative: Self-administered survey (370 usable responses); Generational Cohort Theory	Traditional Media (Radio, TV, Print) vs. Digital Media (social media, Internet)	Media Self-Congruity	Gen Y aligns psychologically with digital platforms, while Boomers remain anchored to traditional media.
43	Vlachopoulos & Makri (2017)	Global / Systematic Literature Review	Higher education students and professionals	Qualitative systematic review; coding and synthesizing results	Digital games, simulations, and virtual environments	Positive impacts on cognitive, behavioral, and affective learning outcomes	Games and simulations have a generally positive impact on achieving learning goals in higher education.
44	Stickel (2017)	UK / 236 responses	Adults (Digital Natives born ≥1985 vs. Digital Immigrants)	Adaptive online survey with binary generational age analysis	Social networking sites (Facebook, LinkedIn)	Digital immigrants reported higher psychological stress levels in victimizations.	Generational age and technological familiarity determine interpretations of online victimization.
45	Watson & Pecchioni (2011)	USA / Case study	College students in a health communication course	Case study assessing digital media implementation	Digital media for documentaries	Enhanced group collaboration, critical thinking, and media literacy	Engaging students with digital media and course content improves learning experiences

Source: Scopus/WoS Index (2000-2025)

Table 6: Generational Differences and Psychological Outcomes

Variable	Digital Natives	Digital Immigrants
Coping Style	Apps filtering, time-budgeting.	Asking family for help, avoidance
Anxiety Trigger	fear of missing out, social comparison	App complexity, cognitive load,
Digital Self-efficacy	High (tech comfort, confidence)	Low (need training, frustration)
Fatigue Patterns	Task-switching overload	Disengagement, confusion,
Infrastructure Challenge	High in remote areas, Low in cities	Rural settings/very high in pastoral

Sources: (Chen et al., 2024; Folabit et al., 2025; Hamilton et al., 2023; Jia et al., 2024; Ndasauka & Ndasauka, 2024; Qi & Yang, 2024; Sun et al., 2024; Tran & Chen, 2024; Wrede et al., 2021)
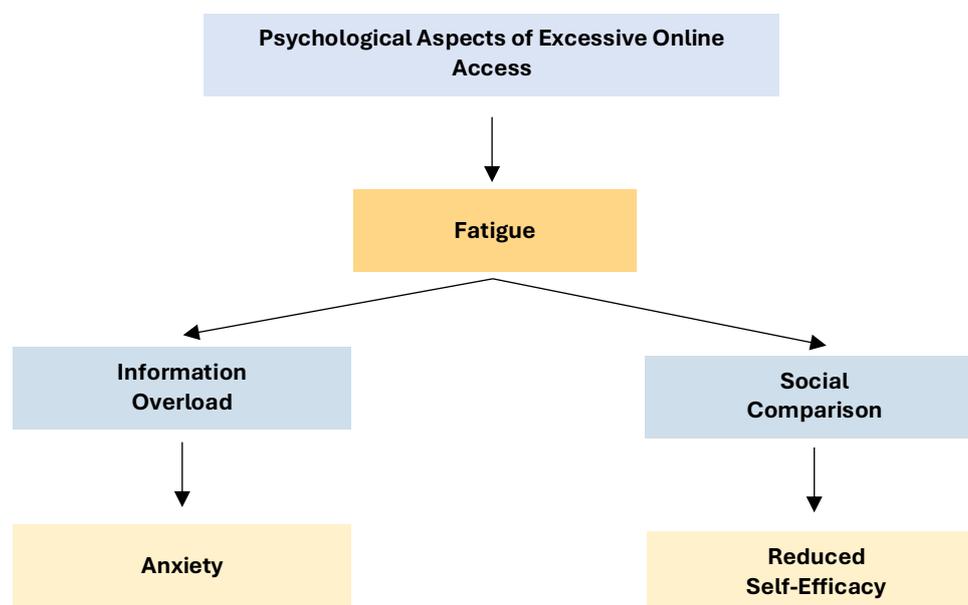
Figure 3: Psychological Aspects of Excessive Online Access (Adapted and synthesised from prior empirical research and theoretical frameworks on social media fatigue (Tran & Chen, 2024; Qi & Yang, 2024) and social comparison–self-efficacy relationships (Hamilton et al., 2023; Jia et al., 2024).

3.1.3. Theme 2: Social Comparison and Emotional Dysregulation

Well-timed interventions, including internet content filtering, time-planning modules for time use, and behavioural nudges to manage screen time on the app, offer practical solutions without requiring total withdrawal. Psychological fatigue and secure usage would be promoted by employing such approaches (Dhir et al., 2018; Hamilton et al., 2023; Qi & Yang, 2024). While younger natives generally focus more on emotional regulation and are more mindful of their digital consumption than infrequent users of these systems, they neither have access to nor issues with navigating the interface. Nevertheless, they experience fatigue related to information overload and other phenomena, such as content shock and consumption of social e-profiles.

Due to the adaptability challenges faced positively by digital natives, this generational gap reinforces Bandura's (1997) core idea, which especially explains that digitally saturated environments are often influenced by the fact that individuals with higher self-efficacy, who are more likely digital natives in this case, experience emotional dysregulation due to compulsive social media use, social comparison, and FOMO-related stress (Ndasauka & Ndasauka, 2024; Tran & Chen, 2024) aligning with the Uses and Gratifications Theory (see Katz et al., 1973 for more details). In contrast, digital immigrants face these psychological strains due to infrastructural issues and a lack of social support in digital vocabulary, specifically relevant to the usage of digital apps. Infrastructural issues are more common in rural areas, where large-scale digital immigrants who perform administrative duties lack proper access, particularly to essential digital apps (Wrede et al., 2021). Ultimately, these infrastructural issues cause them to struggle with technology, which leads to psychological distress. These stress reactions can be linked to cognitive overload caused by technological overload, which results from users' inability to work with technology. These facts support the principles of Cognitive Load Theory (Chakraborty et al., 2025; Prensky, 2001; Sweller, 1988; Vlachopoulos & Makri, 2017; Wang, Gong, Xiao, Wu, & Zhang, 2024). On the other hand, these psychological issues among digital natives stem from excessive use, yet they have high digital confidence, whereas digital immigrants often have low digital confidence due to technological limitations. This SLR research contributes to the expanding body of work emphasising culturally aware and age-sensitive strategies for digital inclusion (Folabi et al., 2025; Qi & Yang, 2024).

3.1.4. Theme 3: Coping Strategies and Digital Literacy

According to Wrede et al. (2021), digital transformation can occur through sustained investments, coordinated support systems for rural connectivity, and broader advocacy to improve digital infrastructure, specifically for digital immigrants. Because solving the individual cases for stress-level solutions may seem inadequate, like for digital immigrants, a shared sense of digital-strained experience. 4G networks' availability and limited bandwidth are major infrastructural challenges that significantly affect users' digital experiences, specifically in rural areas, which require cultural, environmental, and infrastructural

intervention for digital well-being across generations. According to the studies included in this review, due to entrenched cultural values, levels of digital literacy also vary across generations in China, as evidenced by studies focusing on variables such as anxiety, self-efficacy, social media fatigue (SMF), and social media overload (SMO). These generational differences in cultural norms and digital competencies are the focus of the present review in the context of managing social media overload.

Integrated with Cognitive Load Theory, which is linked to cognitive overload, Bandura's (1997) Self-Efficacy Theory is particularly useful for explaining fatigue among older users, especially when linguistic limitations and poor connectivity cause users' processing capacity to exceed available resources and that was the aim of this revies that how users' fatigue would be reduced following these studies and identify mechanisms to effectively promote digital adaptation.

The process of developing context-sensitive coping mechanisms could help to reinforce digital literacy that would foster self-efficacy, playing a significant role (Qi & Yang, 2024). During the synthesis of the selected study, digital confidence support through cross-generational training integrating with coping strategies is used by digital natives and digital immigrants as a strategic intervention mechanism. These interventions appear to address psychological stressors arising from social media overload during digital transitions among digital natives and immigrants (see Table 7 for more details).

Table 7: Coping Interventions and Proposed Strategies

Intervention Type	Description	Supported Studies
Self-regulation training	To reduce fatigue, it is crucial to encourage users to manage their time online effectively, set limits, and reduce passive scrolling.	Hamilton et al. (2023); Qi & Yang (2024)
Misinformation literacy	Evaluation of online content should be taught to youth and rural users to prevent cognitive biases critically.	Sun et al. (2024); Qi & Yang (2024)
Digital confidence support	Reducing anxiety in digital immigrants and enhancing platform navigation skills through institutional and peer support.	Chen et al. (2024); Wrede et al. (2021)
Control perception workshops	Customising digital environments by reinforcing users' perceived ability to filter, mute, and empower themselves.	Tran & Chen (2024)
Cultural and peer-based support	To reduce alienation and digital stress, it is essential to leverage social networks and identity groups based on ethnicity or generation.	Ndasauka & Ndasauka (2024); Folabit et al. (2025)
Cross-generational training	Creating programs where digital immigrants assist digital natives to bridge the skill gap.	Jia et al. (2024)

Sources: (Chen et al., 2024; Folabit et al., 2025; Hamilton et al., 2023; Jia et al., 2024; Ndasauka & Ndasauka, 2024; Qi & Yang, 2024; Sun et al., 2024; Tran & Chen, 2024; Wrede et al., 2021)

Chen et al. (2024) and Wrede et al. (2021) argue that engagement rather than resistance is the key to promoting digital inclusion in rural and marginalized communities through what can be described as confidence-building measures. The main concern for digital immigrants is the digital anxiety experienced primarily by older adults. This challenge can be mitigated through practical learning experiences with proper guidance and targeted interventions, especially via peer-support networks and language-aware software designed for indigenous users, integrated into visual learning materials to foster external assistance in digital spaces.

Psychological approaches are important for users, such as misinformation literacy programs, health support in peer-based, resilience training, yet the digital environment must be indigenous based on cultural values (Folabit et al., 2025; Sun et al., 2024). This cultural consistency and digital lifestyle among digital natives ultimately determine how they align these approaches to foster their sense of adaptability, requiring coping strategies for digital stress management based on integrative technology mentorship (Jia et al., 2024), as a promising solution. Moreover, for digital immigrants, their close family members can help to monitor their ongoing skills development, which may also promote intergenerational exchange, fostering trust relations to tackle dual-focus challenges mentioned in Table 7. These culturally embedded existing gaps seem aligned with the theoretical perspective of Bandura's (1997) Self-Efficacy Theory, which emphasises differences in coping mechanisms and psychological strain. Localised modules and digital stress management, which may include culturally responsive strategies, are focused on a limited number of studies within the framework of integrational monitoring and native dialects, systematically emphasising policy-oriented interventions and longitudinal ethnographic approaches to address these gaps.

Specifically, for marginalised and mobile communities, future research and policy efforts should focus on technological adaptability and cultural sensitivity, fostering studies on digital resilience. Rural and nomadic regions need assurance of effective inclusion through digital connectivity, which should be more advanced to prevent the exacerbation of generational and psychological inequalities. Overall, the synthesis of this review emphasises coping strategies and intervention models in the studies. It finds that participatory and longitudinal studies are limited, especially those most relevant to investigating rural infrastructure development, app customisation, or integrative mentoring, which could help improve the digital stress model or future practical applications. This requires more effective digital literacy and mental health programs to avoid deepening disparities caused by infrastructural shortcomings, promoting inclusive and sustainable digital well-being without compromising mental health.

4. Discussion

Digital natives and digital immigrants are affected by language barriers, limitations, and ingrained cultural values, which reveal perceived social media overload that significantly influences self-efficacy, fatigue, and anxiety (see Figure 3). They interact with digital and social media apps within their unique cultural contexts, with varying digital skills.

A review of the literature across the 45 refined studies makes a clear generational divide in the psychological consequences of SMO. Regarding digital natives, the literature identifies emotional dysregulation and anxiety due to social comparison as primary stressors. Specifically, studies such as Ndasauka & Ndasauka (2024) and Hamilton et al. (2023) notice that while natives exhibit high resilience through digital minimalism, natives are highly prone to 'Fear of Missing Out' and emotional exhaustion. However, digital immigrants have different psychological profiles, characterised by 'navigation frustration',

significantly lower self-efficacy, and increased levels of digital anxiety and social isolation. Synthesising findings from Chen et al. (2024) and Wrede et al. (2021), the basis of SMF among natives is believed to be compulsive engagement, whereas among immigrants, it is cognitive load from navigating unfamiliar technological infrastructures.

4.1. Comparative Analysis Across Generations

Due to receiving less digital support rather than being mostly relevant to content challenges itself, digital immigrants who adopted digital media tools and social media apps later in life often experience psychological stress. This stress is higher due to the complexities and functionalities of modern technologies, which are associated with lower self-efficacy, increased frustration, and greater cognitive overload. According to Jia et al. (2024) and Ndasauka and Ndasauka (2024), this psychological stress may lead to withdrawal or complete avoidance of social media use. They are more susceptible to anxiety due to limited coping skills and less ability to handle stress effectively compared to digital natives. However, digital natives tend to display stronger problem-solving skills and behavioral flexibility, feeling more confident than digital immigrants. These findings align with Bandura's (1997) Self-Efficacy Theory, which posits that individuals with higher self-efficacy are more persistent, resilient, and able to adopt adaptive coping strategies when facing challenges.

By contrast, younger generations, digital natives, seem confident engaging in multitasking in social interactions, demonstrating relatively high self-efficacy in managing multiple digital devices. However, it is also important to note that excessive usage and constant connectivity may lead to psychological stress, and rapid content consumption can generate anxiety. Therefore, digital natives experience emotional exhaustion, yet they may exhibit reduced anxiety (in contrast with digital immigrants). However, digital natives may be more proficient at managing technology due to the overwhelming nature of digital engagement (Qi & Yang, 2024; Sun et al., 2024). Hence, individuals with greater self-efficacy may adapt more effectively to a stressful environment, thereby reinforcing Bandura's (1997) central argument, particularly in digitally saturated contexts.

Despite being technologically proficient, the current review reveals that digital natives also experience emotional dysregulation due to excessive social media use, leading to fear of missing out (FOMO) and excessive social comparison. According to Tran and Chen (2024), young social media users experience fatigue from constant peer pressure and the pressure to curate identities through self-presentation on digital platforms. However, they may not face technological challenges. Such patterns align with the Uses and Gratifications Theory, which asserts that users engage with digital platforms not only for practical benefits but also to satisfy emotional and social needs.

4.2. Cultural and Environmental Determinants

Due to a lack of cultural depth in modern life, ethnic and cultural communities may find it difficult to seek help because of complex social hierarchies (Kulikowski et al., 2022). Even though younger members of these communities might seem more skilled in educational technology (Vlachopoulos & Makri, 2017) and digital media (Watson & Pecchioni, 2011), they may also face challenges stemming from these cultural and social hierarchies. Language barriers are also a problem for both digital immigrants and digital natives when apps are only available in their non-native languages. In environmental challenges, poor internet connectivity may also occur in rural areas due to worsened internet infrastructure.

Younger users living in these rural areas may also face challenges adapting to social media cultural norms, yet they often try to navigate their traditional and cultural norms. As a result, they may experience identity crises, finding social media confusing and fragmented (Chen et al., 2024; Wrede et al., 2021). Adaptation processes for both digital immigrants and digital natives appear influenced by cultural and environmental factors, despite generational differences (Degner et al., 2021; Gellmers & Yan, 2023; Vieira & Ribeiro, 2022).

4.3. Theoretical Integration

According to Bandura's (1997) Self-Efficacy Theory and Cognitive Load Theory (Sweller, 1988; Wang et al., 2024), fatigue can be observed among digital immigrants and older users, especially those who are less fluent in digital and social media use (see Figure 4). When digital information increases and exceeds the user's mental capacity, it can affect cognitive load, often due to withdrawal or disconnection from a constant process, such as weak internet connectivity and language challenges (Wrede et al., 2021). Promoting equitable user engagement and alleviating digital fatigue are important considerations in designing interventions to address these constraints.
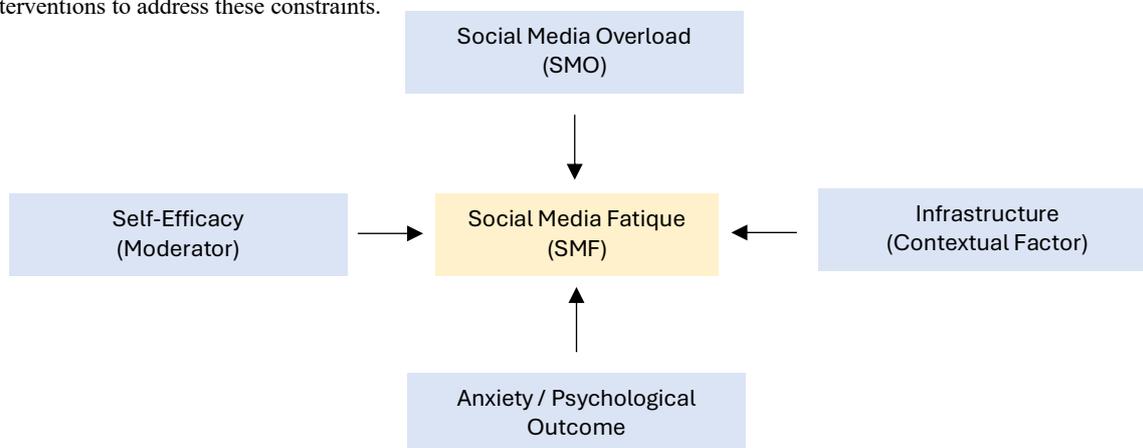
Figure 4: Conceptual Model of Digital Stress (Adapted from prior models of social media fatigue (Dhir et al., 2018) and informed by empirical findings from Tran and Chen (2024), Qi and Yang (2024), Jia et al. (2024), Sun et al. (2024), and Wrede et al. (2021).

In digital engagement, motivational differences also align with the principles of The Uses and Gratifications Theory (Katz et al., 1973). For instance, the motivations of digital natives include identity expression, social approval, and enjoyment (Tran & Chen, 2024). On the other hand, digital immigrants utilize these platforms for services, information access, communication, or instrumental purposes (Folabit et al., 2025; Makri et al., 2021). Both generations' cultural and psychological needs may differ in the context of digital overload, and their motivations may also be distinctive, influencing how they experience and respond to emotional stress.

4.4. Research Gaps and Future Directions

Despite intensified research interest, there are multiple gaps in the context of digital inequality. First of all, there exist gaps in regional data regarding digital inequality. The focus of existing research is limited to urban or semi-urban regions or populations, and research on rural populations remains sparse. The point is that the infrastructure and cultural limitations in rural regions, particularly those residing in nomadic communities or indigenous societies, may not be fully comprehensible when the focus is solely on digital inequality. This factor disrupts understanding of digital stress in the mentioned regions or populations, due to inherent infrastructure and cultural limitations that differ from those in urban populations. The intervention methods may be proposed only by the research group at a broader level; however, they emphasize cultural responsiveness, with methods limited to minimal effectiveness and regional training modules, coupled with comprehensive mentoring programs, to attempt to reduce digital stress. This was limited by cultural and indigenous factors. Collectiveness in digital experience and the corresponding mechanisms were not specifically examined at any point in the research, particularly regarding how cultural background interacts with technological exposure, and the role of age and ethnicity. Lastly, there are gaps in longitudinal research on digital inequality issues. The existing one was limited to cross-sectional research designs, failing to adequately address adaptation mechanisms for digital-native and digital-immigrant populations in a way that would allow the groups to be associated with psychological effects of digital overload, coupled with the development of self-efficacy.

5. Conclusions

This systematic literature review examines a significant, often overlooked issue at the intersection of technology, mental health, culture, and generational identity. It focuses on the psychological well-being of digital natives and digital immigrants. Drawing on evidence from 45 empirical studies across Asia, Africa, and Europe, it compares the psychological and behavioral responses of both groups to social media overload (SMO). The results show that digital immigrants frequently encounter ongoing psychological problems such as low digital self-efficacy, technological anxiety, and cognitive overload, often worsened by poor network infrastructure and unfamiliar user interfaces. Meanwhile, digital natives, although more skilled and self-assured with digital technology, are increasingly at risk of emotional burnout, social comparison anxiety, and fatigue from multitasking due to their constant use of social media.

The review also emphasizes how culturally ingrained practices and environmental constraints, such as limited access to digital education, digital technology, and communication, i.e., language barriers, deepen the generational digital divide. Importantly, self-efficacy appears to be a key factor that moderates and mediates, helping reduce the negative psychological impacts of digital overload and promoting adaptive coping strategies across generations. Despite increasing evidence, there remains a significant lack of longitudinal, participatory studies examining the long-term success of coping interventions, such as intergenerational mentoring, culturally adapted digital literacy programs, app customization, and infrastructure improvements.

Future research and policymaking should therefore aim to promote digital resilience that is both culturally informed and technology inclusive, especially within mobile, indigenous, and marginalized communities. As mobile internet and social media continue to expand into rural and nomadic areas, it is crucial to ensure that digital inclusion does not unintentionally increase psychological or generational gaps. Ultimately, fostering digital literacy, mental well-being, and intergenerational understanding will be essential for achieving fair and sustainable participation in the global digital ecosystem.

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