

Tourism digital detox and digital-free tourism: What do we know? What do we not know? Where should we be heading?

Thowayeb Hassan and Mahmoud Ibraheem Saleh

Abstract

Purpose – While past research has begun exploring digital-free tourism, tourism digital detox and their benefits, no study to date has comprehensively mapped trends, findings and limitations across this growing body of literature. This study aims to conduct the first bibliometric analysis and systematic literature review to address this gap.

Design/methodology/approach – This study utilized a mixed methodology of bibliometric analysis and systematic literature review. Structured search strings were applied to databases to identify relevant papers, which were screened according to inclusion criteria. Bibliometric analysis of included papers was performed using Bibliometrix, an R package enabling network visualization, statistical tests and science mapping. This allowed the identification of significant topics, theories, methods, citations and publication trends over time.

Findings – The results clearly show that factors previously lacking attention in past tourism research, such as the interplay between online and offline experiences during travel, are emerging as important determinants of travelers' well-being. This study outlines the current state of scholarship on managing technology's impacts on travelers' psychological and social needs. Specifically, we found limited research integrating how digital detox tools shape pre-trip planning, on-site activities and post-trip sharing of travel experiences.

Originality/value – This is the first study to comprehensively map trends and findings in digital-free tourism and tourism digital detox research using a blended bibliometric analysis and systematic literature review methodology. It offers vital direction toward strengthening theoretical understanding and supporting balanced connectivity and fulfillment for all tourists going forward. By addressing limitations, this research approach helps develop this area of scholarship in a unified manner.

Keywords Digital-free tourism, Digital detox, Tourist well-being, Technology overload, Tourism experience, Tourism digitalization

Paper type Research paper

1. Introduction

While current research has increasingly moved to study and apply digital tourism and digitalization initiatives in both the tourism and hospitality sectors, there remains a tendency for digital-free tourism that seeks to eliminate the applications of these technologies (Hu and Liu, 2023). Recent research has looked at what motivates tourists to take digital-free vacations. Studies show that always being connected through technology in work and personal life can lead to problems like tech exhaustion and social media burnout from overusing devices (Egger *et al.*, 2020; Hu and Liu, 2023). This constant connection can make tourists more likely to go on digital detox breaks to escape these stresses (Conti and Farsari, 2022). Being plugged in all the time to technology for work and fun has been linked to feeling tired of devices and wanting a screen-free trip. Studies have found that these tech stresses can encourage tourists to participate in digital-free activities while traveling to unwind without technology pressures (Cai and McKenna, 2023). In other words, issues

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from relying too much on tech in everyday life may increase how willing tourists are to disconnect their devices temporarily during vacations. This, in turn, positively influences tourists' intention to participate in digital detox holidays as a means of escape and respite from such stresses (Cai and McKenna, 2023; Conti and Farsari, 2022).

Moreover, tourists' well-being has become increasingly challenging for many service providers in the current tourism digitalization era characterized by constant connectivity through various information and communication technologies. As suggested by Hu and Liu (2023), both techno-exhaustion from overuse of technology at work and social networking service exhaustion in personal life have been shown to positively impact tourists' intention to engage in digital-free tourism and digital detox. Digital free tourism, also known as digital detox tourism, refers to travel experiences aimed at temporarily disconnecting from digital technologies. It involves structured activities and programs during travel that promote disconnection from devices like smartphones, laptops, tablets and social media to help tourists relax without distractions and pressures (Cai and McKenna, 2023). Digital detox holidays generally provide opportunities for device-free experiences outdoors in nature or through mindfulness workshops and/or retreats indoors (Conti and Farsari, 2022). Some examples include screening-free weekend getaways, meditation camps and technology-banished yoga breaks (Li et al., 2020). Research thus far indicates the demand for digital detox options is primarily driven by tourists' need to alleviate issues like tech exhaustion from the overuse of devices in their daily lives. Their rising need to "detox" is met through a growing supply of digital-free wellness packages tailored for travel (Lachance, 2022).

This aligns with findings by Cai and McKenna (2023) that digital-free tourism allows individuals to negotiate to dominate technology discourses through strategies like complete disconnection, recalling nostalgic memories and reflecting on embodied feelings. While digital connectivity offers benefits, its overuse can lead to issues, as evidenced in studies by Li et al. (2020), proposing a model of how digital-free tourism develops character strengths, and Egger et al. (2020) identifying key motivations for digital detox holidays as escape (Stäheli and Stoltenberg, 2022), personal growth, health, well-being and relationships (Lachance, 2022).

Disconnecting temporarily allows tourists to negotiate to dominate technology discourse through strategies like complete disconnection, digital free tourism (DFT) and introspective reflection on embodied experiences detached from online surveillance (Cai and McKenna, 2023; McKenna et al., 2020). Participating in structured, digital-free tourism activities during travel provides opportunities to engage tourists offline. Mindfulness practices incorporated in retreats and workshops aim to cultivate character strengths through novelty, presence and social interactions unhindered by distractions (Li et al., 2020; Stankov and Filimonau, 2020; Aye, 2018). This assists in reestablishing boundaries between daily digital life and travel experiences that have become blended due to constant connectivity (Zhang and Zhang, 2022). Temporarily heightening awareness of subtle feelings and self-transformations, digital fasting tourism enhances tourists' appreciation for fleeting real-world moments rather than allowing experiences to be controlled by online notifications and fragmented attention (Cai and McKenna, 2023; Li et al., 2020).

To maintain work-life balance once returning from detox trips, tourists implement selective unplugging strategies like periodic tech breaks on future holidays. This balanced approach supports connections with distant networks through technology while prioritizing quality offline interactions with traveling companions and family members (Rosenberg, 2019; Stodolska et al., 2023; Zhang and Zhang, 2022). Regular disconnection from devices relieves the stresses of modern digitized living and cultivates presence, sustaining well-being benefits achieved even after resuming habitual connectivity (Li et al., 2020; McKenna et al., 2020).

While scholarship on digital-free tourism experiences has grown, limitations remain in conceptualizing this phenomenon. Existing literature often adopts narrow perspectives that insufficiently acknowledge the complexity surrounding tourists' technology relationships. A more holistic understanding is needed to inform industry practices catering to evolving traveler needs and well-being promotion responsibly. Specifically, gaps pertain to integrating diverse analytical

lenses to examine the interplay between digital connectivity, stress and wellness. Alternative perspectives that move beyond simplistic binaries of technology as controlling versus escaping its stresses completely are lacking. A nuanced discussion is required to theorize technology's role amid daily life's multidimensional realities. Moreover, research has yet to cohesively synthesize knowledge comprehensively or systematically assess changing knowledge boundaries and terminology. These deficiencies restrict generalizability and guidance for tourism stakeholders, who increasingly prioritize balanced technology offerings throughout experiences. This research aims to map the current state of knowledge, identify theoretical frameworks applied, recognize limitations and suggest avenues for advancing scholarship. Given the gap, current research aims to address these questions:

1. What major trends, topics, findings and methodological approaches have emerged across literature examining tourists' digital well-being and digital-free and/or detox travel experiences?
2. Based on the bibliometric and systematic review results, what are the fundamental limitations and gaps in the current body of research, and what potential new areas of inquiry deserve further study to strengthen theoretical and empirical understanding in this domain?

Answering these questions by investigating tourists' engagement in digital-free travel experiences and motivations for digital detox holidays is highly relevant given the rising issues of techno-exhaustion, social media fatigue and constant connectivity that tourism service providers and travelers now face in the digitalization era. As numerous studies have highlighted, the overuse of digital technologies can negatively impact individuals' well-being, work-life balance and ability to be present in social and travel experiences. Exploring how temporarily disconnecting from such devices and engaging in digital fasting tourism allows tourists to negotiate dominant technology while cultivating character strengths, mindfulness and relationships is of theoretical and practical importance. From a theoretical lens, this area of research contributes to evolving domain knowledge around negotiating technology discourse and developing resilience against constant connectivity. Practically, understanding these motivations and strategies can help tourism businesses better facilitate digital detox programs and offline activities to engage health-conscious travelers seeking respite from technology overuse and enhancement of well-being.

2. Methodology

This study employed both a systematic literature review and bibliometric analysis, giving it a novel contribution to the field of tourism management. A systematic literature review provides a comprehensive synthesis and evaluation of current research on a focused topic (Mura and Wijesinghe, 2023; Pahlevan-Sharif *et al.*, 2019). Meanwhile, bibliometric analysis offers quantitative insights into trends, collaboration patterns and thematic development within a research domain over time (Donthu *et al.*, 2021). By integrating both approaches, this study gains a more holistic perspective than using either method individually. To obtain highly credible and valuable results from the selected articles, we utilized Rstudio-bibliometric software. This software helped us in several ways: (1) identifying frequently used words over time, (2) identifying trends related to the topic and (3) creating thematic analysis maps for the main current themes (Guleria and Kaur, 2021).

The search was conducted using the following advanced query: Title Abs-Key ("technology" OR "digital" OR "well-being" OR "health" OR "mobile" OR "digital free" OR "unplug" OR "offline" OR "disconnect" OR "digital detox") AND ("tourist" OR "destination" OR "travel" OR "hospitality") were used as the study's keywords. The keywords used aimed to capture research at the intersection of digital technology topics related to well-being, health and disconnection alongside tourism and travel industry terms. This combination of technology and tourism keywords was selected to identify literature explicitly focused on digital issues within the tourism sector and the behaviors of tourists.

The study retrieved data from Scopus and Web of Science (WoS). We chose Scopus because it is reliable and covers many publications. At the same time, WoS collects significant and impactful

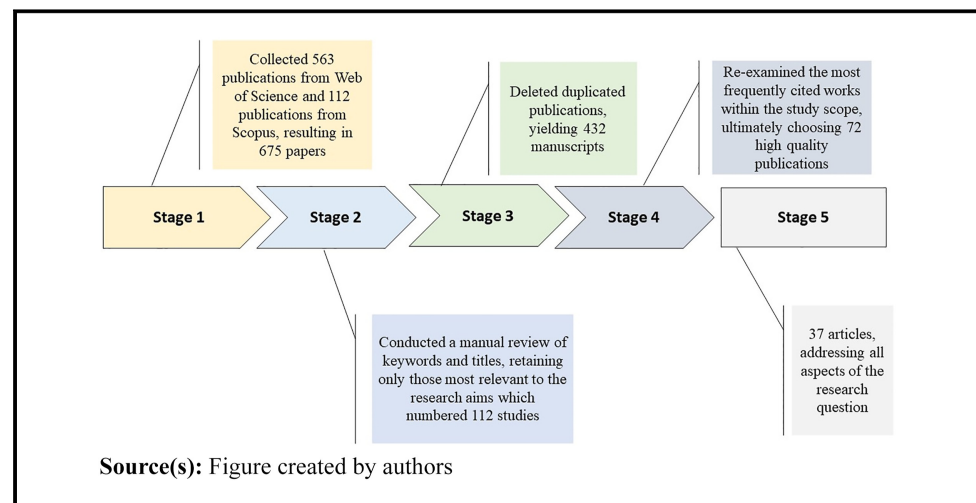
manuscripts, making it a valid database for conducting systematic literature reviews and bibliometric analyses (Knani *et al.*, 2022). The data was extracted in September 2023. A five-stage process was employed for manuscript collection and screening (see Figure 1). Initially, we generated a pool of 563 publications from Web of Science and 112 publications from Scopus, resulting in 675 papers. Secondly, all titles were examined, and duplicate publications were removed, yielding 432 unique documents.

During the third stage, we narrowed the literature by manually reviewing keywords and titles, retaining only those most relevant to the research aims, and numbered 112 studies. We then evaluated the abstracts independently to target papers further precisely aligned with the objectives, validating researcher selections. In the fourth stage, we re-examined the most cited works within the scope of the study, and finally selected 72 high-quality tourism-related publications written in English for in-depth analysis. Then, the full texts of the selected 72 studies were thoroughly read to identify those explicitly addressing all aspects of the research question. Through this final filtering, 37 sources were identified as most directly pertinent and applicable to the current study. These constituted the body of literature for comprehensive exploration and synthesis of key themes. To do so, we followed the procedure outlined by Knani *et al.* (2022) and Echchakoui (2020), which allows for a single, unified analysis. Previously, Echchakoui (2020) demonstrated that performing a bibliometric or systematic analysis on a merged database provides a more comprehensive overview of the knowledge and trends in each field rather than individually analyzing data from Scopus or Web of Science.

Rigorous screening across multiple phases allowed consolidation of the most suitable empirical research to support addressing the aims contemplated in this review. Independent verification between authors further strengthened the validation and reliability of materials incorporated for analysis. Through our analysis, we were able to cluster the data and derive insights to guide future directions around digital detox and low-tech tourism. In addition to bibliographic data, the bibliometric analysis included co-word mapping to identify significant themes. Co-word analysis is a text mining technique that examines the frequency of keywords co-occurring within sources. Tracking co-occurring keyword pairs across publications allows for visualizing thematic clusters and relationships within the literature. Specifically, we identified three main areas for discussion:

What do we know? What do we not know? Where should we be heading? In the following sections, we will examine these areas in turn. First, we will discuss the current literature and research about the existing understanding of digital detox tourism trends, motivations and needs. Second, we will outline the gaps and uncertainties around low-tech travel preferences and

Figure 1 Process of article selection and screening



accessibility. Finally, we will propose potential avenues for future study based on our analysis of what has yet to be explored.

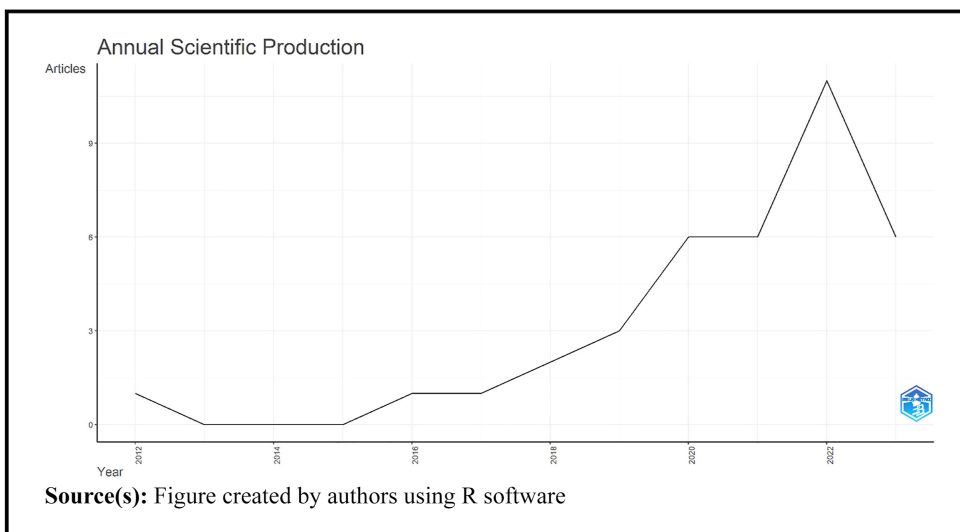
3. What do we know?

3.1 Evolution of the topic

Research examining the intersection of tourism, technology and digital well-being appears to be a growing study area over the past decade (see Figure 2). Figure 2 explores that the initial interest in the topic began in 2012 with one published study. However, no further research was produced between 2013 and 2015, suggesting it was still an emerging field with little exploration. Interest began to gradually ramp up starting in 2016, with one study that year followed by another in 2017. This marked the beginning of sustained, albeit slow, growth in this domain. The number of related studies then doubled to two in 2018 and grew further to three studies in 2019, indicating the field was expanding bit by bit as issues of technology use and its effects on tourists' wellness started receiving more scholarly consideration.

A key turning point in research output occurred in 2020 when six related studies were published – a notable increase over prior years. This spike was likely driven by rising concerns during the COVID-19 pandemic regarding extensive individual technology use for work, education and social purposes, as well as issues with virtual travel experiences not entirely replacing in-person mobility. Digital platforms have become primary conduits for work, learning and social connection globally throughout 2020, with social distancing mandates and travel restrictions limiting physical interactions. However, extensive virtual connectivity through devices and platforms during this period may have also heightened tech-related stresses like fatigue. The increase in studies examining online technology risks and motivations for digital-free activities in 2020 thus reflected a timely response to challenges presented by the pandemic, both in terms of overreliance on digital solutions and limitations of virtual travel as a substitute for in-person tourism. These circumstances accelerated the already growing interest in tourism technology's well-being impacts. The momentum continued strongly into 2021 and 2022, with publication numbers holding steady at six studies per year through 2021 but leaping to eleven studies for 2022. This peak reflects how the topic has gained significant scholarly interest as considerations of tourist well-being go beyond just the development and use of technology, encompassing its potential negative impacts (see Figure 4).

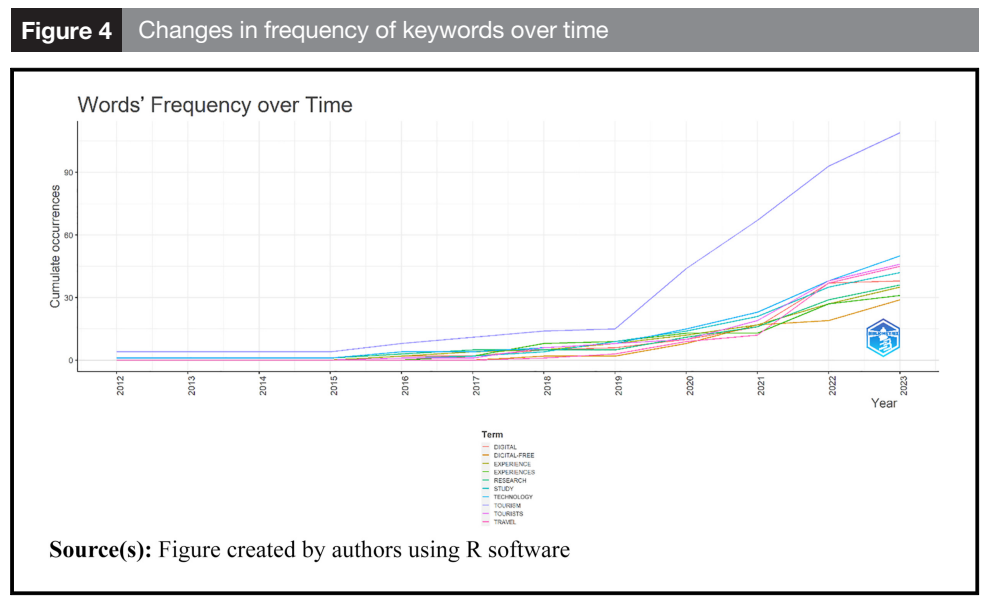
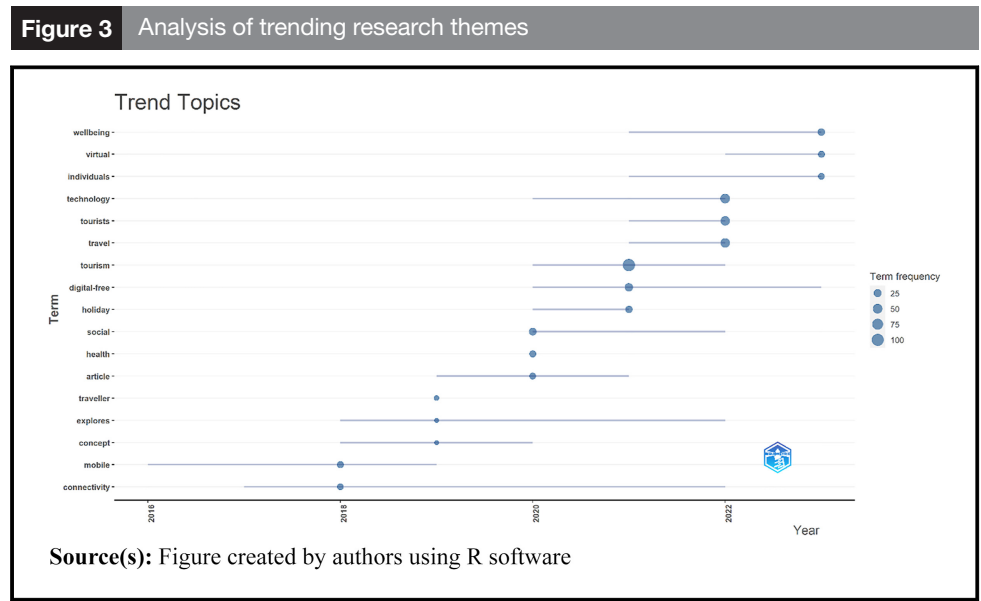
Figure 2 Evolution of research output over time



Preliminary data for 2023 shows a decline back down to six studies, suggesting the sharp growth spurt between 2020–2022 may be leveling off again as the immediate circumstances of the pandemic fade. However, output remains substantially higher than pre-2020 levels, indicating research on tourism technology and digital wellness appears to have established itself as an essential area of ongoing investigation. The steady upward trajectory since 2012 demonstrates that this topic will likely continue growing in scholarly and practical relevance.

3.2 Research trends

To identify trends in the research topics, this study conducted a keyword frequency analysis of abstracts from relevant studies between 2012 and 2023. As shown in Figure 3, keywords relating to virtual reality and well-being saw increasing prominence, suggesting virtual and augmented tourism experiences are an area of growing scholarly focus vis-a-vis visitor health and experience.



However, keywords reflecting concepts of digital distancing and disconnecting also demonstrated high frequencies, particularly in the last three years. This indicates many recent studies have explored the importance of reducing digital dependency and promoting periods of technological abstinence for tourists' psychological and physical wellness (see [Figure 4](#)).

3.3 Main findings

Based on conceptual and empirical research, the existing literature has explored various aspects of digital well-being and digital-free tourism experiences (see [Table 1](#)). Quantitative studies by [Hu and Liu \(2023\)](#), [Floros et al. \(2021\)](#), [Liu and Hu \(2021\)](#) and [Egger et al. \(2020\)](#) have identified key factors influencing tourists' motivations for and intentions toward digital detox holidays, such as techno-exhaustion, social networking fatigue and desires for escape, personal growth and health benefits. Qualitative research by [Cai and McKenna \(2023\)](#), [Rosenberg \(2019\)](#), [Zhang and Zhang \(2022\)](#) and [Syvertsen \(2022\)](#) provides rich insights into strategies used by individuals to resist dominant technology narratives, such as complete disconnection, nostalgia and managing availability. Other scholars have examined emotional episodes during disconnected travel ([Cai et al., 2020](#)), perceptions of different tourist groups ([Clark and Nyaupane, 2023](#); [Hassan et al., 2022](#)) and experiential impacts of perpetual connectivity ([Ayeh, 2018](#); [McKenna et al., 2020](#)). Conceptual studies also shed light on frameworks for understanding the effects of technology ([Choi et al., 2022](#)) and opportunities posed by virtual formats ([Rahmani et al., 2023](#)).

Previous tourism technology literature has mapped the complex interplay between tourists' digital lives, well-being goals, travel motivations and autonomy over travel experiences. Insights have been gathered on evolving media representations of digital-free tourism ([Li et al., 2018](#)), destination perceptions shaped by technology use ([Tanti and Buhalis, 2017](#)), differences in tourist personas with varying online-offline orientations ([Fan et al., 2019](#)) and tensions between connectivity desires and retreat intentions ([Dickinson et al., 2016](#)). Advances have also occurred in recognizing innovations promoting healthy living through approaches like mindfulness ([Stankov and Filimonau, 2020](#); [Moisa and Michopoulou, 2022](#)) and widening research scopes to keep pace with industry transformations, including understudied areas like webcam travel ([Lee et al., 2022](#)).

3.4 Main theories

Many theoretical frameworks have been utilized to understand various aspects of digital well-being, digital-free tourism experiences and technology's role in travel and leisure activities. Critical studies by [Cai and McKenna \(2023\)](#) and [Lachance \(2022\)](#) draw on poststructuralist perspectives to conceptualize technology as disciplinary power and interrogate its transformative effects on tourism through notions of resistance, ambiguities and social contextualization. Technostress is a familiar concept applied across quantitative research to explain stressors from devices and their relationship to travel motivations ([Hu and Liu, 2023](#); [Liu and Hu, 2021](#)). Other scholars employ positive psychology lenses to comprehend vacations' contributions to hedonic and eudaimonic well-being ([McLean and Aldossary, 2022](#)). Family systems theory and core-balance leisure models also shed light on togetherness and quality of life amid digital influences ([Stodolska et al., 2023](#)).

Several studies propose original frameworks such as the Disconnected Emotions Model ([Cai et al., 2020](#)), DREAMA – detachment, recovery, engagement, affiliation, meaning and achievement-well-being framework ([Lee et al., 2022](#)) and technology escape conceptualizations ([Clark and Nyaupane, 2023](#)) to map evolving emotive experiences and impacts over time. Actor-network theory, locus of control theory and digital and/or screen ambivalence notions similarly deepen comprehension of agency, meanings and tensions between connectivity desires and isolation intentions ([Conti and Farsari, 2022](#); [Hassan et al., 2022](#); [Syvertsen, 2022](#)). Concepts including selective unplugging, communicative affordances and tourism encapsulation and/or decapsulation underpin qualitative interpretations of negotiating everyday travel boundaries and technology's functions ([Rosenberg, 2019](#); [Zhang and Zhang, 2022](#); [Fan et al., 2019](#)). Together,

Table 1 Main findings

| Author | Main findings |
|------------------------------------|---|
| Cai and McKenna (2023) | <ul style="list-style-type: none"> •Tourists employ strategies like full disconnection, redefining rewards and/or punishments, recalling memories and reflecting on feelings to resist dominant tech discourse •Digital-free tourism can be seen as resisting dominant tech discourse |
| Hu and Liu (2023) | <ul style="list-style-type: none"> •Techno-exhaustion and SNS-exhaustion “social networking sites” positively impact intention for digital-free tourism •Those stressed by tech are more likely to seek digital-free tourism as relief •Techno-exhaustion moderates’ relationship between SNS-exhaustion and digital-free tourism intention |
| Stodolska <i>et al.</i> (2023) | <ul style="list-style-type: none"> •Leisure activities maintain a sense of togetherness and improve family quality of life for KTSF. •Families use tech to connect on core leisure during separation •Families engage in core and balance leisure, and daily activities seen as leisure when reunited •Growing disconnect observed between fathers and older children over time |
| McLean and Aldossary (2022) | <ul style="list-style-type: none"> •Vacation positively impacts hedonic and eudaimonic wellbeing •Wellbeing rises and falls over vacation course •Explores role of VR in boosting positive wellbeing effects of vacation |
| Rahmani <i>et al.</i> (2023) | <ul style="list-style-type: none"> •Virtual wellness retreats may enhance wellbeing through relaxation, adventure, services, sustainability, community and co-created experiences •Proposes new research directions on wellbeing in context of virtual retreats |
| Clark and Nyaupane (2023) | <ul style="list-style-type: none"> •Differences in millennials’ and providers’ views on tech’s impact in nature tourism •Millennials view some tech like WiFi as less enhancing than providers •Conflicting need to escape tech but desire basic tech services •Identifies 4 dimensions of travel constraints: intrapersonal, interpersonal, time, destination attributes |
| Arenas-Escaso <i>et al.</i> (2022) | <ul style="list-style-type: none"> •DFT is a growing research trend and digital disconnection is a growing need •DFT can benefit tourism market by addressing tech addictions and as escape |
| Zhang and Zhang (2022) | <ul style="list-style-type: none"> •Tourists disconnect to reestablish boundaries between daily life and travel •Tourists may reconnect, driven by social obligations or needs •Travel and daily life are intertwined, selective unplugging balances online offline |
| Hassan <i>et al.</i> (2022) | <ul style="list-style-type: none"> •Those with internal locus of control are more likely to see DFT benefits for wellbeing, mental health, networking •Those with external locus gradually see benefits through improved self-efficacy from DFT experience |

(continued)

Table 1 Continued

| Author | Main findings |
|--------------------------------|--|
| Choi <i>et al.</i> (2022) | <ul style="list-style-type: none"> •Proposes conceptual framework explaining relationships among tech variables, moderators, virtual travel experience, destination image, psychological wellbeing •Provides |
| Stankov and Filimonau (2020) | <ul style="list-style-type: none"> •Highlights trend of tech-assisted mindfulness and impacts on e-tourism and co-created experiences •Discusses mindfulness benefits like cognition, anxiety, stress, immune function, compassion |
| Moisa and Michopoulou (2022) | <ul style="list-style-type: none"> •Travelers seek experiences promoting holistic wellbeing due to stress and diseases •Tech enhances wellbeing by offering innovative wellness experiences •Highlight |
| Lee <i>et al.</i> (2022) | <ul style="list-style-type: none"> types of techs supporting wellbeing and its positive impacts •Limited research on webcam travel's impact on psychological wellbeing •Webcams uniquely offer real-time, cost-free global views •Proposes |
| Conti and Farsari (2022) | <ul style="list-style-type: none"> webcam travel enhances hedonic and eudaimonia wellbeing •Social connectivity, information, orientation core to tourists' mobile connectivity •Tourisms scape contributes to definitions of disconnection •Connectivity |
| Syvertsen (2022) | <ul style="list-style-type: none"> and disconnection complex, non-dualistic in nature-based tourism •Hikers aware of digital media's positives and negatives offline •Offline tourism intensifies break and/or nature reconnect experiences •Tensions exist around safety, communication, social media usage •Local |
| Lachance (2022) | <ul style="list-style-type: none"> norms influence interpretations of being digital-free •Challenge's view that disconnection solely due to tech negatives •ICT use during travel is shaped by wider social context •Highlights |
| Stäheli and Stoltenberg (2022) | <ul style="list-style-type: none"> transformative ICT effects and disconnection tensions and/or identities •Digital detox tourism relies on analog-digital distinctions staging and/or performance •Introduces "analogization" describing supporting practices and/or media and/or infrastructure •Highlights |
| Sintobin (2021) | <ul style="list-style-type: none"> connection between analogization and power structures •Tourist-traveler dichotomy complex, discursive social construction •Psychographic profiles on continuum between tourist/traveler •Discusses historical exclusivity of "traveler" label and identity politics •Identifies 21st century trends in commodifying escape, niche tourism, local slow tourism movements |

(continued)

Table 1 Continued

| Author | Main findings |
|-------------------------------------|--|
| Nutz and Leifheit (2021) | <ul style="list-style-type: none"> ●Players had positive experience with cooperative and/or competitive TSP board games ●Game enabled exploring TSP solutions intuitively and/or algorithmically ●Players reported being in “zone” familiarizing with TSP and strategies |
| Ozdemir and Goktas (2021) | <ul style="list-style-type: none"> ●Digital detox holidays are considered form of digital-free and unplugged tourism ●Publications on topic increased since 2016, especially after 2018 ●Highlights characteristics and publication trends |
| Liu and Hu (2021) | <ul style="list-style-type: none"> ●Techno-exhaustion and SNS-exhaustion positively impact digital-free tourism intention ●Those exhausted by tech/social media are more likely to engage in it ●Techno-exhaustion moderates SNS-exhaustion’s relationship to intention |
| Pawlowska-Legwand and Matoga (2021) | <ul style="list-style-type: none"> ●Unplugged tourism is seen as travel/leisure style or even therapy through reducing ICT use ●Dividing lines between segments blurred, results only prologue for further studies |
| Floros <i>et al.</i> (2021) | <ul style="list-style-type: none"> ●Millennials perceive benefits of digital-free travel for wellbeing ●Millennials are concerned about social expectations, tech dependence regarding it ●Emphasizes importance of reducing tech use to achieve psychological sustainability |
| Li <i>et al.</i> (2020) | <ul style="list-style-type: none"> ●Digital-free tourism proposed to develop character strengths through novel situations ●Takeaway is perception it develops strengths like self-regulation, appreciation ●Suggests personal growth benefits beyond documented emotions/motivations |
| Egger <i>et al.</i> (2020) | <ul style="list-style-type: none"> ●Key motivations for DFT have been identified as escape, personal growth, health and/or wellbeing, relationships ●Several exploratory subthemes further explain motivators ●Views DFT as travel choice that benefits can maximize through promotion |
| Cai <i>et al.</i> (2020) | <ul style="list-style-type: none"> ●Provides contextual update on emotional episodes during disconnected travel ●Details negative emotions like anxiety and potential positives like wellbeing ●Highlights importance of considering complex, evolving emotions in broader context |
| McKenna <i>et al.</i> (2020) | <ul style="list-style-type: none"> ●Travelers face challenges disconnecting from personal and/or professional commitments ●Digitally surveilled on social media by friends and/or family and through work channels ●Expectations of availability extend into holidays, difficult to fully disconnect ●Influences of private and/or work commitments on holidays and surveillance extension |
| Wong and Hazley (2020) | <ul style="list-style-type: none"> ●Adoption of IR 4.0 tech in healthcare can make overseas treatment affordable, accessible, convenient through real-time communication and health records ●But also acknowledges security, social, economic concerns with health tourism growth |

(continued)

Table 1 Continued

| Author | Main findings |
|--------------------------------|---|
| Coca-Stefaniak (2021) | <ul style="list-style-type: none"> ●Current smart tourism research lacks addressing social issues cities face ●Proposes post-smart approach for tourism management and/or marketing emphasizing sustainability and wider strategic positioning agenda beyond mere smartness ●Introduces concept of wise tourism destinations for research |
| Fan <i>et al.</i> (2019) | <ul style="list-style-type: none"> ●Establishes six-fold tourist typology based on online and face-to-face social contacts, highlighting behaviors and tendencies ●Explores destination immersive level for different tourist types: Disconnected immersive traveler, Digital detox traveler, Diversionary traveler, Daily life controller, social media addict, Dual zone traveler |
| Fan and Liu (2020) | <ul style="list-style-type: none"> ●Both online and face-to-face experiential value co-creation positively impact tourists' satisfaction and wellbeing ●Insignificant trade-off between two types of co-creation, either can contribute to satisfaction and wellbeing |
| Rosenberg (2019) | <ul style="list-style-type: none"> ●Backpackers employ avoidance practices to reduce availability and gain communication control ●Practices derived from narrative of backpacking as escapist, tech-free space ●Highlights parental influence on backpackers' cell phone usage decisions |
| Li <i>et al.</i> (2018) | <ul style="list-style-type: none"> ●Media representation of DFT evolved over time from reaction to connectivity to emphasizing flourishing, wellbeing, experience management rather than tech control ●DFT seen as managing relationships and/or experiences ●Media discourses construct destinations, interests, opinions/behaviors ●Insights into tech use trends, DFT significance and/or value, opportunities |
| Ayeh (2018) | <ul style="list-style-type: none"> ●Mobile devices used during vacations can detract from individual and/or group experiences ●Digital distractions negatively impact sightseeing quality, wellbeing, social interactions, others' experiences ●Tourists aware but may not practice mindful tech use |
| Tanti and Buhalis (2017) | <ul style="list-style-type: none"> ●Overview of factors boosting and/or distracting digitally enhanced experiences: hardware and/or software, needs and/or contexts, usage openness, connectivity supply and/or provision ●Connected and/or Disconnected Consequences Model of positive and/or negative consequences |
| Dickinson <i>et al.</i> (2016) | <ul style="list-style-type: none"> ●Up to 50% of camping tourists desired disconnection from mobile tech ●Dilemmas and ambiguity around mobile tech tourism use despite valuing connectivity ●Digital engagement's small effect on disconnection, insignificant patterns |
| Hjalager and Flagestad (2012) | <ul style="list-style-type: none"> ●Investigated wellbeing tourism innovation categories in Nordic countries potentially including festivals, season products, target groups, tech role ●Collaborative structures' importance for sector innovation |

Source(s): Table created by authors

these diverse yet complementary theoretical anchors have advanced debate over travelers' autonomy amid digitization.

3.5 Main terminologies and essential concepts

Many terms and concepts have been introduced across studies to describe various aspects of digital well-being, digital connectivity and tourism experiences in the technology era (see Table 2). Core concepts examined include digital-free tourism (Cai and McKenna, 2023; Ozdemir and Goktas, 2021), technostress and tech and/or SNS exhaustion (Hu and Liu, 2023; Liu and Hu, 2021) and experiential value co-creation (Fan and Liu, 2020). Theoretical frameworks have similarly proliferated, ranging from Foucault's power analysis applied to technology resistance (Cai and McKenna, 2023) to locus of control theory in explaining individuals' locus attribution (Hassan *et al.*, 2022). Additional frameworks shed light on family systems (Stodolska *et al.*, 2023), wellbeing models like DREAMA (Lee *et al.*, 2022) and tourism encapsulation and/or decapsulation dynamics (Fan *et al.*, 2019).

Related terms provide essential context, such as defining digital detox practices (Egger *et al.*, 2020; Ozdemir and Goktas, 2021), exploring tourism and/or daily life boundaries through selective unplugging (Zhang and Zhang, 2022), differentiating online and/or offline tourist personas (Fan *et al.*, 2019) and characterizing the backpacking experience as tech-free (Rosenberg, 2019). Broader industry concepts have also emerged, including notions of smart destinations transitioning to wisdom-based approaches addressing social issues (Coca-Stefaniak, 2021). Quantitative, qualitative and conceptual studies intersect by operationalizing concepts like surveillance (McKenna *et al.*, 2020), communicative affordances (Rosenberg, 2019) and analogization in digital detox staging (Stäheli and Stoltenberg, 2022). Together, this diverse yet complementary terminology forms an expansive lexicon for comprehending evolving technology-tourism linkages and their human impacts.

4. What do we not know?

4.1 Main research topics and future research stream

This section provides a visual overview of the development of critical concepts related to enhancing tourist well-being through digital disconnection and detoxification. A thematic map was conducted using bibliometric analysis software based on co-word network analysis and clustering (Figure 5). Figure 5 displays the strategic diagram used to categorize the detected themes within this research area. Each theme's centrality refers to its relative importance in shaping the overall field of study, while density indicates the theme's maturation over time. The size of each circle correlates to the number of publications associated with that keyword theme (Bastidas-Manzano *et al.*, 2021).

The strategic diagram in Figure 5 categorizes themes based on their plotted centrality and density related to enhancing tourist well-being through digital disconnection. The upper-right quadrant represents well-established topics, *The motor theme*, that have achieved high levels of centrality and maturity. Within this, *digital detox tourism* and *nature-based tourism for wellness* emerge as prominently developed themes, demonstrating significant scholarly focus on approaches promoting relaxation and health away from online platforms. However, the analysis also indicates that studying *Millennial tourists* possesses high conceptual importance but still requires further empirical examination. This population constitutes the first generation to come of age with ubiquitous digital technologies, or digital natives. While highly connected online, Millennials may encounter distinct challenges when attempting to fully disconnect for well-being compared to older cohorts without similar upbringings. The theme's moderate density but 66.7% estimated impact underscores the need for additional research illuminating Millennials' relationship with technology during travel to better facilitate beneficial detachment. Expanding such inquiries to encompass varying generational views will also be vital as technologies evolve rapidly.

Table 2 Main terminologies and concepts

| <i>Author</i> | <i>Main approaches</i> |
|-------------------------------------|---|
| Cai and McKenna (2023) | Digital-free tourism, autoethnography, disciplinary power, resistance, Foucault's power analysis |
| Hu and Liu (2023) | Technostress, SNS-stress, digital-free tourism, techno-exhaustion, SNS-exhaustion |
| Stodolska <i>et al.</i> (2023) | Korean transnational split families, family quality of life, core-balance model of family leisure, family systems theory |
| McLean and Aldossary (2022) | Hedonic and eudaimonic wellbeing, vacation experience, lasting effects, VR tourism, role of VR in boosting wellbeing |
| Rahmani <i>et al.</i> (2023) | Virtual wellness retreats, psychological well-being, wellness tourism, sustainable tourism, digital well-being |
| Clark and Nyaupane (2023) | Technology escape, digital-free travel, leisure constraints theory, nature-based tourism, travel constraints |
| Arenas-Escaso <i>et al.</i> (2022) | Digital disconnection, digital free tourism, digital detox, technological addiction, digitalization, behavioral changes, tech effects on health |
| Zhang and Zhang (2022) | Selective unplugging, disconnected tourism, connectivity, travel and/or daily life, mobility turn, virtual mobility, escape, return, digital-free tourism |
| Hassan <i>et al.</i> (2022) | Digital-free tourism, locus of control, internal LOC, external LOC, wellbeing, mental health, networking benefits |
| Choi <i>et al.</i> (2022) | Digital tourism, virtual travel, destination image, tech variables, moderators, psych wellbeing, affordance, heuristics, inclusiveness |
| Stankov and Filimonau (2020) | Meditative mindfulness, digital tech, tourist experiences, co-creation, digital wellbeing |
| Moisa and Michopoulou (2022) | Wellbeing, healthy living, tech advancements, unplugging, intense tech use, digital traveler's life, tech role in wellbeing |
| Lee <i>et al.</i> (2022) | Webcam travel, virtual tourism, hedonic wellbeing, eudaimonic wellbeing, DREAMA model |
| Conti and Farsari (2022) | Disconnection, connectivity, actor-network theory, nature-based tourism, tourismescapes, meaning-making |
| Syvertsen (2022) | Offline tourism, digital ambivalence, screen ambivalence |
| Lachance (2022) | ICT disconnecting, travel context, late modernity, social media, internet, travel experiences |
| Stäheli and Stoltenberg (2022) | Digital detox tourism, analogization, digital dualism, dis/connection, disconnectivity, tourism |
| Sintobin (2021) | Tourist-traveler dichotomy, semiotics, typologies, power structures, tourism trends |
| Nutz and Leifheit (2021) | Traveling salesperson problem, game experience, cooperative and/or competitive game, zone of proximal development, user experience study, combinatorial problem, algorithmic strategies |
| Ozdemir and Goktas (2021) | Digital detox holidays, digital-free tourism, unplugged tourism, publication trends |
| Liu and Hu (2021) | Digital-free tourism, techno-exhaustion, SNS-exhaustion |
| Pawłowska-Legwand and Matoga (2021) | Unplugged tourism, digital detox, ICT, hospitality industry |
| Floros <i>et al.</i> (2021) | Digital-free travel, millennials, psychological sustainability, UTAUT |
| Li <i>et al.</i> (2020) | Character strengths, virtues, digital-free tourism, positive psychology, tourist experience |
| Egger <i>et al.</i> (2020) | Digital free tourism, etourism, digital detox, smartphone addiction |
| Cai <i>et al.</i> (2020) | Affordance, emotional episodes, disconnected emotions model, digital-free travel |
| McKenna <i>et al.</i> (2020) | Digital-free travel, surveillance, interpersonal electronic surveillance, social surveillance, copresence |
| Wong and Hazley (2020) | IR 4.0, health tourism, wellness tourism, telemedicine, IoT, AI, healthcare evolution |
| Coca-Stefaniak (2021) | Smart tourism, smart cities, sustainable futures, wise tourism destinations, place marketing |
| Fan <i>et al.</i> (2019) | Tourism encapsulation, contact-immersion, social contact, tourist typology |

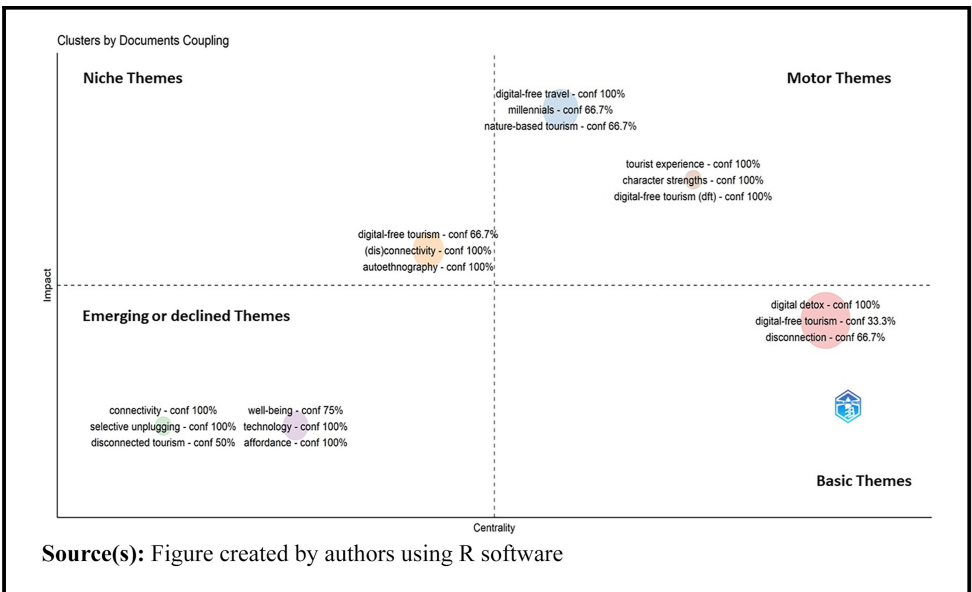
(continued)

Table 2 Continued

| Author | Main approaches |
|--|---|
| Fan and Liu (2020) Rosenberg (2019) | Experiential value co-creation, ICT, SWB, trade-off, value co-creation Flashpacker, unplugged, communicative affordances, cell-free backpackers, cell phone function |
| Li et al. (2018) | Digital-free tourism, ICT, critical discourse analysis, connectivity, dead zones, detoxing |
| Ayeh (2018) | Digital distraction, multitasking, tourism, divided attention, tech paradoxes |
| Tanti and Buhalis (2017) | Connectivity, digitally enhanced experiences, hardware, software, needs, usage, model |
| Dickinson et al. (2016) | Mobile tech, digital connection, tourism experience, engagement, desire for disconnection |
| Hjalager and Flagestad (2012) | Innovation, well-being tourism, Nordic countries |

Source(s): Table created by authors

Figure 5 Mapping of emerging research streams

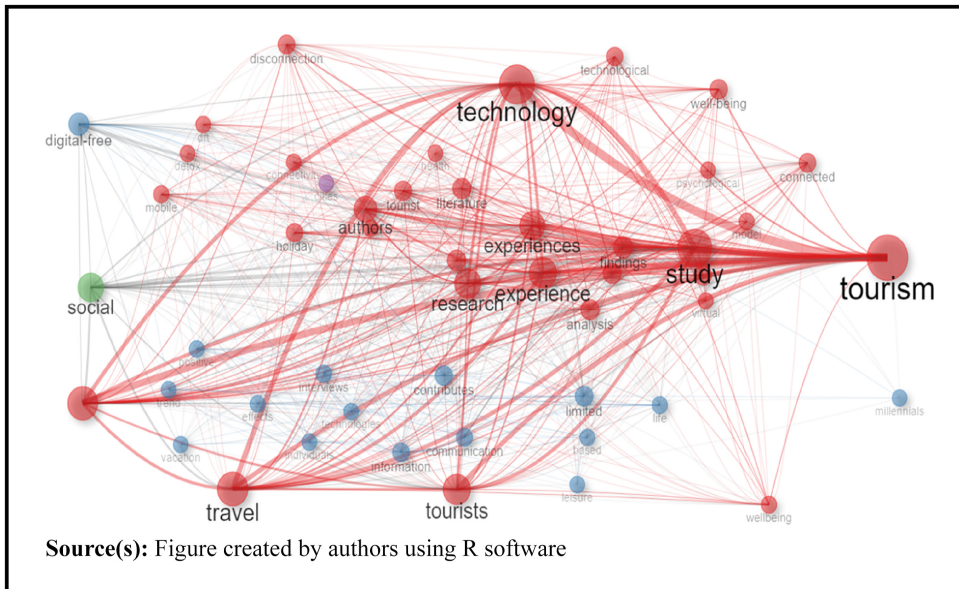


Moving to other quadrants, the lower right contains basic transversal subjects, *Basic theme*, approaching median positioning. Here, *disconnection studies* constitute a moderately developed foundational area. Meanwhile, the upper left's *Niche themes*, such as *dysconnectivity* remain more specialized and warrant further development to broaden understanding beyond removing technology altogether during experiences. Finally, the lower left quadrant-*Emerging themes* portrays emerging or peripheral themes that are weakly established conceptually and in research output. Notions such as *unplugging* and *connectivity* present opportunities for future study as technology dependence continues rising, emphasizing the importance of promoting periodic online abstinence for travelers.

4.2 Exploring conceptual structure for future avenues

A bibliographic coupling analysis of keywords was conducted to examine research connection strengths and identify potential avenues for future study (Bastidas-Manzano et al., 2021; Donthu et al., 2021). Figure 6 displays the results of a co-word analysis conducted using Rstudio-

Figure 6 Visualization of co-occurring keyword networks



bibliometric software. Each node in the network represents a keyword, with the node's size indicating how frequently that keyword appeared across the literature (Donthu *et al.*, 2021). The links between nodes illustrate which keywords co-occurred or appeared together within the same documents. Thicker links represent higher levels of co-occurrence between connected keywords (Knani *et al.*, 2022). Several prominent clusters are evident. The large nodes for technology, tourist and travel show their prevalence as topics, reflecting extensive coverage of tourists' interactions with digital tools. Notably, the blue cluster blends the keywords *digital* and *disconnection*, suggesting growing research on limiting technology usage. Additionally, the separate red node for "disconnection" reinforces this trend. Some clusters also connect constraints on digital engagement to enhanced *well-being* preliminary exploring the positive impacts of unplugging on vacationers' psychology.

However, the solitary green node for *social* indicates fewer robust associations relating these areas to broader societal implications. While individual effects have received initial examination, the network visualization shows understanding is still developing regarding how digital detachment during tourism may influence surrounding communities and ecological outcomes as disconnecting becomes more widespread. Failing to investigate such community and environmental impacts could neglect vital sustainability considerations as trends progress. Future research would strengthen analyses of networked consequences stemming from adopting technology-restricted travel, helping ensure both traveler benefits and responsible community impacts are optimized through more conscientious planning and offerings. Strengthening these relatively weaker linkages will be necessary for developing a comprehensive perspective.

5. Where should we be heading?

Many studies acknowledged certain limitations that point to avenues for further research (Cai and McKenna, 2023; Hu and Liu, 2023; Stodolska *et al.*, 2023; Hassan *et al.*, 2022). A common constraint involved the small and narrow sample sizes employed, limiting the generalizability of findings (Stodolska *et al.*, 2023; Zhang and Zhang, 2022). Several examinations relied on self-reported data through interviews or surveys, introducing potential biases (Hassan *et al.*, 2022; Stodolska *et al.*, 2023). Furthermore, numerous investigations centered on intentions rather than actual behaviors or longer-term impacts, such as Hu and Liu (2023) examining intention rather than

experiences directly. Conceptual works like [Choi et al. \(2022\)](#) indicated empirical validation was still required to assess the frameworks proposed. Examinations focusing on single destinations or sites constrained generalization ([Syvertsen, 2022](#); [Conti and Farsari, 2022](#)). Being unable to access full texts also restricted evaluation at times, as with [Lachance \(2022\)](#). Many articles did not directly state constraints but implied directions like employing broader samples ([Floros et al., 2021](#)), mixed research methods, cross-cultural perspectives ([Hu and Liu, 2023](#)), examination of underlying mechanisms ([Fan and Liu, 2020](#)) and longitudinal designs ([Syvertsen, 2022](#)) could help alleviate limitations and extend knowledge on facets like psychological consequences ([Lee et al., 2022](#)), constraints on participation ([Clark and Nyaupane, 2023](#)) and mobile technologies' evolving roles ([Conti and Farsari, 2022](#)). Acknowledging and addressing limitations is integral to advancing the debate on technology's linkages with tourism and travelers' autonomy.

5.1 Why, how and what future studies should focus on to expand the theory

Several limitations point to fruitful avenues for future research investigations. One opportunity involves conducting empirical studies employing more extensive and diverse samples to validate frameworks proposed and enhance the generalizability of findings, as conceptual works like [Choi et al. \(2022\)](#) and narrow examinations presented. Quantitative and qualitative methods could be integrated into mixed methods research designs to gain robust, multi-dimensional insights into topics such as tourists' behavioral experiences disconnecting rather than just intentions, as seen in [Hu and Liu \(2023\)](#). Cross-cultural examinations incorporating broader demographic profiles would further enrich the understanding of how individual attributes and social contexts mold technology perceptions during travel, as implied in [Floros et al. \(2021\)](#) and [Hassan et al. \(2022\)](#).

Multiple studies could also be replicated and expanded to new contexts. This includes comparing single-site analyses like [Conti and Farsari \(2022\)](#) across locations, industries integrating technology-assisted practices as discussed in [Stankov and Filimonau \(2020\)](#) and longitudinal explorations examining how constructs change over extended periods, as [Syvertsen \(2022\)](#) noted. Mechanistic perspectives delving into underlying psychological, social and economic processes could complement existing work. Finally, niche areas featuring limited prior studies, such as webcam travel's impacts on well-being, as identified by [Lee et al. \(2022\)](#), represent prime opportunities for new research trajectories. Filling gaps in knowledge around these types of research avenues holds substantial potential to advance academic and practical comprehension of technology's evolving intersections with the tourism sphere. Additional avenues could involve exploring issues like the influences of specific tech attributes and/or platforms on virtual experiences and destination impressions ([Choi et al., 2022](#)), constraints to generations' tourism participation and mitigation strategies ([Clark and Nyaupane, 2023](#)), the balancing of connectivity desires and isolation needs through mobile usage behaviors ([Conti and Farsari, 2022](#)), models of conceptualizing technology addiction recoveries through tourism alternatives ([Arenas-Escaso et al., 2022](#)) and assessments of digital retreat and/or detox designs targeting diverse demographics ([Rahmani et al., 2023](#)). Together, these multi-faceted lines of future inquiry can deeply elucidate factors shaping travelers' technology relationships amid digital transformations (see [Table 3](#)).

According to [Table 3](#), further exploration into how technological attributes like interactivity and immersion influence tourist experiences of digital detox and reconnecting with nature would be valuable. Previous research has examined the role of technology design in user experiences, finding certain interface features can hinder or promote reducing device usage and focusing inward ([Aye, 2018](#); [Dickinson et al., 2016](#)). Thus, we recommend future scholars conduct experimental studies directly comparing high versus low interactive and/or immersive technologies in controlled natural environments could provide valuable new insights, as suggested in prior bibliometric analyses of smart and digital tourism literature ([Bastidas-Manzano et al., 2021](#); [Donthu et al., 2021](#)). The findings would help application developers craft technologies conducive to reconnection rather than distraction ([Cai et al., 2020](#); [Conti and Farsari, 2022](#)). Also, we recommend tourism operators and boards could then leverage these insights to curate educational experiences highlighting design

Table 3 Future research questions and the potential contributions

| <i>Question</i> | <i>Potential contribution</i> | <i>Concepts that could be addressed for each question</i> |
|--|---|---|
| How do specific technological attributes (e.g. interactivity, immersion) influence tourist experiences of digital detox and reconnect with nature? | Understand role of technology design in digital detox experiences | Immersion, interactivity, ubiquity |
| What constraints do different generations face in participating in digital-free tourism, and how can strategies help mitigate issues around accessibility? | Address accessibility issues for digital-free tourism | Fear of missing out, withdrawal, technology addiction |
| How do tourists balance desires for digital connectivity and isolation through mobile usage behaviors during trips aimed at relaxation and well-being? | Examine connectivity and/or isolation tension during well-being tourism | Personal values, social norms, self-control |
| What models can conceptualize technology addiction recovery journeys leveraging alternatives like nature and mindfulness-based tourism? | Conceptual models for tech addiction recovery via tourism | Stages of change, technology acceptance, flow |
| How can digital detox retreat and/or tourism designs be developed and assessed to benefit diverse demographic profiles and their well-being needs? | Develop and evaluate tailored detox retreats | Personalization, wearables, longitudinal tracking |
| What are millennials' experiences disconnecting from technology and reconnecting with nature during ecotourism trips? | Understand millennial digital detox experiences | Identity expression, social capital, environmental attitudes |
| How do cultural factors influence intentions for engaging with digital-free tourism experiences internationally? | Examine cultural differences in digital-free tourism | Individualism vs collectivism, uncertainty avoidance, long-term orientation |
| What motivations drive specific age cohorts' perceptions and behaviors around technology while traveling to improve well-being? | Motivations around tech and well-being tourism by age | Generational stereotypes, technology biases, life stage factors |
| How can mixed longitudinal methods illuminate how constructs around technology-free tourism evolve and influence well-being? | Longitudinal methods to study tech-free tourism | Surveys, interviews, ethnography, big data analytics |
| What societal impacts result from adopting disconnected travel, and how can tourism planning optimize health and social outcomes? | Societal impacts of disconnected travel | Economics, policy, sustainability, social capital |
| What are the implications of virtual tourism experiences like webcams on different viewers' well-being globally? | Effects of virtual tourism on well-being | Psychological needs, cultural values, digital inequalities |
| What effect do technology-assisted mindfulness practices have on wellbeing-focused tourism product creation? | Tech-assisted mindfulness for wellbeing tourism | Neuroscience, presence, experiential design |
| How do emerging digital experiences like the metaverse influence new tourism and wellness designs centered around reconnection? | Metaverse implications for reconnection tourism | Augmented reality, mixed reality, gamification |
| What characteristics define portrayals of tourism unplugging and digital detox in media discourses and tourism metaverse? | Portrayals of unplugging in media and/or metaverse | Authenticity, embodiment, ethics, nationalism |

(continued)

Table 3 Continued

| <i>Question</i> | <i>Potential contribution</i> | <i>Concepts that could be addressed for each question</i> |
|---|---|---|
| How do travelers negotiate tensions between connectivity desires and needs for isolation and relaxation differently during tourism? | Examine negotiation of connectivity vs isolation | Coping strategies, motivation theory, personality factors |
| What are the diverse practices among backpackers regulating digital avoidance and reconnection globally? | Digital avoidance practices of backpackers | Mindfulness, social inclusion, slow travel ethos |
| How might virtual reality technologies prolong vacation-induced improvements to well-being psychologically? | VR to extend well-being from vacations | Presence, embodiment, positive psychology |
| What factors drive tourism industry workers' intentions to engage in digital-free tourism experiences for better work-life balance? | Drivers of digital-free tourism for industry workers | Work-life balance, burnout, organizational culture |
| How do tourism enterprises optimize practicing mindful, technology-assisted activities to benefit organizational well-being? | Mindful tech activities for organizational well-being | Leadership, employee empowerment, positive computing |
| What niche tourism concepts centered around disconnecting warrant a broader contextualized understanding of well-being benefits? | Broader understanding of niche disconnecting concepts | Forest bathing, dark sky tourism, retreats, pilgrimages |
| How do tourism infrastructure and provisioning enable the well-being benefits of periodic unplugging and reconnecting with nature? | Tourism infrastructure for unplugging benefits | Nature access, community orientation, activity provisions |
| What does accessibility for digital-free tourism experiences look like for disabled and impaired segments of the population? | Digital-free tourism accessibility | Inclusive design, adaptable technologies, progressive enhancement |
| How can emerging destinations achieve environmental and social resilience through approaches like digital detox tourism? | Detox tourism for destination resilience | Community participation, sustainable development, governance |
| What unstudied cultural contexts reveal concerning relationships between digital technologies and well-being during tourism? | Digital tech and/or well-being in unstudied cultures | Indigenous paradigms, critical theory, postcolonialism |
| What qualitative methods can elucidate little-known experiences around topics involving disconnection and well-being? | Qualitative methods for disconnection | Phenomenology, ethnography, grounded theory, narrative |
| How can perspectives like ecofeminism reimagine framing technology's role in individual autonomy and reconnection through tourism? | Ecofeminist framing of tech, autonomy, reconnection | Embodiment, environmental justice, care ethics, activism |

Source(s): Table created by authors

approaches benefitting well-being and inclusion (Clark and Nyaupane, 2023; Coca-Stefaniak, 2021; Hjalager and Flagestad, 2012). Scholars also may conduct mixed-methods longitudinal studies examining changing perceptions and behaviors across trips among different generations which help identify strategies to overcome participation barriers (Clark and Nyaupane, 2023). This user-centered research has relevance for both technology designers and tourism businesses seeking to better serve diverse demographics (Arenas Escaso *et al.*, 2022; Floros *et al.*, 2021).

Another promising avenue is examining how different generations' constraints in participating in digital-free tourism can be mitigated through tailored strategies. Prior work notes barriers like fear

of missing out and technology addiction vary across age cohorts; however, more nuanced research is needed exploring intra-generational differences based on factors like life stage and personal values. Mixed-methods longitudinal studies examining changing perceptions and behaviours across trips would help identify naturally occurring coping strategies. Tourism boards could then promote inclusion by highlighting diverse success stories, targeting messaging by demographic and partnering with local groups to develop age-appropriate alternative activities. For businesses, the findings could guide user-centered technology and service designs to overcome participation barriers.

A further topic deserving exploration is how constructs around technology-free tourism evolve and influence well-being. While past studies provide insights at single points, leveraging mixed qualitative-quantitative longitudinal methods through ethnographic interviews, experience sampling and collaborative diarying would generate a deeper process-level understanding of changing motivations, struggles and outcomes. This could facilitate conceptual models of associated journeys and stages. Tourism operators are poised to develop adaptive curricula, products and marketing catering to travelers' fluctuating needs, facilitating the maintenance of well-being gains post-trip. The iterative insights also inform technology vendors' features, promoting long-term behavior change.

Table three outlines potential research questions that could be explored related to tourism digital detox and digital-free experiences and suggests concepts that could be addressed under each question. The questions aim to understand various tourist motivations, experiences, well-being outcomes and societal implications related to disconnecting from technology and engaging in tech-free tourism. The suggested concepts reflect relevant psychological theories, sociocultural factors, tourism models and methodological approaches that could provide valuable lenses for investigating each research question. For example, examining the role of technological attributes draws on concepts like immersion and interactivity while exploring generational constraints involves notions of technology addiction and fear of missing out. The table indicates how qualitative, quantitative and mixed methods could offer insights into different questions. The table summarizes and conceptualizes the diverse individual, industry, societal and methodological considerations that warrant further investigation within tourism experiences focused on digital detox, nature reconnection and well-being enhancement.

6. Conclusion

This research aimed to map the current knowledge regarding digital well-being and digital detoxification in the tourism sector. Given the trajectory of tourism's increasing digitization and societal technology dependence, illuminating factors shaping travelers' device relationships during experiences is vital. A systematic literature review and bibliometric analysis met this overarching goal. The systematic review allowed for a comprehensive synthesis and thematic organization of critical concepts introduced across multiple studies, such as digital-free tourism, technostress, selective unplugging and place-based wellness activities. The analysis revealed leveraged theoretical frameworks, including Foucault's power dynamics and locus of control theory. It also identified evolving terminology like digital natives and virtual experiences resulting from technological progressions.

To complement the review, a bibliometric examination was conducted through co-word mapping, clustering and bibliographic coupling. This visualization approach detected prominent and developing fields of inquiry, including digital detox holidays and Millennials' technology perceptions, requiring further empirical scrutiny. However, less robust associations evident between digital trends and broader societal impacts pointed to a research limitation. Notably, limitations were widely acknowledged across existing approaches, like reliance on narrow demographics and self-reported data instead of actual behaviors. Constraining analyses to specific periods or contexts also restricted generalization potential. Future pathways could help mitigate these constraints by deploying broader sample profiles, mixed longitudinal methodologies

and comparative designs spanning industries and cultures. Addressing research caveats holistically will be integral to refining comprehension of technology's complex intersections with tourism experiences amid digital transformations. Overcoming constraints represents a pressing task as destinations increasingly prioritize well-being promotion through responsible technology integration catering to travelers globally.

The current study's contribution shows that recent scholarship indicates an emerging focus on digital detox tourism and technology-free travel experiences (Arenas Escaso *et al.*, 2022; Cai and McKenna, 2023). However, there remain knowledge gaps around tourist motivations, generational perspectives, cultural factors and impacts on well-being (Clark and Nyaupane, 2023; Conti and Farsari, 2022; Floros *et al.*, 2021). This study provides a novel theoretical contribution by adopting diverse theoretical lenses to gain richer insights into this phenomenon. Drawing from positive psychology (Rahmani *et al.*, 2023), critical theory (Mura and Wijesinghe, 2023) and integrative models (Choi *et al.*, 2022), rather than solely relying on technology adoption theories (Tanti and Buhalis, 2017), allows for a more comprehensive conceptualization of tourists' desire for periodic disconnection and nature reconnection (Egger *et al.*, 2020; Zhang and Zhang, 2022). Specifically, examining the role of technology in embodiment, authenticity and ethics (Li *et al.*, 2018; Stäheli and Stoltenberg, 2022) provides valuable new perspectives on motivations for digital detox travel. Further conceptual development and empirical testing through qualitative, quantitative and mixed methods (Knani *et al.*, 2022; Syvertsen, 2022) are needed to investigate these emerging issues from these integrated theoretical viewpoints rigorously.

The findings suggest a growing demand for managerial implications from tourists for digital detox offerings such as tech-free retreats and nature immersion holidays. If the industry better understands the motivations and preferences around these experiences, it provides several opportunities to benefit tourism enterprises. Collaboration between tourism operators and wellness professionals could help design and market dedicated digital detox experiences that cater to tourist needs. Providing some controlled technology access may also help ease the transition to disconnection. Any new offerings must consider sustainability through monitoring environmental impacts and engaging local communities. Emerging technologies could be leveraged to supplement physical trips, while online content accurately portrays the benefits of unplugging. Tourism policy and planning would do well to facilitate infrastructure, enabling both disconnection and reconnection in appropriate locations. Further research in this area can provide valuable guidance to industry stakeholders on ethically developing and promoting technology-free experiences. This allows both individual well-being and destination competitiveness to be enhanced.

Thus, the findings also suggest this research has relevance for the future of tourism. A growing demand is indicated for digital detox-oriented experiences that support escapism from technology stress. If tourism providers comprehend the motivations driving this phenomenon, new opportunities emerge. Operators could design and market dedicated trips catering to the need to unwind from device usage. Welcoming controlled access may smooth the transition to disconnection. Research in this domain can guide ethically developing such offerings while considering community engagement and environmental stewardship. Promoting the benefits of pausing tech use sensitively leverages emerging technologies as a supplement rather than replacement for in-person travel. With individual wellness and destination competitiveness both enhanced, further scholarship in this area stands to meaningfully assist industry progress.

Importantly, adopting mobilities, place attachment, performativity and temporality perspective promises to provide novel insights into digital detox tourism. For mobility, examining how individuals negotiate the movement away from constant digital connectivity during travel and the interplay with their broader virtual, physical and imagined mobilities could yield valuable understandings. Qualitative research leveraging mobility diaries, interviews and ethnography could illuminate experiential themes regarding the mobility of the digital self-versus movement through physical spaces. Investigating place attachment formation during digital detox experiences offers conceptual contributions. Comparing attachments across individuals may

indicate how destinations shape technology relationships differently. Place scholarship offers ways to conceptualize experiential value co-creation benefiting individuals and destinations by promoting and developing a technology-free tourism model.

Adopting lenses of performativity and temporality also can provide rich insights. Examining digital detox tourism through a performativity viewpoint allows analysis of how individuals negotiate and express their relationship with technology within various social contexts encountered during travel. Meanwhile, a temporal framework analyzing how the timing and rhythms of digital abstinence impact effectiveness offers dynamic perspectives. Time-use diaries and experience sampling could expose experiences as unfolding processes with shifting emotions and coping strategies over vacation periods. Theorizing disconnection experiences through performativity illuminates social dimensions, while a temporality conceptualization provides a nuanced view of dynamic temporal nature and outcomes.

7. The study limitation

While this research synthesized a breadth of literature and identified future research avenues, certain limitations must be acknowledged. The systematic review was constrained by only including English publications within selected databases, potentially excluding studies due to language or source biases. Additionally, the rapid technological changes rendered initial formative works published before 2012 outdated for analysis. The bibliometric examination also faced keyword, journal, year and database selection constraints, where key literature in other indexing categories may have been missed. Recognizing the diversity of research paradigms within tourism studies is important. Quantitative surveys aim for generalizability from a positivist lens, but qualitative methods prioritize interpretivist understandings through small, in-depth samples. Focusing on intentions may elucidate decision-making processes preceding behaviors when paired with qualitative exploration. Moreover, different methodologies offer unique insights contingent on their philosophical assumptions. While limitations arise from quantitatively measuring behaviors over intentions, qualitative research mitigates such constraints through rich exploration of personal experiences and motivations. Rather than critique alternate approaches, the current study's constraints are contextualized alongside diverse ways of knowing within the field. Future investigations could incorporate mixed methods or targeted qualitative inquiries, such as in-depth interviews, to gain textured perspectives on digital detox tourism from varied methodological stances. Considering pluralistic stances holistically stands to broaden understanding of this evolving domain. Ongoing recognition of limitations also stimulates methodological evolutions within this vibrant research space.

Further research in this area would provide several practical benefits to the tourism sector. While existing studies have begun exploring motivations for digital detox travel, additional conceptual development and empirical testing are still needed across diverse cultural contexts and generational groups. Addressing current research limitations around sample size and methodology would help generalize findings. Examining the impacts of technology use and disconnection on tourist well-being through mixed longitudinal approaches could offer valuable insights for experience design. A greater understanding of motivations from integrated theoretical lenses can also guide strategic product development and marketing digital detox offerings tailored to traveler needs. This would open new opportunities for tourism businesses to cater to the growing demand for wellness experiences.

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