

Travel sentiment after COVID-19

Subjects: Others

Contributor: Maria Teresa Borges Tiago, Sandra Silva, Sónia Avelar, Joao Couto, Flávio Gomes Borges Tiago

Tourism and hospitality actors face an unprecedented challenge in reigniting these industries through digital communication. All past knowledge regarding tourist behavior and preferences has been rendered less relevant since the outbreak of the COVID-19 pandemic. These changes result in enforced changes that need to be acknowledged. Several reports have pointed to the existence of a travel sentiment. This travel sentiment integrates the travel intentions and concerns, and trip planning which can be actionable by digital communication.

Keywords: COVID-19 ; tourism motivation ; online communication ; healthcare policy ; travel sentiment ; travel concerns ; trip planning ; tourism digitalization

1. Introduction

Tourism was one of the industries most affected by the COVID-19 pandemic ^[1]. Yet, during the lockdown, governments, healthcare managers, and epidemiologists, as well as entrepreneurs and individuals worldwide, planned and dreamed of their next steps, reflecting their resilience and desire to return to their previous lives ^{[2][3]}.

The reopening of tourism activities has differed worldwide, reflecting each government's concern about ensuring public health and safety. It has also highlighted the capabilities of digital communication related to health and safe destinations ^[4]. Hu et al. ^[5] noted that social media has become a relevant information source for consumers, specifically tourists searching for their destinations' health guidelines and restrictions. However, not all online virtual communities provide safe access to reliable information ^[6], highlighting the need to promote information-quality assessment models.

In the current scenario, as an increasing number of people begin to travel again, it is important to understand that, as pointed out by several authors, consumers' behaviors have changed as a result of the COVID-19 pandemic in several ways ^{[7][8][9]}. Some of these changes remain unexplored and need evidence to support their relevance ^[10]; outside academia, new concepts are being presented and adopted to guide digital communication ^[11]. Moreover, the reflections and research conducted within academia and those performed by consultancy firms use different designations for similar phenomena. Thus, instead of helping tourism and hospitality firms to improve their knowledge and capabilities of designing target digital communication, this has led them to produce less useful and undifferentiated communication strategies. One of these concepts is that of travel sentiment, which reflects the tourist's willingness to travel and is reported in non-academic reports as the composite of travel intentions, trip planning, and travel concerns. Unfortunately, within academia, the studies related to tourists' sentiment regarding travel focus on airline traveling ^[12], leaving this travel sentiment trilogy-based model untested.

2. Tourism and the COVID-19 Pandemic

Sigala ^[13] believes that "COVID-19 tourism research should also challenge our growth paradigms and assumptions that have led to the current situation and enable us to reimagine and re-set tourism" (p. 313). Thus, this work revisits the connection between tourism and technology, specifically that of social media and its implications in information-searching patterns ^{[14][15][16]}, and adds the destination health conditions that seem to be essential for understanding these travel behaviors and motivations.

As Abdullah et al. ^[14] recalled, over the past two years, countries have implemented distinctive degrees of restrictions to prevent and constrain the spread of the virus. Given the public health emergency triggered by the proliferation of COVID-19, it was urgently necessary to define and implement feasible measures to contain the spread of SARS-CoV-2. Initially, social distancing and confinement strategies were adopted to reduce the transmissibility of the virus, before pressure on the world's economic, social, and health systems was gradually alleviated. However, with this first line of intervention, a new phase was initiated. Health organizations began to project a conduct transition, building a public health strategy as an alternative to confinement. Considering the complexity and the need to prolong this process, this new phase was a huge challenge, but it opened the doors to restarting tourism at a national/domestic level.

During this period, many countries organized classification systems that established alert levels according to the epidemiological situation, for which they defined a set of measures adjusted to each level. The introduction, adaptation, or even suspension of these criteria was based on developments in scientific knowledge and the pandemic, the transmissibility index of the SARS-CoV-2 virus, access conditions and the responsiveness/adaptation of health systems, local contexts, and the implications of measures for the wellbeing of the community and people. However, this framework of the different levels lacked a benchmark of criteria that would support a transition between them. Therefore, it was necessary to share scientific evidence that supported the choice of measures implemented and the prior involvement of communities in the planning and management of these measures, to increase the degree of trust and adherence. As Gössling et al. ^[17] noted, this health condition affected tourism in many ways, including changing mobility patterns and travel motivations, thereby giving domestic tourism a new role in post-COVID-19 economic recovery.

Throughout the world, several measures were implemented related to personal protection (hand hygiene, respiratory labels, mask use, physical distancing, avoidance of crowded environments), the environment (cleaning, disinfection, ventilation), containment (isolation, quarantine, passive surveillance of positive cases), the empowerment of communities (involvement of the media as a determining partner in the sharing of credible and timely information, promotion of health literacy through events in a webinar format), and epidemiological surveillance (mass testing, testing suspected cases, tracing contacts, active surveillance of identified cases, determining the origin of/locating active transmissions, classifying the type of transmission, conducting a serological assessment of the incidence of infection, and calculating the total number of identified cases, cases in the last 24 h, and recovered patients). This complex system was necessary to overcome the propagation of the virus and diminish uncertainty, to allow the restarting of economies and, more specifically, tourism ^{[15][16][17]}. As Abdullah et al. ^[14] noted, all these changes point to a significant modification in the primary purpose of traveling. Moreover, Falahuddin et al. ^[18] posit that global health policies and those measures taken to contain COVID-19 have altered risk perception, especially in those that concern international traveling and, consequently, travel motivations and intention.

3. Travel Motivations and Travel Sentiment

Although this health crisis may have profoundly impacted tourists' views and feelings ^[19], the importance of traveling remains strong, even if some changes are needed. These changes are reflected in how—and more importantly, why—people travel in an uncertain post-pandemic environment ^[18]. In general, travel behavior and tourism motivation focus on the tourists and their decision-making process when booking a holiday. By examining consumer behavior, one can acquire information on the different steps a tourist takes before booking a trip and how their background influences their decision-making ^{[20][21]}. Tourism motivation reflects tourists' behaviors, preferred activities, and reasons for travel ^[21].

Tourism motivation is a state of need or a condition that causes the tourist to take a holiday that is likely to bring satisfaction by addressing the said state of need or condition. Tourism motivation elucidates why people want to travel, the destination-choice motive, and the specific activities engaged in while on holiday ^[20].

Motivations to travel have long been a research subject of interest. Several psychological and sociological theories of motivation have provided essential data about the reasons why people travel ^[21].

The adverse impact of the pandemic might have affected a change in people's motives to travel ^[22], as external events or crises frequently change travel motivations ^[23]. Aebli, Volgger, and Taplin ^[23] found that hygiene factors characterized tourists' travel motivation during the COVID-19 crisis; in fact, tourists consider the potential risks of traveling in their decision-making, along with their travel motives ^[18]. Aebli, Volgger, and Taplin ^[23] adopted Herzberg's theory of motivation as a framework for considering the benefits and risks of travel. What tourists equate as healthy and safe is now of primary concern; their willingness to travel is modeled by their risk awareness ^[18]. When considering the different perspectives and their evolution over time, several travel motives are linked to novelty-seeking, escape/relaxation, self-development, and relationships. Camilleri ^[24] regrouped these motivations into four dimensions: physical, cultural, personal, and prestige and status. More recently, as Miao et al. ^[16] found, social distancing and voluntary de-crowding behavior could also be considered to influence traveling. Abdullah et al. ^[14] added perceived risk and fear of infection to this list.

As previously noted, evidence shows that travel motivation influences people's visit intention. The same is true for the perceived risks and travel constraints that influence travel intention ^[25]. Godovykh et al. ^[26] explored the perceived risks after the pandemic. These authors acknowledged risk perceptions as a multi-dimensional construct encompassing financial, political, social, psychological, physical, and health risks. Khan et al. ^[25] found that not all perceived risks have the same influence: perceived travel risks, performance, and time risks had negative effects, while physical, financial, and socio-psychological risks have a neutral impact. According to Godovykh et al. ^[26], health risk perceptions remain less widely explored. According to these authors, health risk perception underlies "people's knowledge and understanding of

the disease, personal experience and trust” (p. 740). Nonetheless, considering the findings of Yu et al. [19], it is unsurprising to find that tourists use social media as a source of information related to COVID-19 and as a social support network during uncertain times. Moreover, social media usage will positively affect travel intention, travel concerns, and trip planning, since traveler information-seeking behavior can influence the overall travel decision-making process.

Travel constraints have been widely researched in terms of the tourist field [27]. However, the pandemic scenario has enhanced some of the dimensions of this equation that need to be revisited. Among travel constraints, interpersonal and intrapersonal risks and limitations were considered to be negatively related to visiting intention [25]. Wilson and Chen [28] added the travel elements and safety and health policies and regulations at the origin and destination countries. Sánchez-Cañizares et al. [29] also considered the effect of financial risks perception as a concern when traveling. To these authors, the financial risks were related to unexpected expenses due to this new reality. However, financial risks can also occur due to cancellation or rescheduling needs [30].

In the early pandemic situation, potential tourists tended to postpone their traveling plans. Afterward, the trip planning assumed a new configuration, considering the travelers’ perceived risks and new traveling patterns [14][18][31].

Apart from academic studies, several surveys have been conducted worldwide to determine the reasons influencing the choice of a destination, accommodation, transportation, and travel intention origin of the so-called travel sentiment. **Figure 1** presents the evolution of travel sentiment since early 2020.

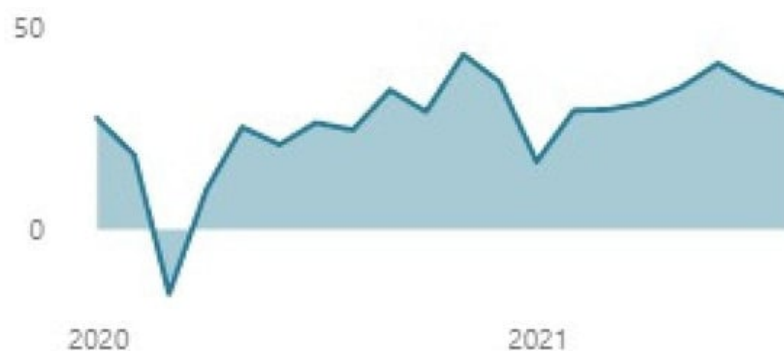


Figure 1. Travel sentiment evolution. Source: UNWTO Tourism Recovery Tracker, retrieved from <https://www.unwto.org/unwto-tourism-recovery-tracker> accessed on 23 October 2021.

This concept of travel sentiment integrates three dimensions that are already considered in the literature but not always assessed together: travel intentions, trip planning, and travel concerns [31][32][33] (see **Figure 2**). Moreover, although firms acknowledge the concept of travel sentiment, it has not been tested with other variables known to affect tourist behavior, which is a gap that the present study aims to address.

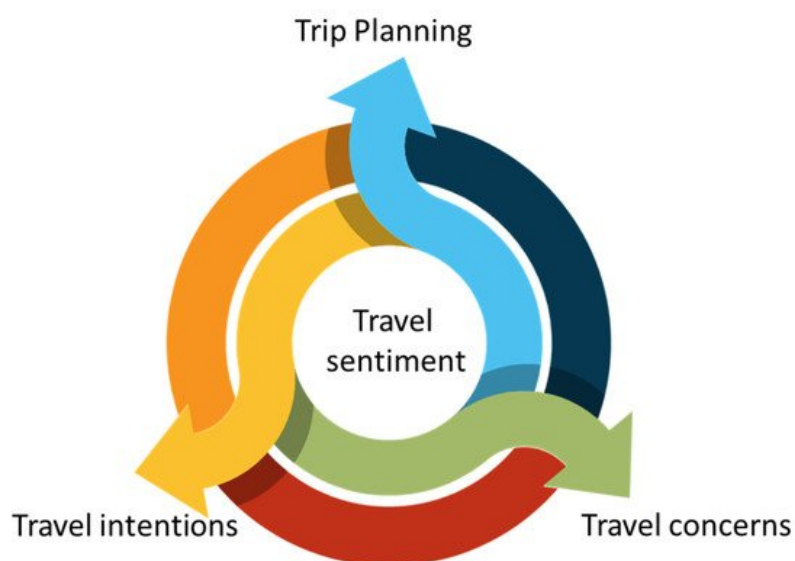


Figure 2. Travel sentiment construct.

Many studies have been conducted in the tourism and hospitality field related to travel sentiment analysis [34]. Nonetheless, these studies focus on assessing the feelings expressed by tourists on different platforms, using opinion-mining and sentiment analysis techniques. Therefore, although semantically similar, the travel sentiment considered in

this research does not correlate with the feelings expressed in reviews. Instead, it elucidates the actual willingness to travel. Unfortunately, as far as the authors know, no investigation has been produced to validate the present travel sentiment model.

4. Tourism, Technology, and Digital Communication

The tourism industry has been dependent on technology for various purposes, ranging from digital communication to service innovation. The latter has evolved from in-room entertainment to interactive systems (e.g., self-check-in kiosks) [35]. This shows that the industry is constantly exploring new technological innovations to improve its offers (e.g., provider sites and mobile phone applications) [36]. Much of the production and delivery of tourist goods and services is now in the process of being fully automated [37] and is generating positive responses from tourists [38].

To Sigala [13], Tourism 4.0 can be referred to as a new ecosystem of tourist value, built on a paradigm of highly technology-based service production and supported by the common principles of Industry 4.0. This ecosystem relies on several components, such as interoperability, virtualization, decentralization, real-time data collection and analysis capability, service guidance, and modularity [39], where technology is used to improve tourist–firm interactions and experiences [40][41].

Various new technologies have also been applied in tourism, such as the Internet of Things (IoT), big data analytics, artificial intelligence (AI), blockchain, location-based services or virtual systems, and augmented reality [39][41]. Several new technologies to support Tourism 4.0 already exist, such as autonomous agents and things (e.g., intelligent voice assistants or autonomous cars) [42] and anthropomorphic service robots [37][43].

Since the introduction of the Internet to the business arena, information technology (IT) has been an important facilitator, catalyst, and—in some cases—disruptor for travel and tourism [41][44][45].

This is particularly true in today's world, as IT has been introduced into all travel and tourism processes, every interested party in tourism, and every subdomain of the industry [41][44][45][46].

In addition, mobile usage has dramatically changed tourism behaviors and business processes in hospitality and tourism [47][48]. Law et al. [49] believe that the widespread adoption of mobile technologies by consumers for travel-related purposes has resulted in the development of relevant mobile information services, including mobile electronic tour guides or application-based mobile tourism guides, mobile payment using near-field communication technologies, and global positioning systems to conduct location-based marketing.

The current COVID-19 pandemic has accelerated technological advancements [50]. Some tourism organizations have switched to virtual solutions to satisfy people's desire for travel, such as virtual tours. However, the long-term effects of recent advances in visual and immersive technologies remain unknown [51].

Although physical tourism has almost come to a halt, past and potential tourists have been busy remembering past trips on social media or dreaming of future vacations, browsing through destination websites. Museums have opened virtual doors to their exhibits, social media travel influencers continue to produce content, and tour providers use a series of online channels to maintain their relationships with customers [50].

The industry has never before experienced such unprecedented, global restrictions, to the point where tourism companies are pressured to find a way to innovate for survival. It is, therefore, crucial to deliberate on how tourism can continue to remain resilient, sustainable, and eventually thrive in a post-pandemic world [3][52].

One possibility is the intensification of extended reality in tourism, using immersive technology. Extended reality is an umbrella term for an entire spectrum of immersive technology-assisted realities (e.g., virtual reality (VR), augmented reality (AR) [53], augmented virtuality (AV), mixed realities (MR), and future realities [52].

The reopening of tourist destinations and the economy implies using new technologies to ensure health and safety (e.g., mobility tracking applications, robotic contactless services, digital health passports and identity controls, social distancing technologies, and crowding management). On the other hand, there is a need to collect and analyze personal data for rapid decision-making (e.g., big data for quick and real-time decision-making). Other technologies involve robots that provide materials, disinfect and sterilize public spaces, detect or measure body temperature, and provide safety [13].

A report from the World Travel and Tourism Council highlighted contactless technologies as a prerequisite for a safe and seamless travel experience [54]. In addition, post-COVID-19, technology will have to accommodate changes in not only consumer behavior (e.g., risk perceptions, last-minute bookings, and early bookings in new contexts such as museums,

highlighting the need for highly customized packages) but also the inter-action modus (e.g., from physical touch to voice input or automated detection) [50].

However, not everyone has access to technology and can afford to travel in the future, as rising operating costs (hygiene and technology) and transport oligopolies can increase tourism costs. Similarly, digital inequalities in the tourism business increase economic disparities in the competitive tourism landscape (e.g., larger companies/destinations characterized by increased cash liquidity, know-how, technological readiness, and resilience are less vulnerable to COVID-19, and are likely to survive and thrive after COVID-19) [55]. At this point, the value of technology usage, such as automation technologies, robots, and virtual/augmented reality, is questionable as a driver of travel willingness. Moreover, technology can be explored as an automation tool and as a communication and interaction tool.

Although the use of technology has increased during the pandemic, its adoption in tourism is not entirely new (see **Figure 3**). Thus, as these technologies proliferate [46], revealing who, when, what, and why they impact, it is important to note the different contexts in the tourism and hospitality industry within which they are used [56].

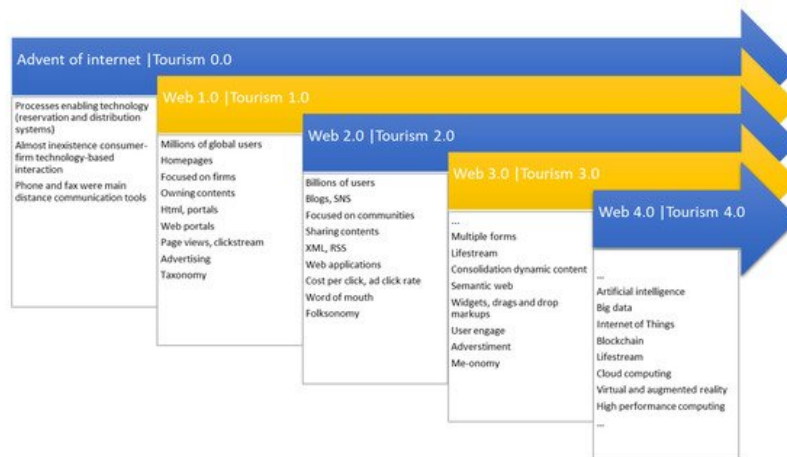


Figure 3. Digital empowerment in tourism. Source: adapted from Tiago et al. [57].

The most substantial changes occurred after Web 2.0, when users were empowered with a set of content-creation tools that shifted the communication paradigm [58][59]. During the last two decades, they have become active online searchers and creators of all kinds of information. As noted by Fotis et al. [60], the use of social media reflects and influences tourists' perceptions, attitudes, behaviors, and shopping requirements. Moreover, social media provides an ecosystem in which information flows faster and is amplified so that organizations can be noticed via small investments and in short time periods. As social media grows, communication strategies are increasingly tailored to target digital users on different platforms [61]. Thus, developing effective and engaging communication on social media is an ongoing challenge for tourism and hospitality firms [59][62], one that relies on identifying tourist behavior, co-creating experiences, and transforming big data into actual knowledge [63].

In general, since the COVID-19 pandemic, numerous behavioral changes among consumers, related to the use of technology and social media, have been noted [8][9]. Nonetheless, not all consumers present the same behavioral changes, and social media alters how the Internet is used as both a communication channel and information repository [64]. For example, before 2020, people used social media to share their travel experiences under a broad set of motivations and tended to rely on social media as a credible information source [65]. However, in this new scenario, social media has become a source of health information that flourishes without any supervision, where credible information is presented side by side with fake news, affecting consumer trust in the available information [66].

Hysa et al. [64] identified four everyday activities conducted by tourists over social media that are not influenced by age cohorts:

- Planning a trip;
- Acknowledging the destination's cultural and natural heritage;
- Finding more problematic activities or issues related to the trip; and
- Revealing the roots of the establishment of community relationships.

However, several differences were compiled within these four blocks, since not all tourists value the same peer opinions and trust the information available online [67].

Considering the relevance of social media to tourism as an information source that affects travel intention and planning a trip, evidence reveals that social media also becomes a space to dream about future trips [66] and pursue new innovative service models [15][54][64].

Searching for and sharing information online, especially on social media, are the cornerstones of the present and future digital communication models [11]. In the past, digital communication assumed the format of one-way communication; however, with Web 2.0, it shifted to an interaction paradigm [58] that benefits both firms and consumers [43][57]. Thus, digital communication can assume four different configurations that need to be considered simultaneously (see **Figure 4**).

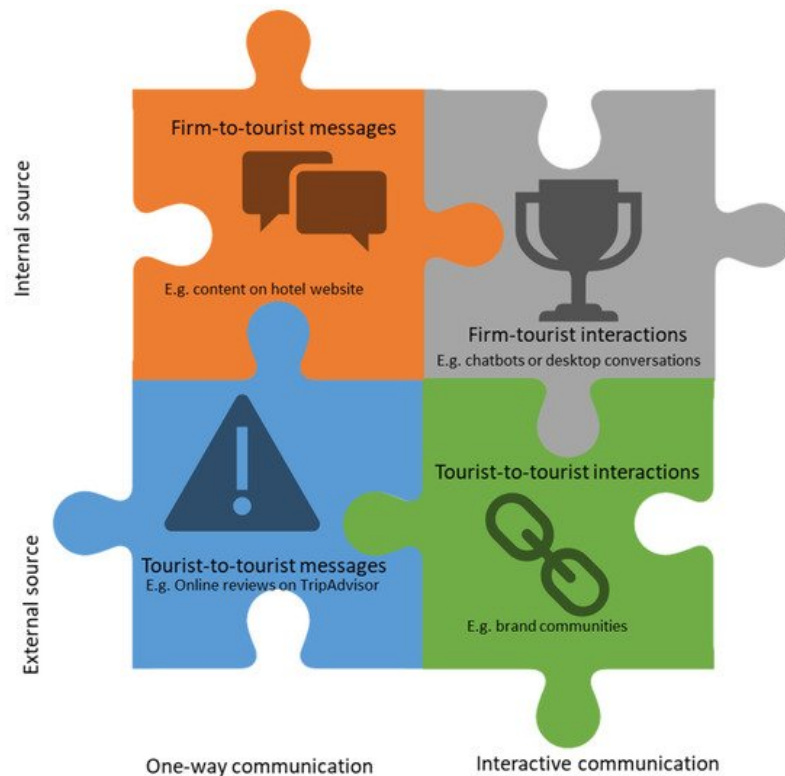


Figure 4. Digital communication dynamics. Source: Adapted from Grewal et al. [11].

Digital communication evolves into new and more complex branches [7][61][68] to meet the needs of customers [11], who inevitably grow and change over time, due to the accumulation of experiences and interactions not only as tourists but also as people [8][16].

The roles of social media and digital communication will increase in the near future and impact tourism and hospitality firms [59], allowing them to reach current and potential tourists [64]. Moreover, this will enable firms to reach out to those who are interested and reignite their wish to travel with trustworthy messages [7].

Thus, understanding and predicting travel behaviors are vital to ensure successful digital communication [68], which minimizes tourists' travel health concerns and fosters travel intention and sentiments.

References

1. Becker, E. How Hard Will the Coronavirus Hit the Travel Industry. National Geographic 2020. Available online: <https://www.nationalgeographic.com/travel/2020/04/how-coronavirus-is-impacting-the-travel-industry/> (accessed on 13 July 2021).
2. Jones, P.; Comfort, D. The role of resilience in research and planning in the tourism industry. *Athens J. Tour.* 2020, 7, 1–16.
3. Sharma, G.D.; Thomas, A.; Paul, J. Reviving tourism industry post-COVID-19: A resilience-based framework. *Tour. Manag. Perspect.* 2021, 37, 100786.
4. Machado, A.F.; Sousa, B.B.; Rocha, A.M.A.; de Abreu, Z.H.L. Education Excellence and Innovation Management: A 2025 Vision to Sustain Economic Development during Global Challenges; Communication Strategies to Combat the

Negative Effects of Covid-19 on Tourism; International Business Information Management Association: Sevilla, Spain, 2020; pp. 10997–11005.

5. Hu, F.; Teichert, T.; Deng, S.; Liu, Y.; Zhou, G. Dealing with pandemics: An investigation of the effects of COVID-19 on customers' evaluations of hospitality services. *Tour. Manag.* 2021, 85, 104320.
6. Fonseca, J.; Borges-Tiago, T.; Tiago, F.; Silva, S. Virtual Communities in COVID-19 Era: A Citizenship Perspective. In *Strategic Innovative Marketing and Tourism in the COVID-19 Era*, Proceedings of the 9th ICSIMAT Conference, Online, Greece, 2020; Springer International Publishing: New York, NY, USA, 2021.
7. Arens, E. How COVID-19 Has Changed Social Media Engagement. Available online: <https://sproutsocial.com/insights/covid19-social-media-changes/#volume-updates> (accessed on 17 July 2020).
8. Sheth, J. Impact of Covid-19 on consumer behavior: Will the old habits return or die? *J. Bus. Res.* 2020, 117, 280–283.
9. Theodoridis, P.K.; Kavoura, A.; Theodoridis, P.K.; Kavoura, A. The Impact of COVID-19 on Consumer Behaviour: The Case of Greece. In *Strategic Innovative Marketing and Tourism in the COVID-19 Era*, Proceedings of the 9th ICSIMAT Conference, Online, Greece, 2020; Springer International Publishing: New York, NY, USA, 2021.
10. Chan, C.-S. Developing a Conceptual Model for the Post-COVID-19 Pandemic Changing Tourism Risk Perception. *Int. J. Environ. Res. Public Health* 2021, 18, 9824.
11. Grewal, D.; Herhausen, D.; Ludwig, S.; Ordenes, F.V. The future of digital communication research: Considering dynamics and multimodality. *J. Retail.* 2021.
12. Lamb, T.L.; Winter, S.R.; Rice, S.; Ruskin, K.J.; Vaughn, A. Factors that predict passengers willingness to fly during and after the COVID-19 pandemic. *J. Air Transp. Manag.* 2020, 89, 101897.
13. Sigala, M. Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *J. Bus. Res.* 2020, 117, 312–321.
14. Abdullah, M.; Dias, C.; Muley, D.; Shahin, M. Exploring the impacts of COVID-19 on travel behavior and mode preferences. *Transp. Res. Interdiscip. Perspect.* 2020, 8, 100255.
15. Shamshiripour, A.; Rahimi, E.; Shabanpour, R.; Mohammadian, A.K. How is COVID-19 reshaping activity-travel behavior? Evidence from a comprehensive survey in Chicago. *Transp. Res. Interdiscip. Perspect.* 2020, 7, 100216.
16. Miao, L.; Im, J.; Fu, X.; Kim, H.; Zhang, Y.E. Proximal and distal post-COVID travel behavior. *Ann. Tour. Res.* 2021, 88, 103159.
17. Gössling, S.; Scott, D.; Hall, C.M. Pandemics, tourism and global change: A rapid assessment of COVID-19. *J. Sustain. Tour.* 2020, 29, 1–20.
18. Falahuddin, A.F.; Tergu, C.T.; Brollo, R.; Nanda, R.O. Post COVID-19 Pandemic International Travel: Does Risk Perception and Stress-Level Affect Future Travel Intention. *J. Ilmu Sos. Ilmu Polit.* 2020, 24, 1–14.
19. Yu, M.; Li, Z.; Yu, Z.; He, J.; Zhou, J. Communication related health crisis on social media: A case of COVID-19 outbreak. *Curr. Issues Tour.* 2020, 24, 2699–2705.
20. Kock, F.; Josiassen, A.; Assaf, A.G. On the origin of tourist behavior. *Ann. Tour. Res.* 2018, 73, 180–183.
21. Heitmann, S. Tourist behaviour and tourism motivation. *Res. Themes Tour.* 2011, 3, 31–44.
22. Iso-Ahola, S.E. Towards a social psychology of recreational travel. *Leis. Stud.* 1983, 2, 45–56.
23. Aebli, A.; Volgger, M.; Taplin, R. A two-dimensional approach to travel motivation in the context of the COVID-19 pandemic. *Curr. Issues Tour.* 2021, 1–16. Available online: https://www.tandfonline.com/doi/full/10.1080/13683500.2021.1906631?casa_token=vuVBzysBpqgAAAAA%3A8aa6nG_j4mAmh6lK2Bly8gbiUkCud167xlbOnlUIQ5hulmftFqk4h1jp7v0zU3k9Aeub_fp6bXczJ (accessed on 23 October 2021).
24. Camilleri, M.A. *Tourism Planning and Destination Marketing*; Emerald Publishing: Bingley, UK, 2019.
25. Khan, M.J.; Chelliah, S.; Ahmed, S. Intention to visit India among potential travellers: Role of travel motivation, perceived travel risks, and travel constraints. *Tour. Hosp. Res.* 2019, 19, 351–367.
26. Godovykh, M.; Pizam, A.; Bahja, F. Antecedents and outcomes of health risk perceptions in tourism, following the COVID-19 pandemic. *Tour. Rev.* 2021, 76, 737–748.
27. Shin, H.; Nicolau, J.L.; Kang, J.; Sharma, A.; Lee, H. Travel decision determinants during and after COVID-19: The role of tourist trust, travel constraints, and attitudinal factors. *Tour. Manag.* 2022, 88, 104428.
28. Wilson, M.E.; Chen, L.H. Restarting travel in the era of COVID-19: Preparing anew. *J. Travel Med.* 2020, 27, taaa108.
29. Sánchez-Cañizares, S.M.; Cabeza-Ramírez, L.J.; Muñoz-Fernández, G.; Fuentes-García, F.J. Impact of the perceived risk from Covid-19 on intention to travel. *Curr. Issues Tour.* 2021, 24, 970–984.

30. Kusumaningrum, D.A.; Wachyuni, S.S. The shifting trends in travelling after the COVID 19 pandemic. *Int. J. Tour. Hosp. Rev.* 2020. Available online: https://www.emerald.com/insight/content/doi/10.1108/JTF-04-2020-0063/full/html?utm_source=rss&utm_medium=feed&utm_campaign=rss_journalLatest (accessed on 23 October 2021).
31. Matiza, T. Post-COVID-19 crisis travel behaviour: Towards mitigating the effects of perceived risk. *J. Tour. Futures* 2020.
32. Koo, C.; Joun, Y.; Han, H.; Chung, N. A structural model for destination travel intention as a media exposure Belief-desire-intention model perspective. *Int. J. Contemp. Hosp. Manag.* 2016, 28, 1338–1360.
33. Wachyuni, S.S.; Kusumaningrum, D.A. The effect of COVID-19 pandemic: How are the future tourist behavior? *J. Educ. Soc. Behav. Sci.* 2020, 33, 67–76.
34. Wang, L.; Kirilenko, A.P. Information and Communication Technologies in Tourism; Do tourists from different countries interpret travel experience with the same feeling? Sentiment analysis of TripAdvisor reviews; Springer Publishing: New York, NY, USA, 2021; pp. 294–301.
35. PAVIĆ, Sandra. The Impact of COVID-19 on Technology in the Hotel Industry. Ph.D. Thesis, RIT, Dubrovnik, Zagreb, Croatia, 2021.
36. Wani, M.; Raghavan, V.; Abraham, D.; Kleist, V. Beyond utilitarian factors: User experience and travel company website successes. *Inf. Syst. Front.* 2017, 19, 769–785.
37. Seyitoğlu, F.; Ivanov, S. Service robots as a tool for physical distancing in tourism. *Curr. Issues Tour.* 2021, 24, 1631–1634.
38. Çakar, K.; Aykol, Ş. Understanding travellers' reactions to robotic services: A multiple case study approach of robotic hotels. *J. Hosp. Tour. Technol.* 2020, 12, 155–174.
39. Pencarelli, T. The digital revolution in the travel and tourism industry. *Inf. Technol. Tour.* 2020, 22, 455–476.
40. Stankov, U.; Gretzel, U. Tourism 4.0 technologies and tourist experiences: A human-centered design perspective. *Inf. Technol. Tour.* 2020, 22, 477–488.
41. Borges-Tiago, T.; Veríssimo, J.; Tiago, F. Smart tourism: A scientometric review (2008–2020). *Eur. J. Tour. Res.* 2021, 30, 3006.
42. Cohen, S.A.; Hopkins, D. Autonomous vehicles and the future of urban tourism. *Ann. Tour. Res.* 2019, 74, 33–42.
43. Murphy, J.; Gretzel, U.; Pesonen, J. Marketing robot services in hospitality and tourism: The role of anthropomorphism. *J. Travel Tour. Mark.* 2019, 36, 784–795.
44. Werthner, H.; Klein, S. Information Technology and Tourism: A Challenging Relationship; Springer: Vienna, Austria, 1999.
45. Buhalis, D. Technology in tourism-from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: A perspective article. *Tour. Rev.* 2020, 75, 267–272.
46. Xiang, Z. From digitization to the age of acceleration: On information technology and tourism. *Tour. Manag. Perspect.* 2018, 25, 147–150.
47. Wang, D.; Xiang, Z.; Fesenmaier, D.R. Smartphone use in everyday life and travel. *J. Travel Res.* 2016, 55, 52–63.
48. Wang, D.; Park, S.; Fesenmaier, D.R. The role of smartphones in mediating the touristic experience. *J. Travel Res.* 2012, 51, 371–387.
49. Law, R.; Chan, I.C.C.; Wang, L. A comprehensive review of mobile technology use in hospitality and tourism. *J. Hosp. Mark. Manag.* 2018, 27, 626–648.
50. Gretzel, U.; Fuchs, M.; Baggio, R.; Hoepken, W.; Law, R.; Neidhardt, J.; Pesonen, J.; Zanker, M.; Xiang, Z. e-Tourism beyond COVID-19: A call for transformative research. *Inf. Technol. Tour.* 2020, 22, 187–203.
51. Wagler, A.; Hanus, M.D. Comparing virtual reality tourism to real-life experience: Effects of presence and engagement on attitude and enjoyment. *Commun. Res. Rep.* 2018, 35, 456–464.
52. Kwok, A.O.; Koh, S.G. COVID-19 and extended reality (X.R.). *Curr. Issues Tour.* 2021, 24, 1935–1940.
53. Huertas, A.; Gonzalo, J. The Role of Augmented Reality in Destination Branding. *Tour. Hosp. Manag.* 2020, 26, 419–436.
54. Wyman, O. To Recovery & Beyond: The Future of Travel & Tourism in the Wake of COVID-19; WTTC: London, UK, 2020.
55. Susanto, I.; Kiswanto, A. Tourism Branding: A Strategy of Regional Tourism Sustainability Post COVID-19 in Yogyakarta. *IOP Conf. Ser. Earth Environ. Sci.* 2021, 704, 012003.

56. Ivanova, M.; Ivanov, I.K.; Ivanov, S. Travel behaviour after the pandemic: The case of Bulgaria. *Anatolia* 2021, 32, 1–11.
57. Tiago, T.; Couto, J.P.; Tiago, F.; Faria, S.D. From comments to hashtags strategies: Enhancing cruise communication in Facebook and Twitter. *Tourismos* 2017, 12, 19–47.
58. Tiago, T.; Veríssimo, J. Digital marketing and social media: Why bother? *Bus. Horiz.* 2014, 57, 703–708.
59. Borges-Tiago, M.T.; Arruda, C.; Tiago, F.; Rita, P. Differences between TripAdvisor and Booking.com in branding co-creation. *J. Bus. Res.* 2021, 123, 380–388.
60. Fotis, J.; Buhalis, D.; Rossides, N. *Social Media Use and Impact during the Holiday Travel Planning Process*; Springer: Vienna, Austria, 2012.
61. Hennig-Thurau, T.; Hofacker, C.F.; Bloching, B. Marketing the pinball way: Understanding how social media change the generation of value for consumers and companies. *J. Interact. Mark.* 2013, 27, 237–241.
62. Kavoura, A.; Stavrianeas, A. The importance of social media on holiday visitors' choices—The case of Athens, Greece. *EuroMed J. Bus.* 2015, 10, 360–374.
63. Buhalis, D.; Sinarta, Y. Real-time co-creation and nowness service: Lessons from tourism and hospitality. *J. Travel Tour. Mark.* 2019, 36, 563–582.
64. Hysa, B.; Karasek, A.; Zdonek, I. Social media usage by different generations as a tool for sustainable tourism marketing in society 5.0 idea. *Sustainability* 2021, 13, 1018.
65. Sotiriadis, M.D. Sharing tourism experiences in social media: A literature review and a set of suggested business strategies. *Int. J. Contemp. Hosp. Manag.* 2017, 29, 179–225.
66. MacSween, S.; Canziani, B. Travel booking intentions and information searching during COVID-19. *Int. Hosp. Rev.* 2021. ahead-of-print.
67. Tussyadiah, I.P.; Park, S. When guests trust hosts for their words: Host description and trust in sharing economy. *Tour. Manag.* 2018, 67, 261–272.
68. Marton, Z.; Ernszt, I. Omnipresent Social Media: Is Travelling Imaginable without Smart Devices? *Manag. Glob. Transit. Int. Res. J.* 2020, 18, 301–322.

Retrieved from <https://encyclopedia.pub/entry/history/show/38378>