Letter to the Editor

Tourism and the COVID-(Mis)infodemic

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Abstract

In addition to being formally defined as a pandemic, COVID-19 has been classified as an "infodemic" and "(mis)infodemic." As an "infodemic," the information environment on COVID-19 is constantly evolving, with emerging scientific findings, political responses, media coverage, and individual impressions all shared on social media. Initial positions on behaviors and potential treatments were presented and then discarded because of low efficacy or improper research procedures. Further, there has been a fragmented geopolitical response with differing political systems exhibiting varying approaches to decision making and health outcomes, which has lead to confusion of the public. As a "misinfodemic," COVID-19 discussions have also attracted actors seeking to share misinformation enabled and exacerbated by social media networks, which include willful distortions as well as conspiracy theories. Combined, this (mis)infodemic can change risk perceptions of travel, resulting in travel patterns based on technological, regulatory, and perceived behavioral homophily.

Introduction

The COVID pandemic has been classified as an "infodemic" with emerging scientific findings, political responses, media coverage, and individual impressions all shared on social media (Bunker 2020). COVID-19 has created conspiracy theories around the origins of the virus (lab-created bioweapon), prominent individuals (Bill Gates), technology (5G), foreign countries (China destabilizing the west), and local governments (Shahsavari et al. 2020). Many of these theories are not new and have been extensions or elaborations of existing conspiracy theories. For example, scepticism about new technologies such as 5G has been linked to a conspiracy theory that the COVID-19 pandemic was caused by the presence of 5G towers (Jolley and Paterson, 2020). The pandemic has also been framed as a hoax or "plandemic" in which politicians, social activists, and medical practitioners have conspired to mislead the population about the effect of COVID-19. A distinct stream of conspiracy theories has arisen around cures and treatments for COVID-19. While some health treatment approaches are being formally investigated by medical practitioners (hydroxychloroquine), conspiracy theories have exaggerated the efficacy of these approaches (Bertin, Nera, and Delouvée 2020).

Entities sharing misinformation seek to reinforce, not challenge, the beliefs of people who follow these theories by actively participating in their online communities. Increased levels of social media participation with actors who share misinformation are associated with increased health risk perceptions (Puri et al. 2020). These actors include campaigners who are activists who promote misleading narratives on social media. They may be supported by political organizations (including national governments) who see misinformation as a means of reducing trust in authority and hence the legitimacy of a given government. Entrepreneurs use misinformation narratives to sell products and services. Both of these actors attempt to recruit via evangelizing with online communities, composed of individuals with informal (conspiracy) and formal (political and religious ideologies and familial relationships) belief structures that can influence risk perceptions of COVID-19.

Restarting tourism and experiences based around mass gatherings such as events and festivals will require the minimization of COVID-19 infections to reduce health risks. Realistically, this can only be accomplished via stringent monitoring of the local population, adherence to behavioral guidelines, and development of a vaccine. Studies have, however, reported noncompliance with preventive behaviors such as social distancing and mask-wearing (Imhoff and Lamberty 2020). Beyond noncompliance, activists have mobilized virtually and physically against institutions, lockdown measures, and health compliance measures.

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These protests have received extensive media coverage and have attracted support from several antigovernment groups as well as "QAnon" and "Boogaloo" conspiracy theorists (Brennan 2020).

(Mis)Infodemic Impact on Travel

Initial survey findings suggest that a significant percentage of the population of the United States, France, and the United Kingdom exhibit vaccine hesitancy and will not take a COVID vaccine even if widely available (DeRoo, Pudalov, and Fu 2020). Combined with legitimate uncertainties regarding technology, regulation and noncompliance (including vaccine hesitancy), the (mis)infodemic creates issues for travelers and destinations. For the former, countries that have not eliminated the virus may be a health risk and increased costs as their home country may apply quarantining and other health checks on return. For the latter, there may be a renewed risk of infection from countries with nonmandatory vaccine rules along with social discomfort from natives who may perceive tourists as infection vectors. Since health risk perceptions and vaccine takeup can vary by background, monitoring schemes may become discriminatory if not properly designed, and an understanding of risk perceptions will be crucial.

Technological Country Travel Homophily

The current "vaccine race" with multiple types under development exacerbates geopolitical issues in terms not only of different safety standards but also in using the vaccine as a possible political weapon for alliances or accusations of espionage and sabotage (LaFraniere et al. 2020). This differs from the scenario for, say, yellow fever for which there is a single vaccine. Russia has recently faced criticism for allegedly skipping testing phases for the locally produced vaccine (*Telegraph* 2020), while China has already administered a vaccine to army personnel (Westcott 2020). There may be the emergence of travel corridors between locations that have adopted similar types of vaccines. Tourists' risk perception may be affected by a destination's adoption (or lack) of a certain vaccine type. Further, public health organizations in host destinations may not trust the efficacy of a vaccine that cannot be easily verified by local officials. These factors suggest that there may be emergent preferential travel patterns between countries based on the adoption of vaccine technology.

Regulatory Country Travel Homophily

In addition to the type of vaccine, the veracity of COVID-19 vaccine certificates will need to be established and monitored. This issue will be further complicated where there are border crossings, spaces of transit (such as cruise ships, aeroplanes, or airports) or if tourists enter international waters where national laws do not necessarily apply. A related issue is tourist tracking via contact tracing apps. While countries like South Korea have been highly successful with their contact tracing application, in Europe most efforts have had only partial success, mostly due to low download rates (Halpin and Busvine 2020). Since countries have taken differing approaches to respond to the pandemic and host countries may set up preferential travel corridors for visitors from similar health regimes. For example, Sweden's recent exclusion from travel to Denmark shows that certain destinations are likely to be excluded from travel corridors.

In this case, concepts like cultural distance in travel choice and risk perception might change or be added to a "vaccine regime" distance, where tourists incorporate health regulatory risks that are accessed via an examination of vaccine laws and regulation when choosing a destination, possibly influencing future tourism development at destinations (Lee and Chen 2020). This might be particularly delicate if inbound travel requires the download of a tracking app. The risk perception of tourists to expose their data to another government might be particularly high, especially if this is related to smartphone tracking and other types of smart technologies.

Behavioral Country Travel Homophily

Conspiracy theorists have stated that the pandemic was engineered with the purpose to create totalitarian surveillance states, and the cultural traits of Western countries might make the application of mass vaccination and monitoring difficult. While during the pandemic, countries have promoted themselves as a relatively COVID-free zone (Beirman 2020) with rigorous testing (e.g., New Zealand, Faroe Islands), this might lead to others branding themselves as COVID-restrictions free zones, where sceptics are not requested for tests, quarantines or vaccine passports. This is particularly dangerous for developing countries which might be heavily hit by the recession and might want to attract wealthy vaccine-hesitant tourists, leading to a spiking infection rate within the destination.

The travel risk perception here is thus likely to increase. Host and guest relations might be plagued by suspicion as the "other" might have different levels of vaccine compliance. Government initiatives to attract COVID vaccine sceptics might face a backlash from the local people, as their health risks in daily life increases. Last, countries adhering to non–vaccine-compliant travel corridors will inevitably be perceived as high-risk destinations by the general public. These factors suggest the emergence of travel patterns based on perceived host/visitor perceptions of restrictions.

Future Research Recommendations

Researchers have been encouraged to go beyond the obvious to generate useful theoretical insights from the Coronavirus

pandemic (Zenker and Kock 2020). This opens a gateway for future tourism research that incorporates the discussed concepts (conspiracy theories, vaccine hesitancy) as part of theoretical frameworks to examine travel behavior as described in this letter. Although lessons can be derived from previous experience with infectious diseases, the (mis)infodemic may change future host and visitor behaviors. While research has examined the relationship between travel and infections, little work to date has examined the impact of host/tourist misbehavior and future travel behavior (Farzanegan et al. 2020). Overall, if the (mis)infodemic continues to encourage negative behaviors of travelers and host populations, the tourism industry may take a long time to recover to its previous scale. As a result, researchers may be at risk of examining a phenomenon (large scale tourism) that may no longer exist in its previous form. Research, therefore, needs to consider the impact of the (mis) infodemic on travel behavior and outcomes. Detailed recommendations are offered as follows.

The first recommendation is the development of future quantitative research into the impact of the COVID "infodemic" on Traveler vaccine hesitancy. Initial findings from the pandemic have identified that travelers may exhibit concerns about vaccines due to the influence of their nontravel knowledge-gathering habits and decision-making processes (Adongo et al. 2020) and that their travel behavior might change postpandemic (Li, Nguyen, and Coca-Stefaniak 2020). Incessant media and social media coverage of evolving health and vaccine information may increase the salience of these issues and therefore their importance in decision making. Further, the perceived inconsistency of stakeholder (medical, economic, and political) perspectives across countries may also induce uncertainty in potential visitors of this salient issue, reducing visitor confidence in health provisions of foreign destinations generally and especially among groups who exhibit vaccine hesitancy. The role of non–health-related mindsets could also be further explored by extending previous work that has examined the relationship between xenophobia and travel disease avoidance (Kock, Josiassen, and Assaf 2019). While the findings of that study suggested that people who hold xenophobic beliefs may prefer travel vaccination, opposition to COVID-19 measures has attracted support from political entities that are comfortable with xenophobia (Bolsover 2020). It is not known if these beliefs may influence willingness for COVID-19 travel vaccination or to host foreign visitors from countries with different technological and regulatory regimes. It may also be necessary to identify the travel behaviors of sceptical tourists, as activists have been willing to use deception to avoid COVID-19 restrictions. On the other hand, it will be vital to understand if other tourists would avoid areas where vaccines are not mandatory to minimize health risks. Future quantitative research can compare insights from the travel vaccination scale (Adongo et al. 2020) and disease avoidance research (Kock, Josiassen, and Assaf 2019) across countries to identify the impact on host–guest relations if

hesitancy levels between visitors and residents significantly differ.

The second recommendation is to empirically verify the extent to which Covid misinformation influences tourists' future choice of destinations. Fedeli (2020) raised the issue of fake news in a tourism context, highlighting several examples where mendacious information has affected the tourism industry. Accordingly, visitors to Bali were detracted by rumours spread about a volcanic eruption and misinformation regarding the murder of a Polish tourist in Egypt reduced the number of his countrymen from visiting the country. While causal relationships between misinformation and tourist behavior may be hypothesized from these cases, empirical evidence for this remains scarce at best. As the availability of information is fundamental for tourists in terms of knowledge construction about places, products and activities, fake news can influence the dynamics of information gathering and processing. The recent emergence of "deep fakes," that can use machine learning techniques to create realistic depictions of events that are not real, can also create misinformation that affects destinations (Kwok and Koh 2020). Technological developments also have seen the increased use of automated accounts on social media that can rapidly disseminate content in online communities, providing high visibility of misinformation to potential visitors (Williams, Ferdinand, and Bustard 2020). As hyper-reality sees fake news becoming more real than reality itself, fake news could encourage negative beliefs about the notion of tourism places and products for potential travelers (Berkowitz and Schwartz 2016). In addition to misinformation, which can be independently fact-checked, Covid conspiracy theories cannot be easily falsified (Popper 2006). Efforts by social media and traditional media organizations to limit sharing of conspiracy theories ironically validate their central premise and may strengthen beliefs (Borel 2017). Related research could also examine the efficacy of fact-checking efforts.

The third recommendation is the adoption of a symbolic interactionist framework to examine how interaction via social media about COVID-19 information and misinformation can influence place attachment. This issue relates to the processes of knowledge creation and dissemination in tourism, which are based on the shared construction of reality and narratives among tourists (Noy 2005). Blumer's (1969) symbolic interaction theory posited that individuals' behavior is driven by symbolic meanings acquired through interaction with significant others, which could include personalities on mass media. (Hosany, Buzova, and Sanz-Blas 2020). In the online domain, social media platform users may be motivated to perform a particular action (e.g., the impetus to visit/avoid) toward the mediated object (e.g., a featured place) based on the meaning acquired by interaction or observation of prominent accounts. The impact of media such as television and movies have been observed to shape Tourist destination perceptions (Wen et al. 2018). This research can be extended to examine how interaction with antivaccination

actors and content via social media may shape place meaning and subsequent visitor actions.

The fourth recommendation is the examination of the role of the tourism industry in responding to the (mis)infodemic. Research should aid destination managers in the implementation of monitoring schemes for infections, investigating tourists' perceptions of airport testing and quarantine measures. In terms of vaccine-hesitancy, scholars should explore the role of tourism organizations in public health going beyond compliance with regulations and relating to encouraging and supporting vaccinations and positive behavioral efforts. In other words, research should investigate the role that tourism actors can play in promoting public health in the immediate context of the pandemic and beyond. Another stream of research is needed to investigate the measures that tourism organizations can take to protect themselves from the effects of misinformation. In all of these areas, academics can go beyond examination of phenomena and theorising to support public education efforts and facilitate knowledge exchange among stakeholders (Cai et al. 2020).

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