# Travel and the climate crisis: exploring COVID-19 impacts and the power of stories to encourage change

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## Abstract

**Purpose** – The natural environment is facing unprecedented times owing to rising temperatures from carbon emissions, which travel-related industries contribute significantly towards. The recent global COVID-19 outbreak should be a wake-up call for the industry, as vulnerabilities have been laid bare. The current challenges should be used as a motivation to change the meaning of travel to support the global warming crisis. This paper aims emphasis that, by means of new stories, new values, beliefs and ultimately travel behaviours can be rewritten.

**Design/methodology/approach/** – This study embraces a pragmatic approach to research. To ensure plausibility, credibility and relevance, the research carried out multi-disciplinary analysis of secondary data, information, knowledge and draws on current developing trends.

**Findings** – The travel community needs to take responsibility and start reducing its carbon footprint and as carbon neutrality is increasingly a global priority. Accordingly, this research considers potential future travel-related behaviours that could support more carbon-neutral travel. Significantly, it notes how the COVID-19 outbreak has offered insights into potential positive changes. To benefit from these changes, new stories for industry providers are necessary to encourage more carbon-neutral travel practices.

**Originality/value** – This paper offers timely and original discussions on the future of travel as a result of COVID-19 impacts. It draws on the power of storytelling as a means of achieving behavioural change in the travel community to support the challenge of climate change.

**Keywords** Scenarios, Tourism, Climate change, Stories, Future studies, COVID-19

**Paper type** Research paper

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## Introduction

*Habits are a blessing, and a curse* (Noë, 2010).

Momentous events can encourage society to change. COVID-19 arguably should be one of those moments. As the pandemic continues to impact our lives, society is undergoing new experiences, and consequently new stories around how we should live life are being generated. Stories are a powerful tool, and with new stories society can encourage new behaviours. This paper explores how society can use the current global pandemic as a tool to generate new stories around travel and consequently encourage new travel attitudes and behaviours. The reason for this is because travel-related industries have and continue to play a significant role in contributing to global greenhouse gas emissions and the warming of our planet. This paper therefore outlines potential future travel behaviours which would ensure the industry is taking responsibility in supporting the natural environment. In less you have been living in an isolated bubble, you will be aware that current scientific research is showcasing evidence that our natural environment is facing unrepairable damage. Scientific research continues to highlight evidence stressing the urgency to reduce our carbon emissions and to limit the warming of our atmosphere; significantly, by reducing the burning of fossil fuels.

> Everything we do, from the food we eat, products we buy to the way we travel, releases greenhouse gases into the atmosphere, and so has an impact on the planet's climate. But some activities have a far greater impact than others (Timperley, 2020)

According to Figueres and Rivett-Carnac (2020), two key dates lay ahead, 2030 and 2050. By 2050 (ideally 2040), globally we must have stopped emitting carbon into the atmosphere to that which our planet earth is capable of absorbing through its ecosystem (a balance known as net-zero emissions or carbon neutrality). To achieve this, society needs to see a significant decline (of carbon emissions) by the early 2020s and reduce them by at least 50% by the year 2030. Figueres and Rivett-Carnac (2020) note that achieving this by 2030 is the absolute minimum requirement if humanity is to safeguard itself from the worst impacts of global warming. Our current decade (2020–2030) is considered the critical decade. What we do in this decade will determine the quality of life on planet earth for hundreds of years to come, if not longer. Significantly, a key contributor to carbon emissions is the travel industry, an industry, which before the COVID-19 outbreak (which we will come to shortly) was thriving. Worldwide tourism accounted for 8% of global greenhouse gas emissions from 2009 to 2013, with the travel sector being a bigger polluter than the construction industry (Dunne, 2018).

International tourism continued to outpace the global economy (UNWTO, 2019). Driven by a relatively strong global economy, a growing middle class in emerging economies, technological advances, new business models, affordable travel costs and visa facilitation, international tourist arrivals grew 5% in 2018 to reach 1.4 billion. This figure was reached two years ahead of the United Nations World Travel Organisation forecast (UNWTO, 2019). It is reported that around one in ten people globally are directly or indirectly employed by tourism (Newport, 2018). The World Travel and Tourism Council (WTTC) in its annual research analysis, which quantifies the global economic and employment impact of travel and tourism in 185 countries and 25 regions, revealed that the sector accounted for 10.4% of global gross domestic product (GDP) and 319 million jobs, roughly 10% of total employment in 2018 (World Travel and Tourism Council, 2019). This growth reflected economic activity in industries such as hotels, travel agents, airlines (and other passenger transportation services, excluding commuter services). It also included activities undertaken by restaurants and leisure industries directly supported by tourists. Then came the novel coronavirus outbreak (also known as COVID-19 and referred to by this name throughout this report). It is still unclear as to when the outbreak started and the origins of it. The World Health Organisation (2020) on their webpage entitled "rolling updates on coronavirus disease (COVID-19)," the first post is 31 December 2019 with the headline "Pneumonia of unknown cause reported to WHO China Office." The WHO also include this statement:

> At the close of 2019, the WHO China Country Office was informed of a pneumonia of unknown cause, detected in the city of Wuhan in Hubei province, China. According to the authorities, some patients were operating dealers or vendors in the Huanan seafood market.

> Staying in close contact with national authorities, WHO began monitoring the situation and requested further information on the laboratory tests performed and the different diagnoses considered.

At the start of 2020, the COVID-19 outbreak began to spread around the globe, with the following headlines capturing the immediate resulting impacts on the travel industry:

- "Coronavirus Is Devastating Chinese Tourism" (McLaughlin, 2020).

- "Coronavirus: Italy's tourism industry reports 'worst crisis in recent history' after outbreak" (The Local, 2020).

- "Coronavirus: UK travel and tourism industry is bracing for the impact of COVID-19, which could cost 50m jobs" (Kirby, 2020).

- "Travel industry could lose $24 billion as coronavirus cripples tourism from outside US" (Hirsch, 2020).

- "I was crying. How coronavirus grounded the aviation industry" (Stokel-Walker, 2020).

- "Coronavirus risks downward spiral for events industry" (Hancock, 2020)

- "UK hospitality industry faces 'existential crisis' over coronavirus" (Pickard *et al.*, 2020).

- "Coronavirus hits global tourism hard" (Schlagwein, 2020).

A report by the Word Travel and Tourism Council (2020a) suggested that the COVID-19 outbreak could put up to 50 million travel and tourism jobs at risk. As the spread of COVID-19 sent countries into lockdown, new stories continued to shine a light on travel- and tourism-related industries. The impact on the travel industry and its related sectors is yet to be truly felt. It will likely be many years till a true picture of COVID-19 impacts can be understood. But for many people and communities across the globe, working (directly or indirectly) and reliant of tourism- and travel-related industries, the impact was immediate. More significantly, lives have been lost. Amongst all this, society is confronted with a serious challenge, global warming, further fuelled by human-related carbon emissions. Travel- and tourism-related industries which were thriving pre-COVID-19 will likely surge once again after the global community has overcome the COVID-19 pandemic. However, our industries are a significant contributor to global emissions, and the following decade is said to be the most crucial period, a time when society radically needs to reduce its carbon footprint. If we do not, tourism- and travel-related industries in the coming decades may no longer provide the economic, social and environmental benefits and support which it currently provides the global community. Its own success could eventually become its own demise. The COVID-19 pandemic has once again emphasised our vulnerabilities. For travel- and tourism-related industries, it has further highlighted our dependency on consumers and visitors as fundamental to the existence and operation of business and organisations.

In line with the challenges faced by climate change and the need to reduce (even eliminate) carbon emissions, and taking stock that travel is a significant contributor (to carbon emissions), the aim of this paper is to propose that now is an opportune moment to reassess our values and beliefs towards leisure time and ultimately our behaviours towards travel. To achieve behavioural change, we need to create new stories, new narratives of what travel and tourism mean to us. According to Keyser (2013), the first step in telling a good story is generally to attract attention, and the most effective route in achieving this is to make an emotional appeal. Owing to the COVID-19 outbreak and the extreme global responses (shutting down communities and social isolation), most people have experienced life differently, living altered realities. Consequently, people's experiences have led to new stories, at least in the short term, our lives and behaviours have changed. People working in travel, tourism and leisure industries witnessed how vulnerable and reliant they are on tourists and consumers. As individuals isolate themselves, questions on the future will be raised, people will reflect on their own future involvement in travel (be it for work or leisure). A significant question to be raised at this point is, once society has overcome the COVID-19 pandemic, should travel continue to be, business as usual? Should we continue to operate as we did pre-lockdown, at a time when we are frequently being warned that "business as usual" is no longer appropriate in the face of raising global temperatures? As we move further into the 21st century, we are being warned that more natural disasters and novel biological viruses like COVID-19 are likely (Settele *et al.*, 2020). Business as usual is arguably no longer the answer. Is now a time to make changes to our travel habits? If so, travel- and tourism-related industries need to drive this change. As creatures of habit, society will likely find changes to our travel behaviour difficult. However, through new narratives, new stories, society can change the meaning of travel and tourism (and ultimately our behaviours). It does not need to lead to negative economic impacts, instead, changes could even spread the benefits associated to travel to more communities

whilst reducing its carbon footprint. This paper offers original discussions exploring the current challenges faced by society and the environment and consequently the travel industry. It does so by initially drawing on the work of Figueres and Rivett-Carnac (2020). The authors present potential future scenarios as a result of action or inaction towards the climate crisis. Importantly, the paper's objective is to present future travel ideas that should be encouraged and embraced by the industry and travellers alike – ideas which would not only aim to lessen our carbon emissions but also arguably create a more fruitful experience from supply and demand perspectives. Now, at a time where the COVID-19 pandemic has brought the industry to a halt, could be an opportune moment to start encouraging and discouraging various forms of travel. To achieve this, companies, organisations and governments with power and authority will need to drive this change, by creating, sharing and promoting new stories, new narratives for the meaning of travel and tourism. The aim is to generate more environmentally favourable consumer behaviours and a sustained existence for the future of the travel industry and significantly to introduce measures that preserve our natural environment.

## Methodology

Future research is becoming an increasingly popular area for scholars and is likely to see more movement as society is confronted with significant events including the COVID-19 pandemic, future biological outbreaks, natural disasters, climate change-related issues and developments in new technologies and societal changes. To explore the future, researchers often base their discussions on past, current and developing trends in human affairs (considering natural and human developments). This is also recognised by Leigh *et al.* (2013, p. 3) who note that "authors strive to predict through the use of drivers and understanding current trends." Researchers offering future ideas should recognise the complex structures of society, subsequently, aiming to draw on data and information from both the social and hard sciences as evidence. This is supported by Lee (2012), who suggests that research focusing on the future is often recognised as multi-disciplinary, because methodological approaches applied often draw on data from a range of sciences. Therefore, according to Lee (2012), authors should aim to integrate knowledge from a variety of disciplines. In this research, the mixed methods approach provides the researcher with an opportunity to examine quantitative data, thus, drawing on (more objective) numerical information and statistics and as means of justifying the future. Whilst also allowing justifications to be based on qualitative perspectives, here taking human experience and subjectivity-based knowledge as valued information.

There is also a significant focus in providing a theoretical background to one's formal research design(s), and the mixed approach has become increasingly more valuable as a method. In line with this, the pragmatic philosophical approach embraces mixed methods research, recognising the strengths and weaknesses of both qualitative and quantitative methods (Maxcy, 2003). Importantly, the pragmatic approach recognises benefits from interpretivist or constructive research approaches (often aligned with qualitative research) and the more positivistic approaches (often associated with quantitative research). Drawing evidence from different forms of research and paradigms allows for a more holistic understanding of complex systems, such as natural phenomena and societal structures. This study therefore embraces the pragmatic research approach. Fahey and Randall (1998, p. 9) stress the need that:

> [...] plausible evidence should indicate that the projected narrative could take place (it is possible), demonstrate how it could take place (it is credible) and illustrate its implications for the organisations (it is relevant).

To ensure plausibility, credibility and relevance, this study carried out multi-disciplinary analysis of secondary data, information and knowledge and draws on current developing trends to justify its claims.

Bartunek *et al.* (2006) suggest that authors should aim to produce research that encourages debate. Stressing that, research should engage readers beyond the original targeted audience, outside of the academic sphere. The discussions in this paper are relevant to the wider global public as tourism-related industries impact people and communities around the world. When presenting future research, the challenge for scholars is offering plausible and valid depictions of the future. A method often used to depict future scenarios is storytelling and narrative writing. Narrative writing has progressed significantly since Chase (2005, p. 651) suggested that as a form of inquiry it was still "a field in the making." The narrative epistemological approach provides an alternative method to more scientific perspectives, taking human experience and subjectivity as value based. Polkinghorne (1988) notes, the narrative mode should not be seen as a new epistemology, rather one which has roots to the earliest forms of pervasive human experience. Arguably, one that precedes the more logical and pragmatic hard-science epistemologies applied to human understanding and natural-environment sense-making. Rasmussen (2005, p. 230) notes, "the narrative approach allows the scenario designer to provide holistic views of the future." Narrative writing is an effective way of presenting future scenarios, as they provide stories that are engaging and informative (Lindgren and Bandhold, 2009). This is significant because this research initially draws on storytelling and scenario writing (by other researchers), before exploring the potential future of travel and tourism. The following will now consider the importance of storytelling in more detail.

## Discussion: tourisms' current predicament

### Power of storytelling

*Storytelling is the most powerful way to put ideas into the world today* – Robert Mckee (Story, 2015).

The following discussion section initially highlights the current issues facing our natural environment and considers how travel-related activities (pre-COVID-19) were negatively impacting the environment. Subsequently, it highlights examples of how the environment has benefited from the significant decline in travel as a result of the recent pandemic. Rasmussen (2005, p. 229) suggests the valuable application of scenarios are down to their "[…] flexible means to integrate disparate ideas, thoughts and feelings into holistic images, providing the context and meaning of possible futures." Scenarios have long been associated with a range of industries and disciplines. They have been used by policymakers, for business planning by local, national management and governments, and used for global environmental and development perspectives, and by academics (Fortes *et al.*, 2015). The application of scenario's in exploring the future is common practice. The methods vary, but in this case the focus is on narrative scenarios, where written stories are the method of exposing future realities.

Guber (2011) argues that, as humans we are not moved to action by "data dumps," dense PowerPoint slides or spreadsheets packed with figures. Humans are moved by emotion, and the most powerful method to emotionally connect other people to an agenda begins with "Once upon a time […]," by telling emotive stories. The importance of narrative writing as a method is recognised by Lindgren and Bandhold (2009), who identify the significance in telling a story to the reader. Humans create stories to help them understand life, to create meaning to their lives, to establish order and to ensure we can establish spaces to live collectively and to help us consider where we are now and where we want to be in the future. According to Harari (2015, p. 170), "meaning is created when many people weave together a common network of stories." We partake in socially accepted behaviours because others around us do so as well, our families, friends, neighbours and people from other cultures. "People constantly reinforce each other's beliefs in a self-perpetuating loop. Each round of mutual confirmation tightens the web of meaning further" (Harari, 2015, pp. 170–171). Harari (2015, p. 171) further states that "[…] over decades and centuries the web of meaning unravels and a new web is spun in its place."

"Why storytelling is the ultimate weapon" is explained by Gottschall (2012). The author suggests that science backs the long-held belief that stories are the most powerful means of communicating a message. According to Gottschall (2012) during the past few decades, psychology has studied the effects of storytelling on the human mind, and results have repeatedly shown that:

> [...] our attitudes, fears, hopes, and values are strongly influenced by story. In fact, fiction seems to be more effective at changing beliefs than writing that is specifically designed to persuade through argument and evidence.

Further suggesting, that studies have revealed, when people read facts, they keep their guard up, seeking inconsistencies and missteps (Piontek, 2015). Yet, stories can disarm people as they drop their intellectual guard, when people hear a story, they look for ways to map it to their own experience (Piontek, 2015). Psychologists Brock and Green (2005) assert that entering fictional worlds can significantly alter the way information is processed, and the more absorbed people are in a story, the more the story can change them. The authors refer to a process called, "transportation into narrative world." This is referring to the mental involvement in narrative that can facilitate the integration of knowledge from the narrative world into real-world judgements. Medina (2014) also stresses the power of emotion and specifically emotionally charged events. Medina notes that emotionally charged events persist much longer in our memories and can be recalled by individuals and collectives with greater accuracy than neutral memories. Therefore, our current COVID-19 predicament, an emotionally charged event, could be an ideal time to inspire us to change. This paper proposes that society can begin to establish new stories to change our behaviour towards travel. However, before considering what new stories can be created in the analysis section, it is necessary to understand why we need to create new stories. The motive to change should be driven by the impacts our current tourism practices are having, destroying the very thing that sustains our existence, the natural environment.

## We are becoming vulnerable in our natural environment

> The Planet will survive, in changed form no doubt, but it will survive. The questions is whether we will be here to witness it. That's why climate change is the mother of all issues (Figueres and Rivett-Carnac, 2020, p. 10).

So, where are we heading, what lays ahead for our natural environment? Here the discussions will focus on two scenarios presented by Figueres and Rivett-Carnac (2020). From 2010 to 2016, Figueres was tasked with guiding global governments to adopt and sign the Paris Agreements in 2015. Rivett-Carnacby joined the UN to become the Chief Political Strategist and work alongside Figueres. In their book, the authors present two scenarios for planet earth in the year 2050. If current trends and humanities behaviours continue, society is heading for the following scenario, called "The world we are creating." This first scenario is a bleak and somewhat disturbing future. However, in the book, the authors provide a list of actions they recommend society take, and if implemented and embraced a more positive future is attainable. Scenario 2, named, "The world we must create," is the future they recommend we strive towards. Figueres and Rivett-Carnac (2020) provide future scenarios written as stories (as discussed above). They use the power of narrative writing to generate emotive scenario stories to engage readers. If society continues consuming the planet as we are today and does not limit and reach net-zero carbon emissions, in the view of the authors, the following scenario is the world we will likely be living in (the following bullet points provide some key narratives from the authors' first scenario).

*Scenario 1: the world we are creating*

- 2050, society failed to reduce emissions and is now heading for a world that will be more than 3 ˚C warmer by 2100. For some cities, temperatures have become unbearably high, upwards of 60 ˚C (around 45 days of the year) – at this temperature the human body cannot be outside for more than 6 hours because it loses the ability to cool itself down.

- The increasing heat of the Earth will be suffocating, and vast swaths of the planet will be increasingly inhospitable to humans. The first thing that hits you is the air which is hot and heavy, clogged with particulate pollution. Your eyes water, your cough never seems to leave.

- You can no longer simply walk out your door and breath fresh air as there might not be any, instead, you often need to wear a mask to protect yourself from air pollution. Few people work outdoors and even indoors the air can taste acidic.

- The damage to our natural environment is evident on the oceans, as coral reefs are all but gone, as are plants, tress and soil, likewise, there are hardly any forests left.

- Owing to melting ice caps, more moisture in the air and higher sea surface temperatures, there are more tropical storms and extreme flooding causing massive infrastructure damage to vulnerable coastal cities, with some locations having to evacuate. With multiple disasters across different locations, supply of food and water as relief for communities can take weeks, even months to arrive, as people live in wet, flooded, damp homes.

- Entire regions suffer from epidemics of stunting malnutrition. Diseases such as malaria, dengue, cholera, respiratory illnesses and malnutrition are rampant.

- Rising oceans have caused devastating impact on coastal communities, and droughts and heatwaves inland have created a special hell. Vast regions have succumbed to severe aridification, even desertification; wildlife is a distant memory.

- Mass migrations are prevalent across the globe as people seek less hot rural areas, leading to refugee problems, civil unrest and bloodshed over diminished water availability. Food production is massively inconsistent across the globe, with more people starving than ever before. Owing to the issues of migration at national borders, suicide, genocide, slave trading and refugee virus outbreaks have become common.

- Global trade has slowed as countries stop exporting and seek to hold onto their own limited resources. Disasters and wars further choke trade routes. Stock markets are crashing and currencies fluctuating widely.

- Nations are committed to keeping their wealth and resources, so armies have become highly militarised border patrols. Lockdown being the focus, but not always successful, either migrants get locked out or others try to be good Samaritans.

- Humans will be cast to the winds, once again gathering in small tribes, hunkered down living on whatever patch of land will sustain them. For those living in more stable nations, physical safety might be more common, psychological safety, less so. Higher climates lead to mosquitoes and ticks spreading diseases across the planet. The antibiotic health crisis is worsening with greater bacterial resistance.

- Income inequality has never been so stark and dangerous, and for those with money, they have access to resources.

- The demise of the human species is frequently discussed, it is more a matter of when the end will come not if. A sense of bottomless loss, unbearable guilt and fierce resentment all point towards previous generations who did not do what was necessary

to ward off this unstoppable calamity (Figueres and Rivett-Carnac, 2020, pp. 21–31), even though they were warned over and over again that this was a potential future scenario if they did not change their behaviours.

This scenario (it is recommended that readers locate and read the original complete scenario) paints a vivid and ugly future for our planet, one that is said to be only decades away. In this scenario, travel and tourism will only exist for a privileged few. The meaning of tourism, the power of tourism and the many benefits it brings to communities around the world will be no more. Partly because, most of the people around the globe will be suffering, either mentally, physically or more likely, both. Significantly, the scenario above is a result of carbon emissions being released into the atmosphere, warming planet earth and ultimately, destroying our natural environment. Travel- and tourism-related industries must take stock and realise they are accountable for significant carbon emissions, and thus, playing an active role in Scenario 1 becoming a reality. However, the authors do provide a more positive future scenario. In the second scenario, the authors present a narrative where the natural environment and humans continue to thrive together. Not without challenges, but still, a greener, more energy efficient world. Again, the reader is encouraged to read the full scenario. For now, the focus draws the reader's attention to how the authors portray travel in Scenario 2 (as this is the focus of this research). In Scenario 2, "The world we must create," the authors provide the following insight into how tourism could exist in the year 2020.

*Scenario 2: the world we must create*

International air travel has been transformed. Biofuels have replaced jet fuel. Communications technology has advanced so much that we can participate virtually in meetings anywhere in the world without travelling. Air travel still exists, but is used lest sparingly and is extremely costly. Because work is now increasingly decentralised and can often be done from anywhere, people save and plan for "slow-cations" – international trips that last weeks or months instead of days. If you live in the United States and want to visit Europe, you might plan to stay there for several months or more, working your way across the continent using local, zero-emissions transportation (Figueres and Rivett-Carnac, 2020, p. 41).

To avoid Scenario 1, many industries must adapt and take responsibility in reducing their carbon emissions. Nevertheless, for this research the focus is on travel and tourism and how it can take responsibility in negating the impacts of climate change. Tourism can adapt and continue to thrive, as showcased in Scenario 2, and this paper will point to some measures in which this can be achieved. By generating new stories society can encourage and change human behaviour. Behaviours that could allow nature and the industry to thrive, but new attitudes to travel, such as the slower approaches suggested in Scenario 2 must be embraced. Before identifying these, it is necessary to consider how tourism-related activities today (and in past decades) have negatively impacted the environment.

### Carbon emissions and tourism

Tourism and its relationship with the natural and manmade environment are a complex topic, but important. Tourism in many regions is dependent on the environment, as tourists visit for environmental motives (i.e. skiing, diving, nature-based activities, mountaineering, beach and water sports, to name a few). Travel- and tourism-related industries are a key contributor to carbon emissions. Tourism uses natural resources (be it for the movement of people such as transportation, for food and beverage requirements, land use and water consumption), as many destinations and companies require natural resources (food, water, fossil fuels) to provide facilities and services for tourists. As tourism numbers have steadily increased (pre-COVID-19), destinations increased facilities and services to meet the growing demands and consequently expanded infrastructure, such as airports, roads, resorts, hotels, entertainment, catering, shopping and much more. Tourism provides many (social, economic and environmental) benefits, but it also leads to negative impacts, and the natural environment is one aspect that suffers. As noted by Lenzen *et al.* (2018), the

UNWTO recognized the global significance of tourism-related emissions and proposed the following two mitigation strategies:

- to encourage travellers to choose short-haul destinations with an increased use of public transportation and less aviation; and

- to provide market-based incentives for tourism operators to improve their energy and carbon efficiency.

Lenzen et al. (2018) findings provide proof that so far these mitigation strategies by the UNWTO yielded limited success. They found that neither responsible travel behaviours nor technological improvements had been able to rein in the increase of tourism's carbon footprint. This was before the COVID-19 outbreak. Simply, our industry is not doing enough to support the challenges our environment faces as a result of global warming. Especially when our industry is partly responsible owing to the carbon output directly emitted from travel-related activities and industries.

Lenzen et al. (2018) explored the relationship between tourism and global emissions. The research aimed to quantify the carbon footprint of tourism operations and included the transport industry, events and hotel sectors and food and shopping services in 189 counties, whilst also including relevant upstream supply chains. With expanding global economic progress, particularly in high-income countries and regions, consumers are demanding more travel experiences rather than consuming other products and services. Consumer desires to travel internationally for experiences are heavily reliant on aviation as a means of transportation. This significant growth in travel has turned tourism into a carbon-intensive consumption category (Lenzen et al., 2018). Furthermore, from their research, the authors found that, between 2009 and 2013, tourism's global carbon footprint increased from 3.9 to 4.5 gigatonnes of equivalent carbon dioxide. This was four times more than previously estimated and in total accounted for about 8% of global carbon emissions, with transport, shopping and food being the significant contributors. The aviation industry was the main culprit, and the researchers stressed that the high-polluting industry would become increasingly problematic as the world continued to see economic growth and subsequently increased demand for luxury travel. As noted by Timperley (2020):

> [...] around 2.4% of global CO2 emissions come from aviation. Together with other gases and the water vapour trails produced by aircraft, the industry is responsible for around 5% of global warming.

This might not seem like a large number at first glance. However, only a very small percentage of the global population flies frequently. Even in wealthier countries like the USA and the UK around only half of people fly in any given year, and just 12%–15% are frequent fliers (Timperley, 2020).

As noted, most of this footprint was exerted by and in high-income countries, with USA, China and Germany at the top end. Lenzen et al. (2018) reported that around 15% of tourism-related emissions did not face reduction targets, as industries such as aviation and bunker shipping were excluded from the Paris climate agreement. On the previous note in relation to the USA (the world's biggest source of tourism emissions), current President (at the time of writing) Donald Trump, not only did he not support the Paris agreement he continued to express doubts over the very existence of climate change (Gabbatiss, 2018). Nevertheless, as noted above, the COVID-19 pandemic has brought the industry to a standstill. It has led to the complete shutting down not only of travel-related industries but also for many, the total shutdown of society as people across the globe have been forced into social isolation. Consequently, over the preceding months (at the time of writing, March to June 2020), the majority of the global tourism industry (and many other industries) ceased operations. One positive outcome from this was a reduction in carbon emission (at least for a brief period), and ultimately some environmental rejuvenation has been witnessed.

## Impacts of COVID-19

*We have all be sent to our rooms to reflect on what we have done to the environment*

The COVID-19 outbreak took humanity somewhat by surprise; in early 2020, countries went into lockdown. For the victims and their families, it has been a troubling and difficult time. For many global, regional and local industries, the impacts are also likely to be difficult to overcome (particularly in the short term). Not least, the tourism industry (and its related sectors, such as hospitality, events, transport, leisure and entertainment) has been significantly limited in their operations, some have stopped operating and subsequently many businesses will not survive. The long-term effects on people's livelihoods, their jobs and the continued operational existence are yet to be measured. In time, the true damage and overall cost of the COVID-19 pandemic on the tourism industry will be revealed. However, small and international events have been cancelled or postponed. Other areas, such as volunteer tourism and/or travel that includes close-to-close contact or homes stays, become almost redundant owing to lockdown measures and social distancing. The business travel industry has adapted, and virtual conferences and meetings have become common practice and may continue to be a virtual practice in the future.

For many, the potentiality of a COVID-19 pandemic and the effects on our lives would have felt like a fictional story, something seen in movies and novels. The pandemic is an emotionally charged event for most of the global population, and consequently, it has the power to change our values, beliefs and our behaviours. Stories of change as a direct result of the COVID-19 pandemic are already filtering into the public domain. A paper by Mance (2020) explores how the COVID-19 might change the way we live, suggesting that personal reflection is one such impact and on a personal level the "coronavirus may make us reconsider how many journeys - holidays, work trips, conferences – are actually essential." Even before the COVID-19 outbreak, discussions were beginning to focus on the impact of aviation and individuals taking up increasing flying time. For individuals that do fly, most of our personal carbon footprint is likely to be made up by aviation activities. As mile for mile, flying is the most damaging way to travel for the climate (Timperley, 2020). The challenge for many is that we have become accustomed to our lifestyles, and the idea of reducing our flying, changing our behaviour (s) is somewhat unnerving. Travel and flying have become part of our business and social lives. Humans are creatures of habit, accustomed to routine action and thought, all of which provide structure to our lives, but does the current situation provide a platform for change?

Whilst the industry and humanity struggle to cope with the impacts of COVID-19, in the face of growing climatic challenges, parts of our natural environment have briefly benefited from our isolation and limited movement, as highlighted by various scientific studies and eyewitness reports documenting the positive impacts as a result of reduced tourism-related activities presented in Table 1. According to Andersen, the COVID-19 pandemic is nature's way of sending us a message, as humanity continues its ongoing climate crisis. Andersen noted that humanity was "placing too many pressures on the natural world with damaging consequences, and warned that failing to take care of the planet meant not taking care of ourselves" (Carrington, 2020).

Harvey (2020) notes that climate effects are not wholly unexpected, as history shows that in the wake of global disasters, particularly those that have economic effects, there is often a tendency to see a temporary decline in carbon emissions, as was seen during the 2008 recession. Harvey (2020) stresses that the impact of an epidemic on the climate is more complex and can vary globally depending on how people live their lives, move around the city and carry out their shopping. For example, household carbon footprints can increase in these periods. Home isolation can lead to increased online shopping and more energy use (increased use of central heating in colder climates). However, considering COVID-19, many are stressing that we should not take our eyes off the wider challenges faced by

| **Table 1** Environmental benefits as COVID-19 halts economic activity | |
|---|---|
| *Impact* | *Description* |
| Improved air quality | Dramatic fall in China's pollution levels "partly related" to coronavirus. NASA satellite images show a dramatic decline in pollution levels over China, which the US space agency believes is "partly related" to an economic slowdown owing to the coronavirus (Davies, 2020). Satellite images show emission drops over European cities amidst coronavirus lockdown (Boyle, 2020). New data confirms the improvement in air quality over Europe – a byproduct of the coronavirus crisis (Amos, 2020) |
| Reduced carbon emissions | Slowing economic activity is driving down emissions (if only temporarily). A study by specialist outlet Carbon Brief found that in China, carbon dioxide emissions have fallen by around 25% (Politico, 2020). The International Energy Agency (2020) noted that global oil demand would decline as COVID-19 spreads globally, consequently limiting travel and broader economic activities |
| Stalled airline emissions | Airline lobby IATA predicts the global industry could lose up to US $113bn in 2020. This will inevitably lead to a dip in carbon emissions, but once again this will only last as long as the virus does (Saeed, 2020) |
| Clearer water | The crowds of tourists who are normally attracted to the Venice canals are gone and the number of motorboats vastly reduced. As a consequence, the normally polluted waters of the canals are clearer than at any time many locals can remember (Ball, 2020) |

global warming. Packham (TV naturalist) warned that the COVID-19 outbreak could set back efforts to tackle environmental issues by years. Fighting the pandemic could result in climate change dropping down government agendas (Stafford and Moore, 2020). Similarly, Politico (2020) warned that the "climate is no longer the crisis." As the virus becomes the main attraction on everyone's agenda, climate issues have been crowded out. A recent paper by Gardinera (2020) notes that even though the air has been cleaner because of global lockdowns, a more polluted future could be brewing pointing towards issues such as destruction to the Amazon rainforest and potential dirty recovery as countries seek to increase aviation practices and the shipping industry. A significant point is being raised here; society must not forget the climate challenge we are confronted with. Likewise, once society moves out of, or learns to live with the COVID-19 virus, what happens next? Should this be a time to change our behaviours to avoid the potential scenario presented above and avoid business as usual?

### Same old story: business as usual

The climate challenge and protecting our natural environment should be our shared global priority and some of the environmental benefits seen in the wake of the COVID-19 pandemic, whilst short term (and isolated), should inspire us to change. Climate activists believe the crisis should provide us with a window of opportunity to speed up the implementation of promised reforms by governments. This is something Li has advocated for (Wright, 2020).

> The concern, is that once the coronavirus threat passed, China will be solely focused on restarting its economy, which was already hurting in the wake of the US-China trade war. That could come at the expense of the environment according to Li.

However, Li believes the opposite will entail, where cheap credits to heavy industries will be handed out to provide a round of economic stimulus. Consequently, mass pollutants and increased carbon emissions in the second half of the year (2020) will follow. This bounce back effect can reverse any of the more recent positive environmental impacts, something

Li calls "revenge pollution." A precedent for this was set in the wake of the 2009 financial crisis when the Chinese government invested in a US$586bn stimulus package in large-scale infrastructure projects eventually leading to years of pollution, also known as the "airpocalypse" winter of 2012–2013 (Wright, 2020). However, recently China's leader, Xi Jinping, noted that the country aimed to be carbon neutral by 2060. It is seen as a very ambitious and surprising goal but welcomed by environmentalists and experts. Even if at present, president Xi offered almost no detail on how China would meet this goal (Myers, 2020).

What about the travel industry, how is it likely to react in the wake of recovery and loosening of lockdowns? The World Travel and Tourism Council (2020) states that "the COVID-19 pandemic presents a massive threat to the industry as a whole (from supply and demand perspectives)." Importantly the World Travel & Tourism Council (2020a) suggests, "travel & tourism has the strength to overcome the current crisis it is faced with." They suggest that the industry will "emerge stronger and more robust by taking all necessary measures to tackle COVID-19 and the understandable concern which surrounds it." After widespread consultations with travel and tourism organisations, the WTTC is calling for a series of measures to be implemented to enable the sector(s) to deliver a swift recovery. The Word Travel and Tourism Council (2020a) stresses that they will "offer its support to all governments, particularly those which are implementing strong policies for a prompt recovery." The five policies suggested are presented in Table 2.

The WTTC's managing director Messina "estimated that, once the outbreak is under control, it would take up to 10 months for the tourism sector to return to its normal levels." Whilst these policies will encourage tourism-related activities, what does it mean for the environment? As highlighted by Harvey (2020), there is nothing to celebrate in relation to the spread of COVID-19, even if there has been some temporary decline in carbon emissions, because ultimately, people's lives have been shattered in so many ways. Harvey (2020) recognises how global emissions often bounce back quickly after a global disturbance comes to an end. However, to ensure society avoids Scenario 1 becoming a reality, changes to habitual practices are required. This paper has stressed that our industries cannot survive without tourists and that our natural environment is a key resource for the industry. Scenario 1 clearly highlights the potential devastating reality for our global community if we continue with the current level of carbon emissions. Such levels will lead to the depletion of the natural environment. Soon, our travel industries could be depleted of both tourists and resources; by mid-century, our industries may cease to exist. For many, travel will no longer be part of our leisure activities or a source of income for communities. COVID-19 presents an opportunity to change. However, this means "business as usual" should no longer be the long-term objective. This will be significantly challenging, but through new stories, new narratives, society can begin to change its attitudes and behaviours towards travel and ultimately support the long-term health of our environment and that of the industry.

## Analysis: a future perspective for travel
### Future of tourism we should create

*Tourism is part of the problem; it now must come up with solutions!* Now is a time for reflection and ultimately change, not necessarily because we want to, but out of necessity. As we moved into the latter stages of 2020, the travel and leisure sectors found it difficult to operate, and many were faced with the potential of closing completely. According to the UNWTO (2020), the COVID-19 pandemic caused a 22% fall in international tourist arrivals during the first quarter of 2020. Whilst the months of June to September of 2020 saw the opening of international borders for travel between some countries, the numbers are significantly lower than previous years with the UNWTO suggesting anything between a 60% and 80% drop in international tourist arrivals across the year. The initial optimism for a

| Table 2 WTTC policies for supporting travel post-COVID-19 | |
|---|---|
| *Policy* | *Description* |
| 1. Improve travel facilitation | Remove or simplify visas wherever possible, reduce the cost and improve processing times where practical, accept other visas when appropriate and introduce more efficient technologies for seamless and secure travel |
| 2. Remove barriers | Ensure that unnecessary barriers are removed or relaxed to alleviate pressure at ports and airports, including temporarily lifting of the 80–20 slot policy rule, ports assignments and implement flexible working visa for the industry in some countries with existing limitations, especially in hospitality and tour operation |
| 3. Ease fiscal policies | Reduce and remove travellers' taxes which increases the cost of travel, e. g. air passenger duty and similar airport, port and hospitality taxes around the world |
| 4. Introduce incentives | Introduce relief and incentives to support business continuity for companies which have been most negatively impacted by the virus. Small and medium-sized enterprises (SMEs) in particular will take longer to recover |
| 5. Support destinations | Increase budgets and assign resources for promotion, marketing and product development purposes in destinations when they are ready to welcome visitors again |

Source: World Travel and Tourism Council (2020a)

quick recovery is diminishing, as second wave COVID-19 outbreaks spread across the globe and continue to impact travel-related sectors. Reports suggest that "COVID-19 could impact travel for years to come" (Gradek, 2020). Consequently, in light of these challenges our industry needs to adapt. Humanities' long-term existence and enjoyment of planet earth depends on our ability to adapt. Individually and collectively, we must reduce our travel-related impacts on the environment. Individually, we can begin and should start doing this. However, travellers, tourists, and the individual consumer need support in achieving this. This is where the industry and key stakeholders need to start taking responsibility and initiate relevant changes. One method of carrying this out is by creating new stories for travel and tourism. People of influence need to start creating and populating new stories into the public domain so that consumers start to behave differently. Then, our industry will start taking responsibility in supporting the planet. As researchers, practitioners and travellers, we must readdress the meaning of travel and how it should be carried out. Through new beliefs and values, we can create an industry that continues to provide great benefits for communities and people around the globe whilst playing our role in reaching net-zero carbon emissions.

> Nothing speaks to who we are and how we perceive the world more than our core beliefs and values. Inescapably, it is these beliefs and values that serve as the lens, or filter, through which we interpret our sensory experience (Loehr, 2007, p. 107).

The COVID-19 pandemic is making humanity behave differently, social distancing, living in our homes and generating new appreciations towards nature and the outdoors, as restrictions on outdoor activities (were) and continue to be in place for most countries. On 24 March 2020, the BBC (2020) reported that a quarter of the world's population was living under some form of lockdown, a figure that surged when India, the world's second most populous country, imposed a strict lockdown on its 1.3 billion citizens. Another report noted that around one in five people around the globe was under lockdown (Davidson, 2020) in March. In April, Sandford (2020) reported that half of humanity was in lockdown as 90 countries called for confinement, with more than 3.9 billion people asked or ordered to stay at home by their governments to prevent the spread of the deadly COVID-19 virus (during the first wave). Self-isolation would have led to much individual self-refection. Many people recognised that they are capable of working from home, commuting less, consuming less

and spending more time with their families and in nature reserves/parks within their local communities (the latter encouraged owing to social distancing and limited outdoor activity implemented by governments). All this time to reflect has the potential to change who we are and how we behave, and the tourism industry should move quickly and use this as an opportunity to start generating new stories of travel. Stories and narrative that focus more on Figueres and Rivett-Carnac's (2020) second scenario, as presented above in 'the world we must create', where travel continues to have a positive impact on people, communities and the environment.

Travel and tourism are interwoven with all domains of human existence and impact the lives of most people on the planet, be it directly or indirectly from supply and/or demand perspectives. Therefore, if Scenario 2 or something similar is to become our future reality (one which is much more promising than Scenario 1), then not only travel but also many other industries will have to play their part in contributing and supporting social change and encourage a stronger work/life balance. Encouraging change and establishing the required technological advancements for society to prosper is our next step. Significantly, travel- and tourism-related industries need to take stock now and realise that there are alternative futures available and to initiate positive change. Table 3 presents the types of travel that should be encouraged and discouraged. Ultimately, it is these areas of travel where stories should focus when promoting and marketing travel.

Whilst Table 3 focuses on types of travel, other related industries will also need to adapt and/or focus on specific areas to support a change in travel and tourism consumption. The following provides some future areas that should be explored:

- *Events*: Encourage events with a focus on local heritage and contemporary culture, from food, art, fashion, music, technology, religion and spirituality. The events industry will play a significant part in supporting local communities, as the future is likely to see people working closely with their communities. Therefore, communities will need to embrace local culture.

- *Hotel and accommodation*: Corporate hotel companies should look to work closely with individuals who operate on sharing economy sites such as Airbnb, helping them to promote and lodge their accommodation services (rooms, apartments, houses). This would allow large corporate companies to reach out into communities where they do not have their own hotels/accommodation.

- *Food and beverage*: The future of this sector will need to see greater focus on experience-based cooking classes, more vegetarian and fish dishes and gradually move away from meat consumption (meat consumption being a high carbon emitter). Greater use of local produce is inevitable to reduce exports, as these will become less readily available and expensive.

- *Shopping and retail*: The industry needs to promote more sustainable companies and products and encourage consumers to re-engage with the entire manufacturing and production process. This could become part of the purchasing/shopping experience.

- *Transport*: Greater encouragement and support for land-based options. Tourists looking to travel locally, domestically and regionally need greater support from the industry. Long term, the industry needs to move towards renewable fuels to support the tourism industry.

The tourism industry will need support. Key industry stakeholders such as the UNWTO, the WTTC, destination marketing organisations, travel companies, local and national governments all need to actively promote and encourage local and domestic travel and tourism over international travel (especially short international visits). As noted, key travel stakeholders need to support the industry be encouraging alternative stories of travel. An example of this is provided by VisitEngland in partnership with tourism organisations in London, Northern

| Table 3 | Focus of future stories for travel and tourism |
| --- | --- |
| Type of travel | Description |
| | Encouraged |
| Local tourism | Tourists should be encouraged to visit more visitor attractions within their own cities. Focus should be on local heritage, arts, music and food with the aim of encouraging community togetherness |
| Domestic tourism | Instead of travelling aboard for holidays, consumers should be encouraged to spend more time visiting and holidaying in their own countries. As tourists visit more places in their own countries, domestic tourism will see increased benefit to smaller communities |
| Slow international leisure travel | International leisure travellers should take longer holidays and travel more by land. Tourists are more likely to visit a range of locations, and therefore the benefits of tourism are likely to reach more communities |
| Slow international business and leisure travel combined | If business cannot be conducted via digital means, then visits should coincide with personal vacations |
| Gap years/backpacking for all ages | Travellers at all ages should be encouraged to take gap years, allowing people to visit multiple destinations and taking their time to travel across different regions and continents by land |
| Environmental conservation and education | Greener vacations that focus on environmental conservation and tree planting are needed. Focus on environmental education and giving back to the environment is key as tree planting offsets carbon emissions |
| Discouraged | |
| Business travel | Travel for business purposes where individuals or small groups are visiting international destinations, using short-to-long haul flights should be discouraged. Technology and virtual reality chatrooms now offer excellent alternatives spaces for such business interactions to take place |
| Short regional travel | Low-cost airlines led to a significant increase in weekend city breaks in international destinations, as tourists increased regional travel visits |
| Short-to-long haul travel | Tourists traveling long haul for short travel visits need to be significantly reduced |

Ireland, Scotland and Wales who have decided to launch a UK-wide campaign to encourage people to take a domestic break during autumn and winter (VisitBritain, 2020). Their emphasis is on domestic travel, and through a new marketing campaign they are generating and promoting new ideas and ultimately new stories.

However, much more will need to be done. Going forward, more land-based renewable-fuel transport means need to be invested in, to support the movement of people locally and internationally. Land-based travel should become cost effective for all tourists, and better access is needed across countries (such as greater variety of inter-rail passes). Families should be encouraged to travel at different times of the year, and holiday duration time needs to become more flexible (unlike the discriminating approach currently taken in the UK where families are penalised for taking vacations outside of school holiday periods, leading to increased prices during seasons where demand is higher). Society should move away from the 12-month holiday allowance provided by employers. Instead companies should allow staff to build up holiday allowances. This would allow employees (of all ages and at different stages in their careers) to take "gap years," travelling farther distances over longer periods of time by land resulting in less desires to take shorter visits to international long-haul destinations. This paper is not suggesting that international travel should cease. Instead, those travelling longer distances should do so by taking their time, taking the slow road, just like our ancestor did. The recommendations here, if implemented could arguably go some way in reducing our carbon emissions and importantly, support the global goal of

achieving net-zero carbon emission. It will take time to shift our values and beliefs and eventually our behaviours towards more localised and domestic travel. If we do not change, we could end up, in our lifetime, not being able to travel at all. The promotion of travel should focus on the types identified in Table 3. When selling holidays and travel vacations, society should be marketing stories and travel experiences to consumers that promote more local and domestic experiences. International travel should focus on marketing stories that promote longer (in time) travel experiences. Holidays offer greater levels of cultural enrichment through increased interaction with local communities (as social distancing measures are reduced). Importantly, as noted these changes need support and encouragement from key stakeholders. Only then can new stories, which market and promote a slower more involved and interactive tourist consumer, become a possibility.

## Conclusion

This paper has stressed the potential challenges facing the global community in the next few decades, and in a worst-case scenario, not only will travel and tourism likely come to an end for most but also humanity itself could be on the brink of complete change, even extinction. Travel and tourism and its related sectors are a significant contributor to carbon emissions and extremely vulnerable and reliable on nature, as clearly evidenced by the COVID-19 outbreak. The travel and tourism industry must change its values and beliefs to change its behaviours. Today, travel is faced with many challenges, as issues such as overtourism are leading to negative cultural and environmental impacts. The potential future travel suggestions presented in this research could solve some of the biggest challenges facing not only the industry but also our natural environment. Tourism-related businesses are finding it difficult to survive continued bouts of human isolation and lockdown measures brought about by governments in the face of rising COVID-19 infections. However, there are positives to be taken from the pandemic. Less international travel is benefiting the environment, and more people are seeking local and domestic travel experiences. Therefore, encouraging (and discouraging) more local travel (and others identified in this study) can spread tourism to more remote communities, because tourists would be encouraged to travel more by land and travel for longer periods of time (encountering more communities). The intention is for society to reduce its carbon footprint, whilst also bringing about positive benefits of tourism to more communities. To achieve this, a stronger collective effort across the travel and tourism community will be needed, one where the travel community encourages a move to more local and domestic tourism, where slower land-based methods of travel (for longer periods of time) are promoted. Travel- and tourism-related sectors will need organisations and government bodies (local and national) to support them in achieving such change. COVID-19 should be used as the driver of new forms of travel, because there have been some (travel related) positive impacts that can be taken from the pandemic.

It is no longer a matter of when we should change. Mother nature is entering a tipping point, and travel-related industries need to take stock and change their behaviours now. The change will not be easy because of the established nature of the travel-related industry. But together society can shift the story of travel, we can change the narrative and still benefit from travel-related consumption. In fact, the areas identified is this paper will likely lead to stronger communities and greater tourism benefits to more groups of people (from supply and demand perspectives). If the travel industry does not start adapting and making the necessary changes to support the global community to reach net-zero carbon emissions, then changes will be forced onto us by mother nature. Before then, what is likely to happen is a gradual move towards monitoring and limiting individual travel, through carbon cards, carbon taxes or carbon trading schemes (especially for aviation services) to curtail unchecked future growth in tourism-related emissions (Lenzen et al., 2018). If we do not change our behaviours, we will begin to see significant climatic challenges, resulting in vulnerable, desperate and dispersed communities. Cities and countries will go into lockdown as basic resources (food, water and

clear air) for human survival will become increasingly scarce. We now need to behave differently in coming decades, and to do this we will need to change our travel consumption patterns. The scientific evidence is now overwhelming, but still the global community is not listening. Therefore, this paper is a call to arms to the entire global travel community to start changing our behaviours, we own it to the planet, to our global home. The scientific data sets and statistical numbers will not be enough to challenge people's values and beliefs and do not emotionally engage us. For those in power and positions of influence, it is their responsibility to drive the change, so now is the time to start changing the narrative. It is time to create, share and promote new stories of travel and tourism that the wider community can emotionally engage with and believe in. These new stories should ultimately and collectively establish a new meaning for the future of travel, one where we choose a future for tourism that supports the climate crisis.

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