1 # Webcam travel:
2 # A preliminary examination of psychological well-being
3
4

5 **Abstract**
6 Travel has been identified as a significant contributor to psychological well-being. The recent
7 COVID-19 global pandemic disrupted travel patterns and behaviours, thereby negatively affecting
8 the psychological health and well-being of those involved. With accelerating technology use,
9 multiple forms of virtual tourism have emerged as alternatives to physical travel, including travel
10 via webcam. Webcam travel has received limited scholarly attention, despite the unique capacity
11 of global place-based webcams to offer cost-free, real-time viewing of places and destinations.
12 Similarly, there has been limited research on how participation in webcam travel influences
13 psychological well-being. This research note examines how the digital experience accelerates the
14 hedonic and eudaimonic psychological well-being of webcam viewers by proposing a new model
15 – Webcam Travel DREAMA (detachment-recovery, engagement, affiliation, meaning and
16 achievement) model. The findings provide a better understanding of webcam travel and
17 psychological well-being, establishing potential directions for future researchers.
18
19
20 **Keywords:** Webcam travel, digital experience, psychological well-being, DREAMA

21
22

23 **Introduction**
24 Physical, non-virtual, tourism experiences frequently have a restorative effect on individuals,
25 providing rejuvenation and enhancing the sense of psychological well-being amongst tourists
26 (Yang and Wong, 2020; Uysal et al., 2016). However, changing work-life practices, major
27 geopolitical events and the continuing impacts of the COVID-19 pandemic are prompting an
28 acceleration in the adoption of new technologies that complement, and sometimes replace
29 physical leisure travel (Repo, 2021). Engagement in virtual tourism, or tourism in a simulated
30 environment, is thus becoming increasingly popular (Deng et al., 2021). Mattila et al. (2020)
31 found that restorative experiences generated by virtual tourism closely resemble those attributed
32 to physical tourism. This prompts the question of whether tourism in its virtual form is capable
33 of contributing to the psychological well-being of virtual tourists? To address the gap, this
34 research note presents an exploratory investigation into the role of webcam travel in generating
35 psychological well-being amongst online viewers.
36
37 In addition to pre-recorded visuals, virtual tourism extends to live, real-time virtual reality (Deng
38 et al., 2021; Jarratt, 2021b; Repo, 2021). Hu et al. (2017) defined live virtual tourism as online
39 activities that allow streamers to broadcast videos to viewers in real-time. Deng et al (2021) noted
40 an increase in the popularity of live virtual experiences offering engagement in real-time online
41 travel, especially in China. Webcam travel involves an online act of viewing places or attractions
42 through placed-based webcams in real time (Jarratt, 2021b). Suitable webcam locations include
43 city centers, resorts, landmarks, beaches, and wilderness areas which deliver a distinct experience
44 through high resolution webcam footage (Jarratt, 2021b). The digital travel user experience
45 involves multiple touchpoints on different devices, platforms, and interactions (Rosenzweig,

46   2015), with the journey combining cognitive experiences (perceptions), emotional experiences
47   (affective reactions), and ergonomic factors (ease of use experiences) (Berni and Borgianni, 2021).
48   Accessibility is a significant distinguishing feature of webcam travel which is a differentiator from
49   other forms of virtual tourism. While the use of webcams can be contentious because of privacy
50   issues, the growing popularity of webcams in tourism is evident (Bradley and Clarke, 2011). For
51   instance, there have been more than 150 webcams installed in major national parks in the United
52   States since 2019 (Gray and Wikle, 2021), thereby providing viewers with opportunities to watch
53   flora and fauna several times a day (Richardson, 2022). Webcam travel capitalizes on the unique
54   capacity of global place-based webcams to offer cost-free viewing. The only required equipment
55   is a device (laptop/cellphone) with Internet connection (Repo, 2021). Additional benefits for
56   webcam viewers are the absence of time constraints and flexibility to switch between places and
57   destinations. These characteristics give webcam travel the advantage of compatibility with the
58   short attention span of online viewers (Richardson, 2022). Timothy and Groves (2001)
59   recommended further research on adopting webcams as a tool in the tourism discipline, though
60   there has been very limited subsequent scholarly examination of the webcam travel experience
61   (Repo, 2021) and none on webcam travel and psychological well-being.

63   It has been well established that psychological well-being is both hedonic and eudaimonic
64   (Seligman, 2004). Hedonic well-being connotes immediate happiness and enjoyment (Ryan and
65   Deci, 2001; Gilbert and Abdullah, 2004). As the key form of well-being, hedonia is a more
66   peripheral and fleeting sense of well-being akin to pleasure (Lengieza et al., 2019), whilst
67   eudaimonia reflects a more profound sense of well-being. Eudaimonic well-being refers to
68   concepts of personal growth, self-actualization and purpose of life (Ryan and Deci, 2001; Ryff,
69   1989). Hybrid, multidimensional, hedonic-eudaimonic models have emerged and have been
70   applied to the understanding of tourism experiences (Filep and Laing, 2019). These have
71   included the PERMA (positive emotions, engagement, relationships, meaning and achievement)
72   model which comprises five building blocks of well-being (Seligman, 2004) and the DRAMMA
73   model which proposes five well-being dimensions of the leisure experience (including tourist
74   experiences): detachment-recovery, autonomy, mastery, meaning, and affiliation (DRAMMA)
75   (Newman et al., 2014). Recently, Filep et al. (2022) proposed a new model entitled DREAMA
76   (detachment-recovery, engagement, affiliation, meaning and achievement) that adopts a holistic
77   perspective to explain eudaimonic and hedonic psychological well-being. DREAMA extends
78   beyond PERMA and DRAMMA by applying the relationship (affiliation) dimension to both
79   social and natural environments. These relationships would be applicable to virtual tourism, and
80   particularly in the case of webcam travel, which offers real-time and unaltered viewing of the
81   natural environment. Though research on how psychological well-being can be affected via
82   webcam travel experiences is absent, it is increasingly important to understand these effects in
83   light of the scale and growth of the webcam travel phenomenon. According to a major webcam
84   travel website, Webcamtaxi, a new viewing record was set on March 2020, with 1,138,170 views
85   of nature in a single day (Webcamtaxi, 2021). Other popular webcam travel websites such as
86   EarthCam, Skyline webcams, and Explore.org have seen similar significant increases in
87   viewership. For example, an 85% increase in Explore.org's virtual nature webcam usage has
88   been reported over the past two years (Granville, 2020). Although Jarratt (2021a) has recently
89   noted that webcam travel can play a useful role in alleviating the psychological distress that
90   arises from a sense of loneliness, there is further scope to understand the psychological impacts
91   of webcam travel.

92

Analysis approach

The current study adopts an integrative literature review approach in acknowledgment that the relationship between webcam travel and psychological well-being has received no prior attention (Jarratt, 2021a). This approach involves reviewing, critiquing and synthesizing a body of literature in the pursuit of new understandings, frameworks and perspectives on the field of interest (Torraco, 2005). It is especially useful for addressing new or emerging topics offering the potential for preliminary conceptualizations (Snyder, 2019; Torraco, 2005). The current researchers have followed three stages – identification, analysis and synthesis. The first stage involved identifying (locating and familiarizing) with the concept of virtual tourism experience through a keyword search. This entailed searching Web of Science and Google Scholar platforms for the following phrase that fits the aim of the study: virtual tourism experience connecting to nature. Google Scholar as a web-search engine like the Web of Science (Harzing, 2017) allows free access to scholarly literature across disciplines and databases (Zientek et al., 2018). The search was conducted in February 2022 and a total of 109,025 published works were identified, including English peer-review papers, conference papers, theses, books on virtual tourism experiences and connections to nature. In this initial exploration, webcam travel emerged as an identifiable research interest while Jarratt (2021a, 2021b) was identified as the scholar who first introduced the term webcam travel into the literature. A critical analysis of the existing literature on webcam travel was adopted in the second stage. The researchers in this second stage entered the following keywords on the two platforms: well-being of webcam travel. Although 1,411 results were generated in aggregate, the process involved discussions amongst the authors to select only those items that refer to well-being, webcam travel as well as virtual nature. This severely narrowed down the scope and generated only 16 relevant published works, perhaps because of the relative novelty of the topic. The third, final stage involved the pursuit of consensus amongst the authors to synthesize the preliminary concept of webcam travel and its contribution to psychological well-being (as opposed to social, ecological or other forms of well-being). Five published works on webcam travel and psychological well-being (analysed through DREAMA) were ultimately identified on the basis of quality, relevance, and clarity (see Table 1).

121

Table 1 Key literature related to psychological well-being of webcam-travel

Author (year), aim	Journal	Title	Evidence of well-being	DREAMA Dimension
Jarratt (2021b) aims to define the experience of webcam-travel based on the findings of COVID-19 lockdown.	Annals of tourism research	Webcam-travel: Conceptual foundations	-"feeing connected with the place through watching in real-time" (2021b:3);	Affiliation
			-"a day-dreamlike state in which one feels present & transported" (2021b:3);	Detachment-Recovery
			-"a sense of freedom" (2021b:3).	Achievement & Meaning
Jarratt (2021a) aims to explore the experience of webcam-travel during COVID-19 lockdown.	Tourism and hospitality research	An exploration of webcam-travel: Connecting to place and nature through webcams during the COVID-19 lockdown of 2020	-"uplift in mood" (Positive emotion, 2021a:162);	Detachment-Recovery
			-"offers potential wellness benefits" (Subjective well-being, 2021a:156);	Detachment-Recovery
			-"brought back happy memories" (Happiness, 2021a:165);	Detachment-Recovery
			-"83% felt more positive" (Positive emotions, 2021a:165);	Detachment-Recovery
			-"90% found it to be relaxing" (Relax, 2021a:162);	Detachment-Recovery
			-"a feeling of connection, nostalgia and a sense of freedom"(2021a:163);	Affiliation, Meaning & Achievement
			-"it offers meaning and purpose in times of anxiety and loneliness…It gives us something to look forward to, to savour and to focus on."(2021a:158);	Meaning

			-"90% felt a sense of connection the place or nature" (2021a:162);	Affiliation
			-"fascination/engagement" (2021a:162);	Engagement
			-"viewing webcam images of places we know can be considered as a potential coping mechanism for lockdown" (2021a:165).	Affiliation & Achievement
Darcy et al. (2022) aims to explore deeper understanding of nature engagement in relation to health and wellbeing.	International Journal of Environmental Research and Public Health	Understanding the Role of Nature Engagement in Supporting Health and Wellbeing during COVID-19	-"webcam of natural environments (specifically blue spaces) brought optimism, hope, and nostalgia" (2022:11)	Meaning
			-"digital nature provided valuable opportunities to connect safely with natural places that were important to participants, extending their worlds beyond that of their immediate environment." (2022:11)	Affiliation
			"demonstrates a strength of feeling of release and escapism, which often contrasted to feelings of 'being stuck' or 'trapped'" (2022:11)	Detachment-Recovery
			"digital nature engagement (i.e., webcams) can foster psychological resilience during lockdowns" (2022:19)	Detachment-Recovery & Achievement
			-"digital nature engagement may serve as viable health supporting interventions through facilitating mindfulness, social engagement, and nostalgia." (2022:21)	Meaning & Engagement

|				
Skibins et al. (2022) aims to examine the viewer's mental health and pro-conservation attitudes via wildlife-oriented webcams	Human Dimensions of Wildlife	Digital modalities, nature, and quality of life: mental health and conservation benefits of watching bear cams	"very relaxing and rejuvenating I'm going to save this page for work break." (2022:5)	Detachment-Recovery
			"viewing the bears helped reduce stress and improve overall mood and well-being." (2022:7)	Detachment-Recovery
			"viewing the bears and Alaska landscape has educated me tremendously and given me more of an understanding of an animal which I knew nothing about before I began watching the cams." (2022:7)	Achievement
			"since I can' afford to go in person, I am extremely happy to be viewing these beautiful bears!" (2022:8)	Detachment-Recovery
Loomis et al. (2018) aims to find out brown bear viewer's viewing value via nature-related webcams.	Journal of Environmental Economics and Policy	A method to value nature-related webcam viewing: the value of virtual use with application to brown bear webcam viewing.	-"informational value: wildlife media as providing scientific information in a pleasure way to oneself, and if a parent, to their children" (2018:454);	Achievement, Engagement & Affiliation
			-"entertainment value: seeing wildlife in its natural habitat was enjoyable" (2018:454).	Detachment-Recovery & Affiliation

Webcam travel and hedonic and eudaimonic well-being

Based on the literature analysis it was observed that webcam users find enjoyment from the feeling of being transported to the viewing place (Jarratt, 2021b). The experience offers a pastime, creates feelings of joy and a feeling of an escape from hectic lives. Webcam travel is considered as entertainment when physical disability, financial problems, or lack of time make physical travel inadvisable (Loomis et al., 2018). Webcam travel brings back happy memories for those who are viewing places where they have made previous physical visits, thereby generating positive emotions. Webcam travel also allows viewers to be transported away from lockdowns and/or immobilities by presenting nature in its real, live, esthetic, unedited scenery. It has been noted that people are more optimistic, hopeful and nostalgic when connected to nature (Darcy et al., 2022). Several studies have suggested that natural environments can offer significant relaxation, positive feelings, and calm (Hakoköngäs and Puhakka, 2021; Bimonte and Faralla, 2014; MacKerron and Mourato, 2013). Jarratt (2021a) revealed that in webcam travel 90% of webcam viewers felt relaxed and connected to the places they visited, while 83% expressed uplifted spirits and feelings of freedom.

However, tourism activity offers participants not only pleasure and hedonic well-being but more profound well-being rewards (Su et al., 2020). In Jarratt's (2021a) study, it was noted that a sense of freedom is an important outcome of webcam travel. Webcams facilitate access to otherwise constrained travel destinations by providing views of highly restricted areas, like active volcanos and endangered species. Webcam viewers form real-time connections with places. They enhance their understandings of purpose in life when journeying via a webcam, thereby accelerating feelings of personal growth and self-acceptance. Webcam travel serves as a window into real environments, contributing a feeling of connection with the outside world, and this is especially important after the global pandemic with human movements restricted due to safety concerns (Jarratt, 2021a). Participation in webcam travel generates feelings of togetherness when viewing lakes, mountains, rivers via webcams and strengthens relationships between participants and nature. Webcam travel may also be considered a social networking activity that can strengthen relationships with friends and family (Loomis et al, 2018). Online viewers are able to acquire new knowledge about destinations, culture and/or wildlife (Skibins et al., 2022).

A conceptual model of webcam travel and DREAMA psychological well-being

A viewer-oriented conceptual model which has been guided by the literature review is proposed to illustrate the relationship between webcam travel and psychological well-being (see Figure 1).
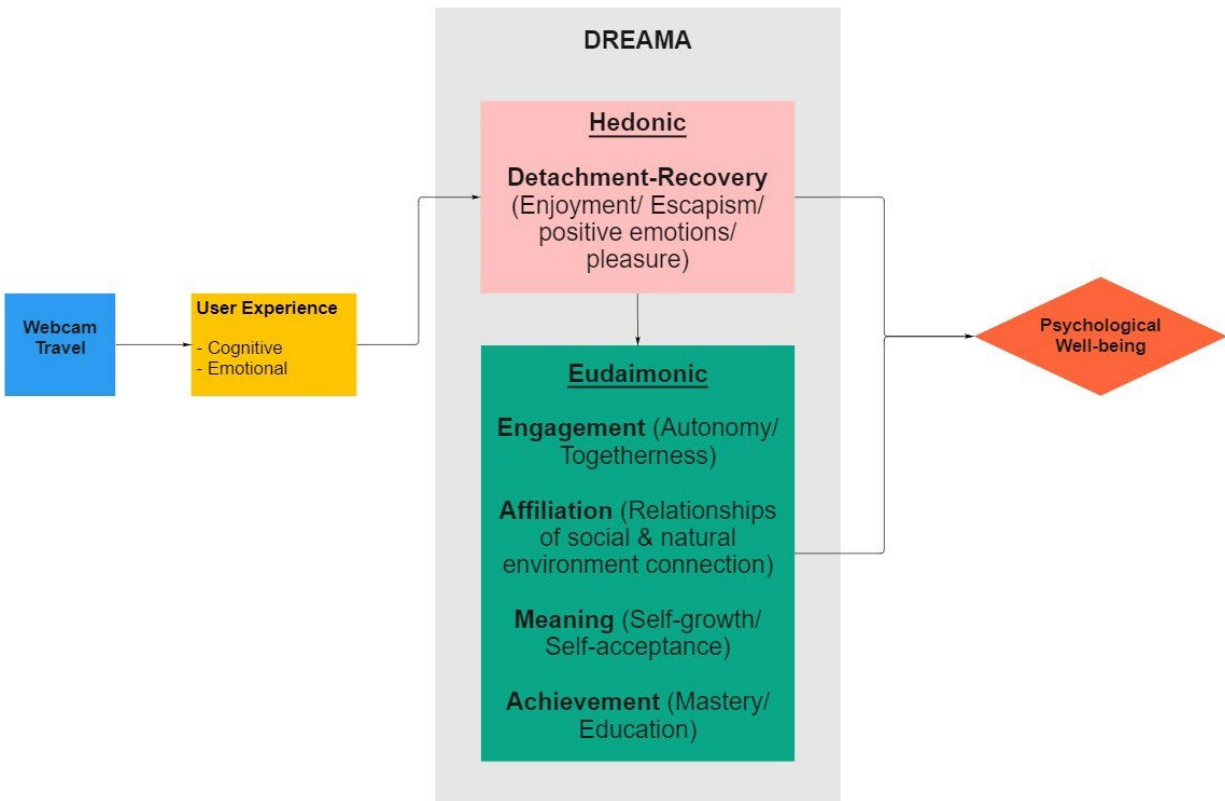
Figure 1. Webcam Travel DREAMA Model (Adapted from Filep et al (2022) DREAMA tourist well-being model)

The novel Webcam Travel DREAMA model offers the capacity to examine the influence of webcam travel on psychological well-being. When viewing places and attractions through webcam travel, viewers become immersed in a virtual world and have feelings of daydreaming and nostalgia for places and attractions that they have visited virtually (Jarratt, 2021a; Repo, 2021). It has been observed that such experiences generate positive emotions and are associated with an escape from daily lives (Jarratt, 2021a, 2021b). The virtual experience through webcam travel stimulates stress reduction and restoration as well as relaxation (Repo, 2021; Skibins et al., 2022). These hedonic effects resemble the dimension of detachment-recovery in the model since viewers separate or detach themselves from their everyday settings and relax, restore or recover from stress when immersed in a virtual environment.

When webcam viewers experience this hedonic well-being through detachment recovery, the process has a ripple-effect to underlying eudaimonic well-being dimensions (Engagement, Affiliation, Meaning and Achievement). For example, the sense of separation or detachment-recovery influences the well-being dimension of engagement in the model. The viewer detaches from everyday worries and engages in the experience. As a newer form of digitally mediated

62 leisure activity, webcam travel therefore requires focused attention, independence and self-
63 direction (Newman et al., 2014). The sense of engagement allows viewers to explore different
64 places and attractions through the course of the digital journey. In Jarratt's study (2021a: 162)
65 webcam travel experiences were found to lead to "a sense of fascination and engagement". The
66 remaining DREAMA (Filep et al., 2022) dimensions are also generated by the virtual experience,
67 notably affiliation to nature and other people, meaning and achievement. Affiliation with the
68 digital nature has been identified as an important quality of webcam travel experience (Darcy et
69 al., 2022; Jarratt, 2021a). Social connections are equally evident. In Loomis et al's (2018) study,
70 parents guided their children when viewing brown bears via webcams. Such interaction
71 strengthened relationships between parents and children. Webcam travel has also been identified
72 as offering "meaning and purpose in times of anxiety and loneliness" (Jarratt, 2021a: 164), most
73 recently during the COVID-19 pandemic. Finally, the achievement dimension was found in
74 webcam travel through the mastery of new knowledge. In prior studies, the webcam virtual
75 experience allowed viewers to master new knowledge about virtual destinations and settings,
76 (Repo, 2021), including wildlife species (Loomis et al., 2018; Skibins et al., 2022).
77
78 **Propositions for future research**
79 Based on the evidence reviewed, it is proposed here that webcam travel facilitates both hedonic
80 and eudaimonic psychological well-being for viewers. Following the COVID-19 pandemic, the
81 United States National Alliance on Mental Illness (2020) estimated that one in five of American
82 adults experience mental illness annually, with 26.3 million adults receiving virtual mental health
83 services. Webcam travel stands out from other forms of virtual tourism for a number of qualities:
84 it is live, offers unaltered natural images (Jarratt, 2021b), is cost-free, easy to use, and
85 disseminates sustainability and conservation values (Skibins et al., 2022). This suggests that an
86 examination of the psychological well-being that is generated through webcam travel
87 experiences can extend scholarly discussion and is both timely and relevant (Brazão et al., 2022).
88 Based on the conceptual model, the following propositions may guide future research.
89
90 Proposition 1: conduct research on well-being impacts of viewing nature through webcams. It is
91 understood that most webcams in webcam travel are used to observe natural settings (mountains,
92 rivers, wildlife) (R-Toubes et al., 2020). As an example, the iconic natural attraction of Niagara
93 Falls in Canada is observed via cameras located at a nearby resort which broadcast footage through
94 Earthcam (a major webcam travel website), with accumulated 10,976,139 views in the year 2022
95 (Earthcam, 2022). Webcam viewers can compare changes in the scenery of the Niagara Falls (see
96 Illustration 1), facilitating a variety of psychological responses. The model can be applied to study
97 and analyse the psychological effects of viewing nature on viewers.
98
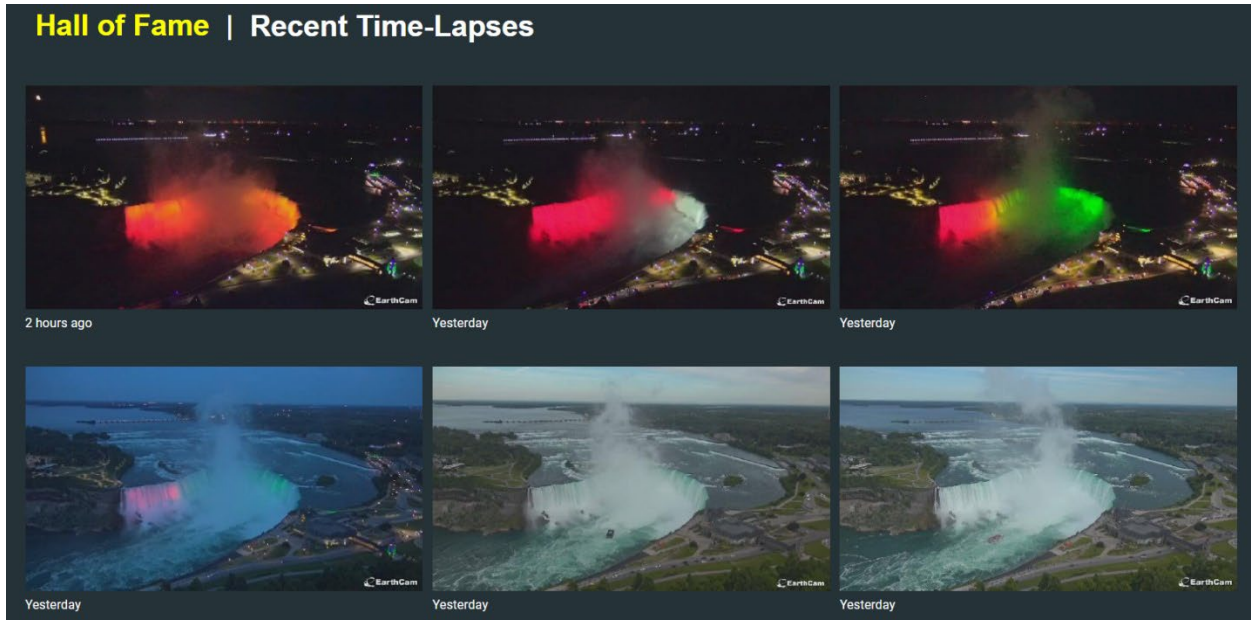
Illustration 1: Niagara Falls (Earthcam, 2022)

Proposition 2: apply the DREAMA dimensions to understand the impacts of digital environments on tourists post-pandemic. Growing digitalization in tourism will continue, especially post-pandemic. Based on work by Utkarsh and Sigala (2021) there are three reasons for this trend: 1) growing open-mindedness about technology adoption amongst tourists after COVID-19 as opposed to pre-pandemic; 2) tourists believe that technology provides a touchless and safe service environment compared with more physical forms of travel; and 3) tourists expect a more sustainable and responsible form of travel which is provided through digital environments (Utkarsh and Sigala, 2021). However, despite this accelerating adoption of technology, and post-pandemic changes in tourist preferences, the psychological impacts of engaging in webcam travel are not well understood.

Conclusion

Note has been made of the limited research on webcam travel in the virtual tourism literature. Despite encouragement by Timothy and Groves (2001) to conduct more research on webcams in tourism over two decades ago, there have been few subsequent contributions (Jarratt, 2021a). This research note suggests a need for more research on webcam travel with particular reference to the psychological well-being of participants (virtual tourists). Such forms of virtual tourism merit promotion as a prospectively beneficial alternative to physical tourism. Noting that most current webcam travel involves viewing nature and wildlife, it is suggested that coverage should be extended to other leisure tourism activities. For such purposes, it is recommended that empirical data should be applied using the proposed model and that researchers should explore the psychological well-being of webcam travel in leisure tourism activities by applying the Webcam Travel DREAMA model. Considering the novelty of the psychological well-being of webcam travel, a mixed-methods design is proposed that can provide depth and breadth to the

127 research topic. Adopting this approach would allow researchers to obtain rich, first-hand
128 information about the topic (Sundler et al., 2019), while also developing quantitative
129 measurement scales consistent with the DREAMA dimensions (Filep et al, 2022).
130
131 It will likely become the norm post-pandemic for the adoption of technologies to accelerate
132 along with concern about sustainability and tourist well-being (Utkarsh and Sigala, 2021).
133 Webcam travel offers promising potential as a cost effective and financially viable alternative to
134 physical leisure travel. It also serves as a supplement or alternative to some tourism experiences.
135 Research is now needed to examine how webcam travel can benefit various tourism stakeholders
136 and where progress is being made towards this end.

137
138 **References**

139 Berni A and Borgianni Y (2021) From the definition of user experience to a framework to
140   classify its applications in design. *Proceedings of the Design Society* 1: 1627-1636.
141 Bimonte S and Faralla V (2014) Happiness and nature-based vacations. *Annals of Tourism*
142   *Research* 46: 176-178.
143 Bradley ES and Clarke KC (2011) Outdoor webcams as geospatial sensor networks: Challenges,
144   issues and opportunities. *Cartography and Geographic Information Science*, *38*(1), 3-19.
145   Brazão, A., Duignan, M., Jarratt, D., & Li, Y. (2022). Remotely researching leisurely
146   settings. Annals of tourism research. Darcy PM, Taylor J, Mackay L, et al. (2022)
147   Understanding the Role of Nature Engagement in Supporting Health and Wellbeing
148   during COVID-19. *International Journal of Environmental Research and Public Health*
149   19(7): 3908.
150 Brazão A, Duignan M, Jarratt D and Li Y (2022). Remotely researching leisurely
151   settings. *Annals of Tourism Research Empirical Insights*.
152   https://doi.org/10.1016/j.annale.2022.100048
153 Darcy PM, Taylor J, Mackay L, Ellis NJ and Gidlow CJ (2022) Understanding the Role of
154   Nature Engagement in Supporting Health and Wellbeing during COVID-19.
155   *International journal of environmental research and public health* 19(7): 3908.
156 Deng Z, Benckendorff P and Wang J (2021) Travel live streaming: an affordance perspective.
157   *Information Technology & Tourism* 23(2): 189-207.
158 Earthcam (2022) *Get the rush of the Falls!* Available at:
159   https://www.earthcam.com/world/canada/niagarafalls/thefalls/?cam=niagarafalls2.
160 Filep S and Laing J (2019) Trends and Directions in Tourism and Positive Psychology. *Journal*
161   *of Travel Research* 58(3): 343-354.
162 Filep S, Moyle BD and Skavronskaya L (2022) Tourist Wellbeing: Re-Thinking Hedonic and
163   Eudaimonic Dimensions. *Journal of Hospitality & Tourism Research*.
164   10963480221087964.
165 Gilbert D and Abdullah J (2004) Holidaytaking and the send of wellbeing. *Annals of Tourism*
166   *Research* 31(1): 103-121.
167 Granville A (2020) *Coronavirus: How to get a hungry hippo in your living room*. Available at:
168   https://www.stuff.co.nz/travel/news/121022199/coronavirus-how-to-get-a-hungry-hippo-
169   in-your-living-room.

Gray ES and Wikle JS (2021) Using webcam video feed to measure and evaluate national park recreation patterns. *Journal of Park and Recreation Administration*, *39*(1).

Hakoköngäs E and Puhakka R (2021) Happiness from Nature? Adolescents' Conceptions of the Relation between Happiness and Nature in Finland. *Leisure Sciences*. 1-20.

Harzing AW (2017) *Google Scholar is a serious alternative to Web of Science*. Available at: https://blogs.lse.ac.uk/impactofsocialsciences/2017/03/16/google-scholar-is-a-serious-alternative-to-web-of-science/.

Hu M, Zhang M and Wang Y (2017) Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework. *Computers in Human Behavior* 75: 594-606.

Jarratt D (2021a) An exploration of webcam-travel: Connecting to place and nature through webcams during the COVID-19 lockdown of 2020. *Tourism and Hospitality Research* 21(2): 156-168.

Jarratt D (2021b) Webcam-travel: Conceptual foundations. *Annals of Tourism Research* 91: 103088.

Lengieza ML, Hunt CA and Swim JK (2019) Measuring eudaimonic travel experiences. *Annals of Tourism Research* 74: 195-197.

Loomis J, Richardson L, Huber C, et al. (2018) A method to value nature-related webcam viewing: the value of virtual use with application to brown bear webcam viewing. *Journal of Environmental Economics and Policy* 7(4): 452-462.

MacKerron G and Mourato S (2013) Happiness is greater in natural environments. *Global Environmental Change* 23(5): 992-1000.

Mattila O, Korhonen A, Pöyry E, et al. (2020) Restoration in a virtual reality forest environment. *Computers in Human Behavior* 107: 106295.

National Alliance on Mental Illness (2020) *Mental health by the numbers*. Available at: https://www.nami.org/mhstats

Newman DB, Tay L and Diener E (2014) Leisure and subjective well-being: A model of psychological mechanisms as mediating factors. *Journal of Happiness Studies* 15(3): 555-578.

R-Toubes D, Araújo-Vila N and Fraiz-Brea JA (2020) Influence of Weather on the Behaviour of Tourists in a Beach Destination. *Atmosphere*, *11*(1), 121.

Repo R (2021) *Developing new virtual tourism experience based on customer value: Case Experience Kalevala*. Itä-Suomen yliopisto.

Richardson L (2022) The Economic Benefits of Wildlife: The Case of Brown Bears in Alaska. *Western Economics Forum*, 20(1), 20-29.

Rosenzweig E (2015) *Successful user experience : strategies and roadmaps.* Amsterdam, [Netherlands]: Amsterdam, Netherlands : Morgan Kaufmann.

Ryan RM and Deci EL (2001) On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology* 52(1): 141-166.

Ryff CD (1989) Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology* 57(6): 1069.

Seligman, M. E. (2004). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Simon and Schuster.

Skibins JC, Das BM and Schuler G (2022) Digital modalities, nature, and quality of life: mental health and conservation benefits of watching bear cams. *Human Dimensions of Wildlife*. 1-15.

216   Snyder H (2019) Literature review as a research methodology: An overview and guidelines.
217   *Journal of Business Research* 104: 333-339.
218   Su L, Tang B and Nawijn J (2020) Eudaimonic and hedonic well-being pattern changes:
219   Intensity and activity. *Annals of Tourism Research* 84: 103008.
220   Sundler A, Lindberg E, Nilsson C, et al. (2019) Qualitative thematic analysis based on
221   descriptive phenomenology. Nursing Open, 733–739.
222   Timothy DJ and Groves DL (2001) Research note: Webcam images as potential data sources for
223   tourism research. *Tourism geographies* 3(4): 394-404.
224   Torraco RJ (2005) Writing integrative literature reviews: Guidelines and examples. *Human*
225   *Resource Development Review* 4(3): 356-367.
226   Utkarsh and Sigala M (2021) A bibliometric review of research on COVID-19 and tourism:
227   Reflections for moving forward. *Tourism management perspectives* 40: 100912.
228   Uysal M, Sirgy MJ, Woo E, et al. (2016) Quality of life (QOL) and well-being research in
229   tourism. *Tourism Management* 53: 244-261.
230   Webcamtaxi (2021) *About us*. Available at: https://www.webcamtaxi.com/en/about-us.html
231   (accessed 22 September).
232   Yang FX and Wong IA (2020) The social crisis aftermath: tourist well-being during the COVID-
233   19 outbreak. *Journal of Sustainable Tourism* 29(6): 859-878.
234   Zientek LR, Werner JM, Campuzano MV, et al. (2018) The use of Google Scholar for research
235   and research dissemination. *New Horizons in Adult Education and Human Resource*
236   *Development* 30(1): 39-46.

237