



# Experiential Futures with Virtual Reality Tourism.

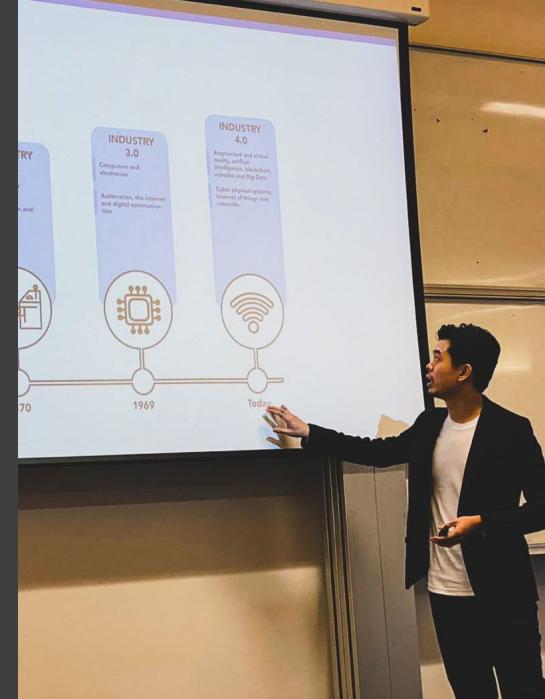
Ryan Yung

[ryan.yung@griffithuni.edu.au](mailto:ryan.yung@griffithuni.edu.au)



# Speaker | Educator | Expert on Digital Innovation and Transformation in Tourism

- Multiple peer-reviewed journal articles and book chapters
- DestinationQ 2018 VR/AR Tourism Masterclass @ Gold Coast Convention and Exhibition Centre
- 2019 Queensland Tourism Digital Workforce Development and Training Plan
- Implications of VR for Service Management / Marketing / Experience @ Malaysia, Germany, Scotland, England, Italy, NZ, Australia
- Judge @ Queensland Tourism Awards
- Publons: 90<sup>th</sup> percentile Reviewer



## Queensland Tourism Digital Workforce Development and Training Plan

MAY 2019



RYAN YUNG

PhD candidate, Griffith University



# Digital Transformation and COVID-19.

- Digital adoption accelerated by 6 years.
- International Tourism year-on-year fall of 1 Billion Arrivals (\$ 1 Trillion) in 2020.
- VR experiences launched by tourism boards of Germany, Ireland, Maldives, Japan etc.
- First AIR – VR Flights – 50% increase in bookings (Debusmann Jr, 2020).
- Acceptance of virtual substitutes.

(McKinsey & Company, 2020; Twilio, 2020; UNWTO, 2020)

TRAVEL

## Japan's virtual airline sees soaring demand amid real travel disruption

21 Aug 2020 07:47 AM

⌚ 2 minutes to read



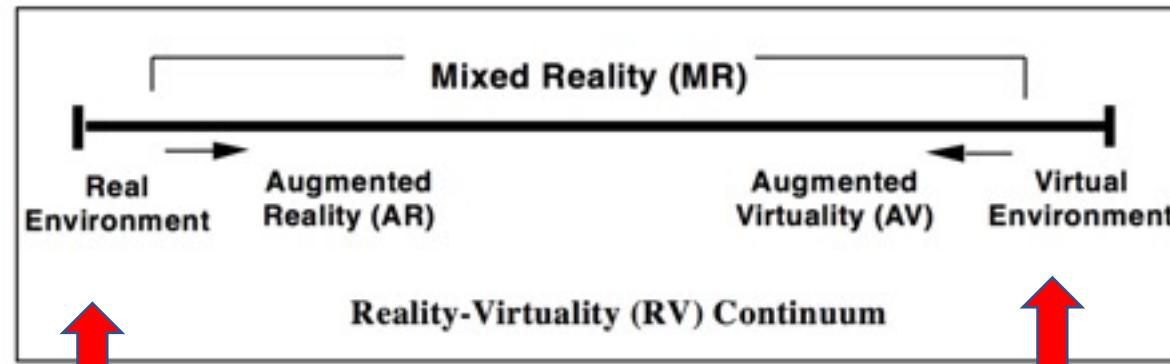
# Reduced Mobilities.

- In the UK (O'connor et al., 2020):
  - Suicidal thoughts 1 in 7 adults.
  - Severe Anxiety and Depression up 23.7%.
  - Loneliness – concerning increase.
- China (Yang & Ma, 2020):
  - 74% drop in emotional well-being.
- *'In a hypermobile world where we value and champion extensive mobility, how will it feel to be one of the many older people who spend over 90% of their time in the home environment? How do we help them feel or experience mobility when literal mobility may be restricted or impossible?' (Musselwhite, 2017, p. 203)*

# Tourism Experiences for Well-Being

- Value of tourism experiences to mental health.
- Subjective Well-Being (Diener, 2009; Filep, 2014; Kim et al., 2020; Li et al., 2021)
  - Positive **emotional** response
  - Life **satisfaction**
  - Absence of anxiety & depression
  - **Happiness**
  - Progress toward valued **goals**.
- Memorable tourism contributes to individual's **happiness** (Vada et al., 2019;2020).
- Chinese tourists achieve life **goals** of searching for ancestral roots through **visiting** authentic rural destinations (Meng et al., 2019).
- How can we harness these experiences and experiential tourism benefits?
- What facets of the tourism experience can be replicated?

# VR? AR? XR? What's the difference?



Simplified representation of a RV Continuum  
(Milgram et al., 1994, p. 283)

Augmented Reality

Virtual Reality

# What is Virtual Reality?

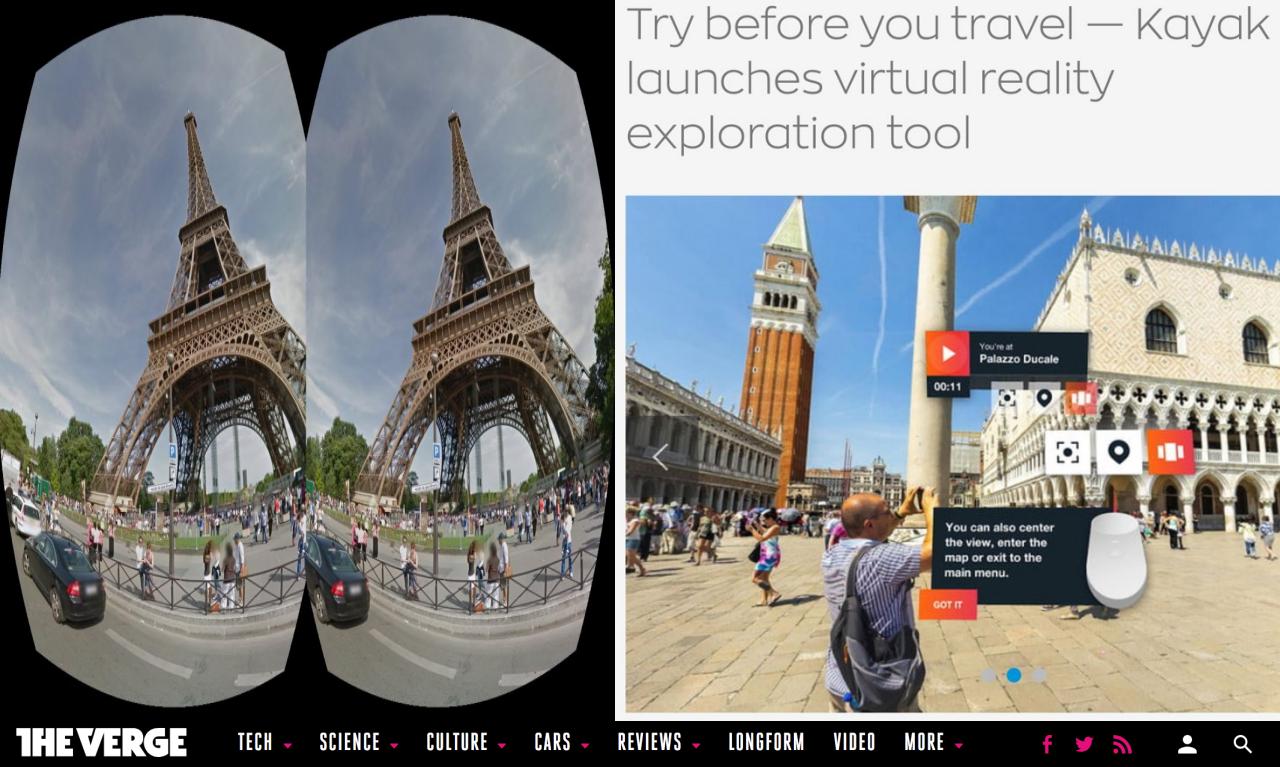
- Visualisation
  - User able to look around, with HMD.
- Immersion
  - Suspension of disbelief.
- Interactivity
  - Degree of control, using controllers like joysticks.



# VR in Tourism.

- Destination Marketing
  - VR's greatest strength
    - ability to **visualise spatial environments**.
    - crucial for **intangible products**.
- More effective than traditional media  
(Yung et al., 2021; Bogicevic et al., 2019).
  - Emotional response.
  - Intention to visit.
- i.e. AirBnb, Kayak, Marriot Group
- But what if **VR is the destination?**

(Guttentag, 2010; Huang et al., 2016; Yung & Khoo-Lattimore, 2019)



THE VERGE TECH VIRTUAL REALITY AUGMENTED REALITY

Airbnb wants to offer virtual reality previews of rental spots



ryan.yung@griffithuni.edu.au

# Social Presence

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- Subjective sense of being together.
- How successful at emulating F2F communication.
- Virtual Characters, Depth Cues, Haptics, Social Cues, Virtual Personality etc.



# All Together

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- VR Gaming/Training:
  - Improve well-being among adults with disabilities (Singh et al., 2017)
  - Children hospitalized with cancer (Li et al., 2011)
  - Fun to physiotherapy of stroke patients (Ahmad et al., 2019)
  - SWB in clinical settings (Montana et al., 2020)
- No significant difference emotionally in nature-based landscape – VR vs Real-World (Chirico & Gaggioli, 2019)
- Potentially VR more powerful than on-site experience?



Is this Ideal?



# EXPERIMENTS

- Within-Subjects Experiment Design + Interviews
- 3 Conditions – Digital Frontier
- Condition A: Virtual Reality (HTC Vive)
- Condition B: Video (27-inch screen)
- Condition C: Photographs (27-inch screen)
- Randomised order.
- 72 Participants. 43F-29M. 18-35 y/o  
(Mean=26/Median=25).

(Meehan et al., 2005; Mandryk, Inkpen, & Calvert, 2006; Bastiaansen et al., 2018)





# Themes

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- Visual Representation and Social Cues.
- Context-dependent SWB.
- VR tourism for aims and goals.

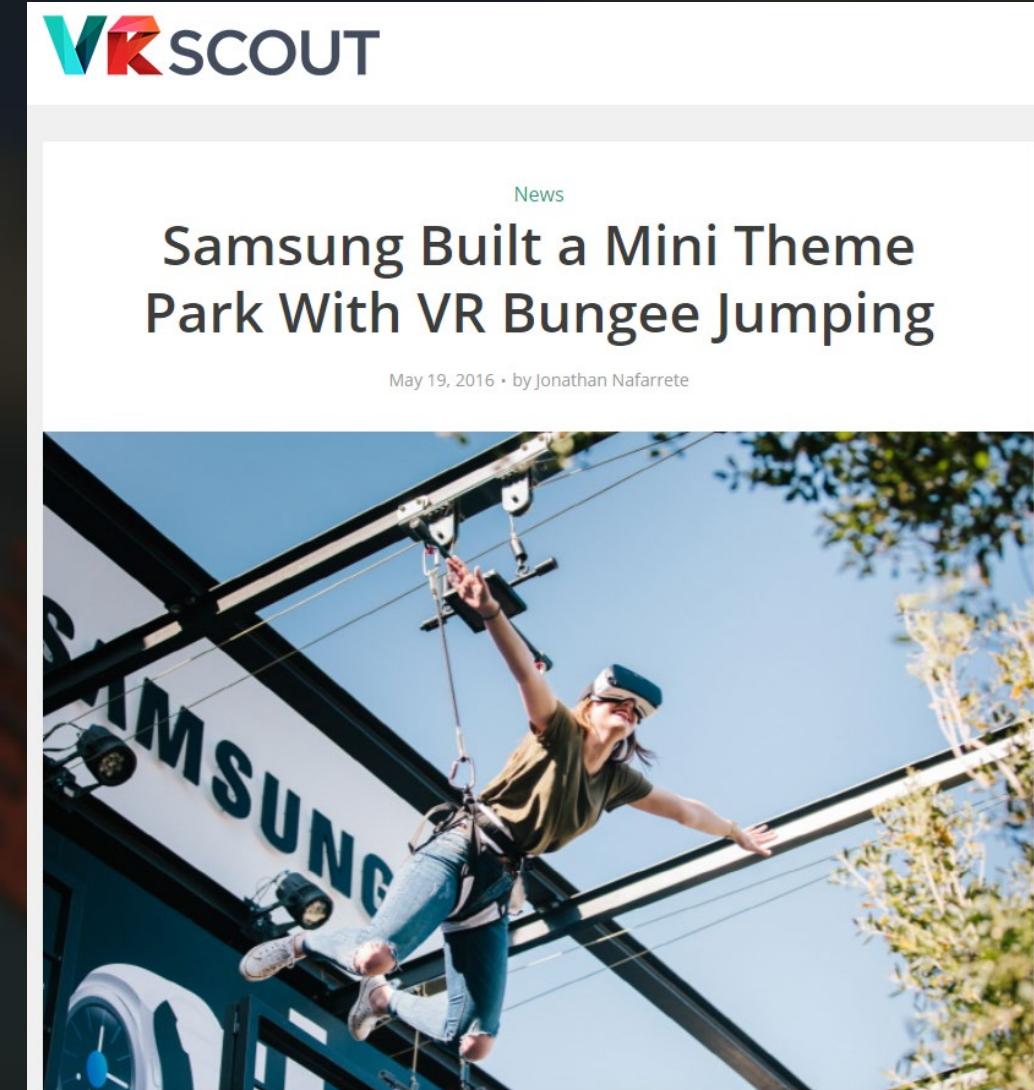
# Visual Rep / Context.

- I feel like **lonely** because the cruise is so big, but I just alone. So just putting more persons there. It could be more pleasurable, more pleasant to me. (Eva-31/f/n)
- For me, traveling is also about **socializing**, and meeting people and being immersed. VR... a very **sterile** environment... some interaction... some humans. (Philip-33/m/n)
- With the VR, I actually felt really **calm**. And right now I wish I was back on that sundeck just like watching the **sunset**. (Liv-25/f/n)
- Like, motion of the **waves**... felt natural. The **sun**, the **sky**. I think that was my favourite part about it, being in the **sea**... and I think they recreated very well, actually. (Jaden-23/m/n)



# VR tourism for SWB aims and goals.

- With the VR experience, I want to go back and check out that other thing that I kind of saw if you had mapped more of the boat. When more maps came out, you'd definitely **go back to have another look**. It's a little bit more **sustainable** in the way that you go and **revisit** it. (Zooey-24/f/y)
- I'm a little bit afraid of fish and heights. The chances of me **bungee jumping** or diving to see the Great Barrier is very infinitesimally low. **I probably won't do it in my lifetime**. With VR, I can now go into that water environment and see it. **I thought I would never be able to do, this could be a replacement**. (Cara-34/f/n)
- Replacement Experiences:
  - Overcoming barriers (social, psychological, physical)



# Experiential Futures with VR.

- Developers – focus on nature or more R&D in virtual characters (even just silhouettes).
  - Or effective storytelling.
- Move from VR as **complement** to VR as replacement.
  - Second-chance tourism and 3D scanning.
  - Fantasy locations?
- Research in VR tourism.
  - Other senses -> neural?
  - Multi-user?
- What about policy for virtual travel?
- Redefining tourism / travel / hospitality?
- Tourism-based industries?
- Social Presence in Business travel & events?

**HTC holds virtual media event, sends coronavirus balloons into crowd for selfies**

Jeremy Horwitz @horwitz March 19, 2020 9:21 AM





# VR is the future. The future is now.

