

Measuring emotions from the body and brain

Dr. Ondrej Mitas

ondrejmitas@gmail.com

Senior lecturer, Tourism, Breda

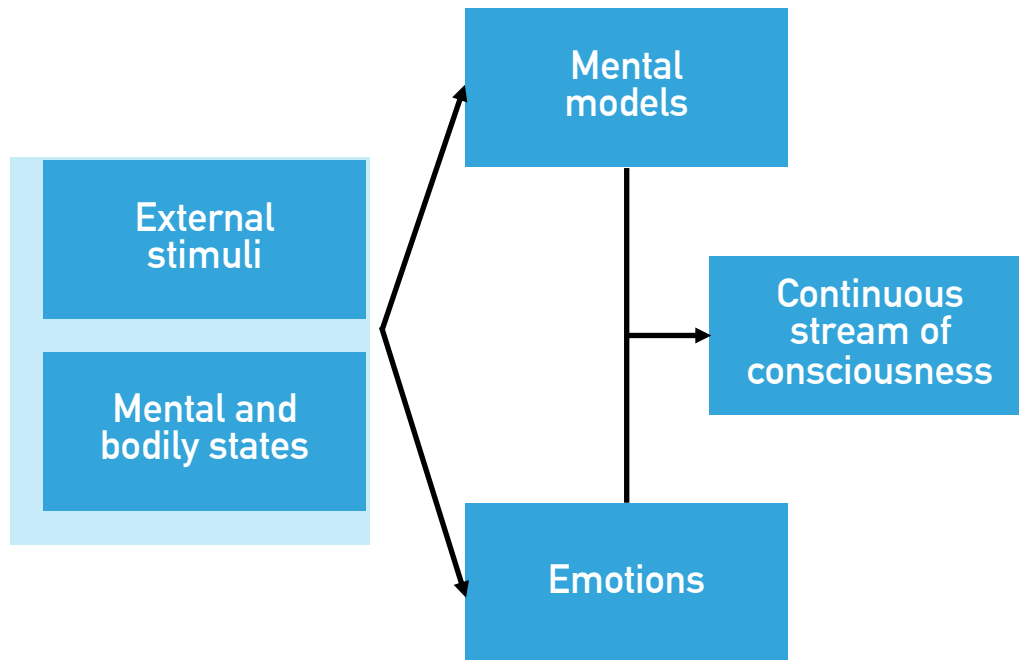


Experience is the essence in leisure, tourism and hospitality

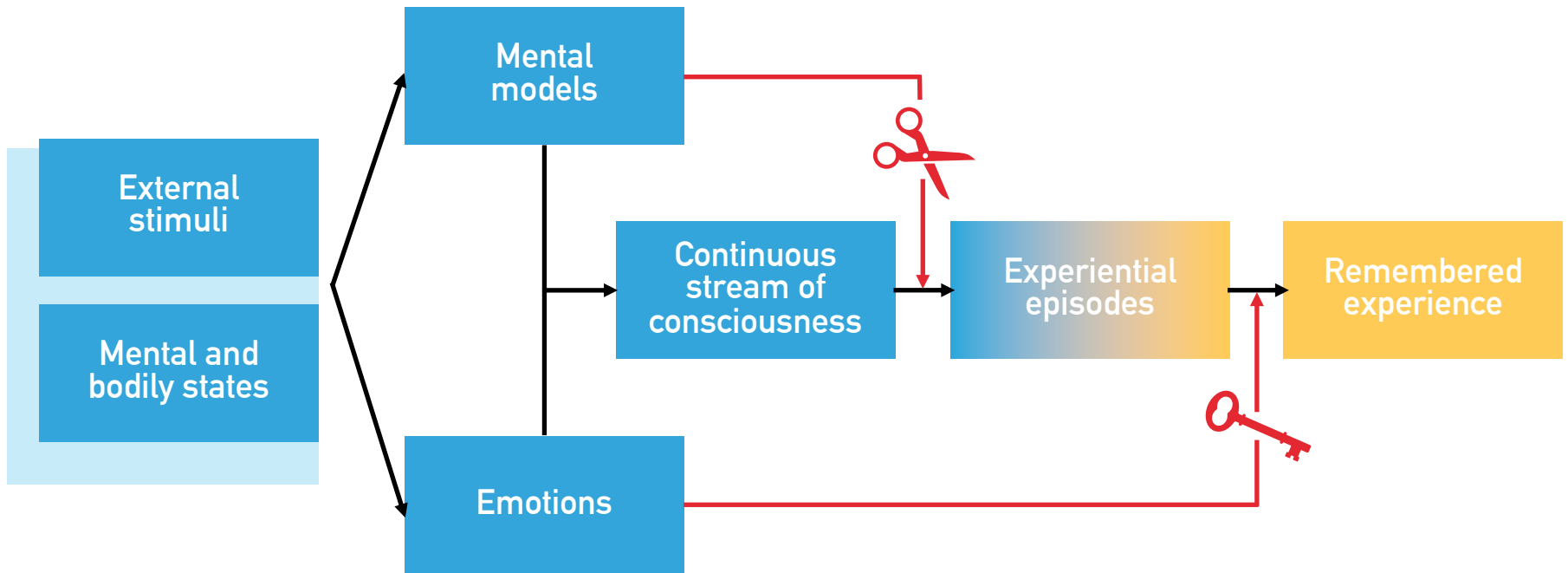


But experiences are usually designed based on “gut feeling”
And evaluated based on business KPI’s, with little
understanding of why they work or fail

What defines an experience as meaningful or memorable?



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Emotional engagement determines whether episodes will be remembered as meaningful and memorable experiences

Emotion measurement at Breda University's Experience Lab

A range of research facilities to record emotions continuously using physiological measures



Emotion measurement at Breda University's Experience Lab



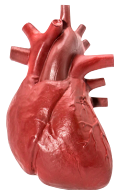
Directly from the brain through EEG



From facial muscles through an EMG study



From the respiratory (i.e., breathing) system



From the heart through an ECG, EPV



From the skin through skin conductance

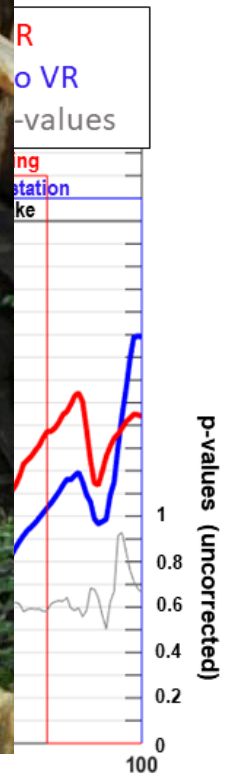
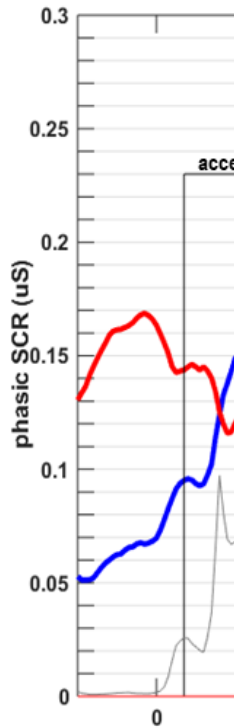
One example: skin electrical conductance





- Brain generates emotion
- Nervous system triggers sweat glands on hands and feet
- Hands and feet become slightly wetter
- Water conducts electricity
- More current gets passed between two electrodes
- > skin conductance continuously tracks emotional engagement over time

Tracking emotions in time: a VR rollercoaster ride



Tracking emotions in space

Van Gogh guided village tour, Nuenen

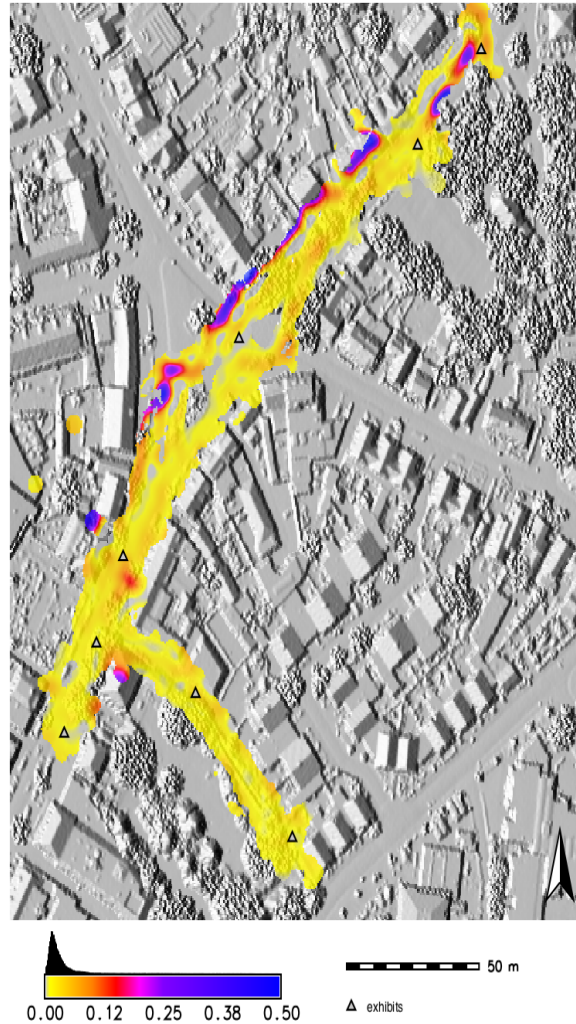
Density map

Number of data points collected via GPS



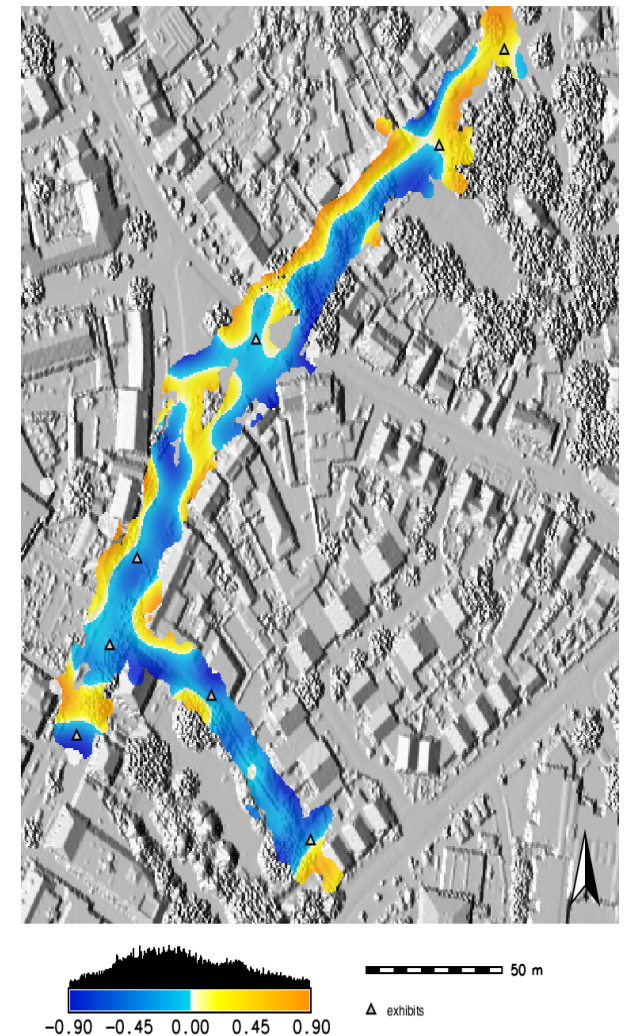
Emotion map

GPS x skin conductance



Emotion effectiveness map

GPS x skin conductance x NPS

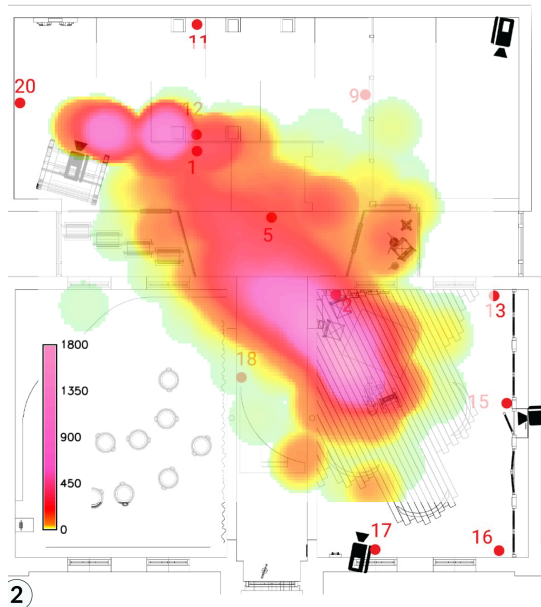


Tracking emotions in space

A museum visit (Vincentre, Nuenen, 1st floor)

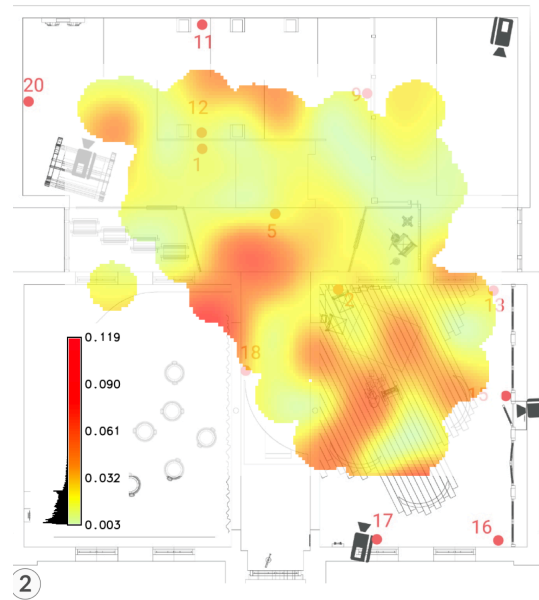
Density map

Number of points recorded based on Bluetooth beacons



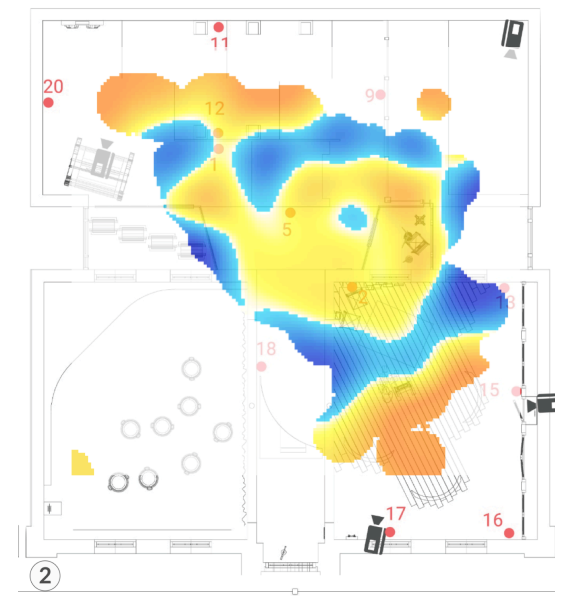
Emotion map

Location x skin conductance



Emotion effectiveness map

Location x skin conductance x NPS



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