

# Smart destination management driven by emotions and small data

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# The roadmap of the presentation



Introduction



Emotion at the heart of the  
tourist experience



The use of an emotion-based  
application by a destination:  
some functional elements



Conclusion

Paper is available upon request



# Introduction

We explore the boundary between  
experience and emotion.

We ask how to fix and communicate  
emotion.

theoretical and functional foundations not operational

The inhabitants co-create and co-  
value the destination through a digital  
dialogue with visitors (inclusion).

Emotion is at the heart of the tourism  
experience and should be an element  
of destination management.

# I. Emotion at the heart of the tourist experience : some theoretical elements



- Since Pine and Gilmore (1999), the academic literature considers the experience as a (serious) topic.
- Short and not exhaustive survey :
  - Aho (2001) : experience is a process
  - Tussyadiah (2014) : the design of experience,
  - Vergopoulos (2016) : experience is a concept,
  - Knobloch et al. (2017) : experience is an element of experiential marketing,
  - Experience is composite.
    - Skavronskaya & al. (2017) : awareness and mindfulness, attention, memory, feelings, emotions, and a cognitive pattern with experience.
    - Bastiaansen & al. (2019) : attention, involvement, engagement, immersion, cognitive absorption, and emotion.





# What is emotion?

- Emotion comes from the Latin *motio* 'to move' and 'to emote.' It has long been associated with a 'moral disorder,' making it an object of study in cognitive science and neuropsychology (Moyle et al., 2019).
- In a figurative sense, emotion is felt individually or collectively. It depends on the degree of sensitivity and receptivity of individuals (subjective).
- Emotion is associated in the (tourism) literature with various tourist practices : festivals, shopping, leisure parks, heritage, adventure (Hosany & al., 2020). Emotion has aesthetic, artistic, literary, musical, spiritual, or cultural origin.
- Emotions shape the tourism experiences (Kim & Fesenmeier, 2015; Volo, 2016). The direction and strength of emotional responses to stimuli can differ considerably from one tourist to another (and country).

*"Emotion is a complex reaction of the individual to a state of the environment or an event."* Gauducheu (2008: 390)

*"Emotions are "fleeting phenomena rather than stable attributes of an individual that come and go with the ebb and flow of daily life"*  
Kuppens, 2015: 297.



# Capturing and communicating emotion

## Methodology : measuring

- Psychology and neuromarketing : neurotransmitters at the source of emotion via visual stimuli activated during tests, electroencephalograms, and questionnaires (Bastianen & al. 2016, Moyle & al. 2019, Klonsky & al. 2019).
- The link between emotion and destination
  - is based on images or rating scales, regardless of whether the individuals tested know the destination.
  - is independent of the on-site presence or the localized socio-cultural interactions.
  - depends on pre-or post-visit emotions, which poses a problem of memory distortion and emotion reconstruction in the latter case.
- It raises the question of the link between emotion and knowledge.
  - Emotion cannot be considered an independent variable with no link to the place visited.
  - Capturing emotion is not simply a matter of measuring it on a scale of values.



# Capturing and communicating emotion

## Methodology : observing

- Attempt of Hosany & Gilbert (2010) to developed the **Destination Emotion Scale** through two empirical studies.
  - First study : face-to-face interviews from 200 British people + second study : postal survey in a town in the southeast of England (UK) with 520 respondent
  - Respondents must rate the intensity of their emotional experience of the destination they had visited.
  - The 3 dimensions of the DES are:
    - Joy (cheerfulness, pleasure, joy, enthusiasm, and delight);
    - Love (tenderness, love, attention, affection, and warmth),
    - Positive surprise (astonishment, surprise, fascination, inspiration, and surprise).
  - Limited to one culture (British nationals).
- Scannell & Gifford (2010) and the place attachment : emotional connection between an individual and a particular spatial setting (Williams & al. 1992; Gustafson 2001; Williams & Vaske 2003). People's relationships with place can represent a range of positive emotions from love to contentment (Manzo 2005; Hidalgo & Hernandez, 2001).
- The Internet and social networks enable interactions around emotions.

Place attachment "*involves an interplay of affect and emotions, knowledge and beliefs, and behaviors and actions in reference to a place*"

Altman & Low (1992: 5)



# Capturing and communicating emotion

## Observing emotion with emoticons

- Emotion manifests the mental state of the visitor. Today they are expressed on social networks (Facebook, Instagram, Twitter, ...)
- We need to capture the emotions :
  1. Search in the tone of posts, photos, and messages, the nature of the emotions of what is perceived and experienced by the visitor by analyzing verbal and non-verbal corpus.
  2. **Focus on emoticons** to express emotions, a state of mind, or a feeling in the digital age.
- An emoticon is a conventional representation of emotion through a typeface or image that substitutes for verbal expression. As Halté (2016: 442) points out, *"The subjective elements that emoticons can indicate can be, for example, an emotion, an attitude, or even a practical instruction."*
- Initially confined to ASCII expressing smileys, they are now drawn and available in abundance and no longer necessarily concern facial expressions but also objects, monuments, animals, etc., to the point of being consigned to a universal library. The primary emotions expressed are joy, humor, sarcasm, sadness, anger, laughter, amazement, sadness, etc. These emoticons can be positive, negative, relational.

ASCII: American Standardized Code for Information Interchange. For exemple :) refers to the smiley 😊.

The library is managed by a consortium of major Internet players (Amazon, Apple, Facebook, Google, Huawei, Microsoft, Netflix, Oracle, SAP, etc.) who decide after a long study process if the proposed emoticon can be included in the catalog (<https://home.unicode.org>)



# Emotion as a destination enhancer: a new frontier ?

- Proposal 1: Emotion is the basis of a new tourism valorization carried by residents and visitors.
- Proposal 2 : The (small) data generated by the application should be analyzed (better understanding of visitors' needs and behavior)

II.

## The use of an emotion-based application by a destination: some functional elements









- The objective of the application :
  - is not to measure emotion but to capture the sense of emotion expressed by visitors ;
  - is to enable the destination to work on its attractiveness on a new basis.



# Capturing the emotion of visitors via emoticons

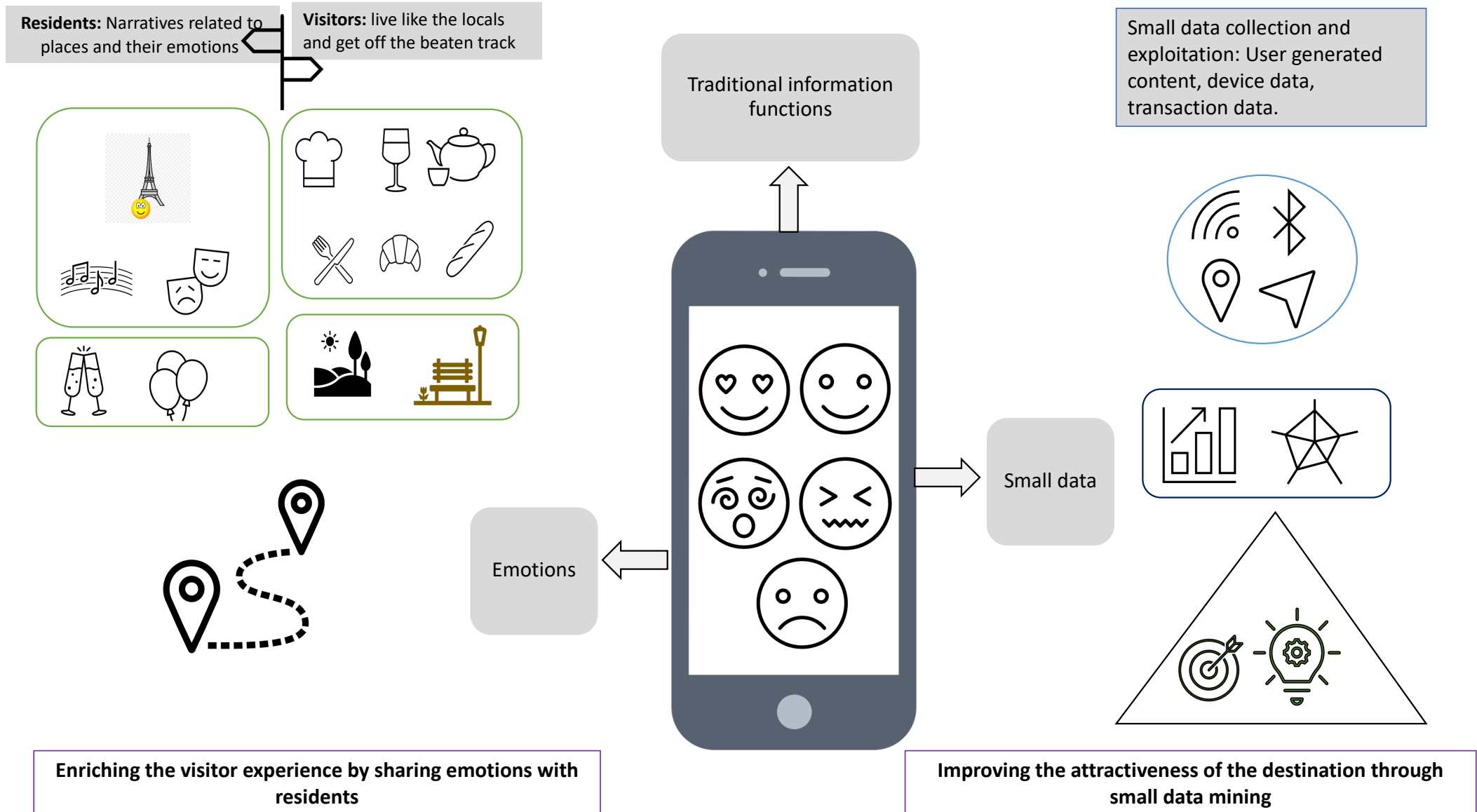
6 fundamental facial emotions identified by Eckmann (2002),  
according to <https://www.unicode.org/charts/PDF/U1F600.pdf>

Emotions	Emoticons	Natures	Manifestations	Mental disposition
Joy		Satisfaction, Success, Passion	Happiness, Good mood, Contentment, Interest	positive emotion
Anger		Frustration, Annoyance	Closure, Nervousness	negative emotion
Fear		Worry, Concern	Apprehension, Mistrust, Fear	negative emotion
Sadness		Loss, Disappointment	Unsatisfaction, Affliction	negative emotion
Surprise		Unexpected, Revelation, Astonishment	Enthusiasm, Wonder, Inspiration	positive emotion
Disgust		Aversion, Reject	Contempt, Irritation	negative emotion

- For a territory that receives visitors from all over the world :
  - risk of oversimplification
  - but will be understood by all, regardless of the cultural base.
- it is possible to capture moments of satisfaction, contentment (positive emotion), and moments of disappointment, sadness, frustration that refers to more negative emotions.
- The use of location data will make it possible to associate a place/point of interest with the emotions expressed.



# The place of emotions in the tourism experience managed by destinations





# Conclusion

"Tourism becomes smarter by design when the revival and revitalization of all communities-as-destinations takes center stage and is taken seriously."

Haywood 2020, p.607

- The destination and its inhabitants need to manage tourism rather than be impacted by it.
- This is what Haywood (2020) proposes, when he suggests that residents make their destination "special" and re-imagine tomorrow's tourism on a smarter basis.
- The Covid-19 context allows for the possibility of integrating other functionalities into the destination app such as site visitation. Visitors to a site could themselves indicate how they feel about the state of a place (crowded, safe, ....)
- These are all ways for destinations to stand out and differentiate themselves.