# Abstract (250 words):

**A conceptual framework for studying reactions to events in location-based social media**

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Events are one of the core concept of spatial information, as identified by Kuhn (2012), and location based social media provide a prominent source of information reflecting reactions to events. An important characteristic of an event is agency, which refers to someone’s ability to influence the event. Reactions can take the form of observations, such as the occurrence of an event, opinions, emotions, actions etc. Important characteristics of individual reactions are the referent event, who reacted, when, where and how (i.e. the character of the reaction), and relations to other individual reactions. In particular, these characteristics of reactions may depend on the agency. Collective reactions are composed of multiple individual reactions sharing a common referent event. They can be characterized according to the following dimensions: spatial, temporal, social, semantic, interlinkage. Within each dimension there may be variations among individual reactions. Our conceptual framework allows both to compare reactions to events of the same type and to fundamentally different types. For example, we can compare reactions to the event of cherry blossoming in different countries; compare reactions to events which are well bounded in space and time (e.g. spring blooming and snow fall) and to events with more complex signatures in space and time (e.g. Brexit or presidential elections). The purpose of this framework is to guide the development of methods for analyzing and understanding people’s reaction to events.

Kuhn, 2012: Core concepts of spatial information for transdisciplinary research. IJGIS, 26 (12), 2267-2276.

These dimensions are based on characteristics.. This equally encompasses the information spread that occurs as part of the discourse…

when the event is reacted upon… sophisticated process/interaction/feedback loop (e.g. changing options during process), biasing effects of networks

* People increasingly express feelings on social media
* this paper focusses on the impact of events in terms of people’s reactions that can be found in social media
* important characteristic

Express their opinions and thoughts

# Outline for paper:

* Introduce Objectives (audience)
* Planners & journalists, decision makers, sociologists

## Definition of Event

* Cognitively labelled
* Temporally referenced
* W. Kuhn; Galton and Mizuchi, 2009 ‘s definition
* Introduce examples (continuum: classes to individual instances):
  + Cherry Blossoms: Event example could be individual, or several Cherry Blossoms or seasons (Flickr)
  + Brexit: Event example could be “Referendum” (Twitter)
  + Snow in UK: Event example could be several snow events (Flickr & Twitter)

## Characteristics of Events

* Event can be characterized in terms of 4 dimensions: spatial, social, thematic, temporal
* subcategories for attributes in each of these dimensions
* people’s perceived (agency) ability to change the event
* Degree of agency (Wirkung) as a continuum
* ‘Agency’ is the degree to which an event is initiated and influenced by people (/actors)
* social characterization of event: situational awareness of observers/witnesses/participants
  + characteristics of events (which may be important for analysis)
    - **When**
      * Start
      * Reoccurrence/ periodicity
      * End
    - **What**
    - Where
    - Who (involved?)
    - Attributes
    - Agency

## Reactions of people to events

## 3.1 Individual Reactions

* reaction is a specific type of event
* definition of individual reactions (single reaction, single person)
* characteristics:
  + characteristics of reaction to events (point in space and time)
    - Event reference
    - Who
    - When
    - Where
    - How (Sentiment)

## 3.2 Collective Reactions

* + characteristics collective reactions (many people), composed of many elementary reactions
* Characteristics of reaction to events based on manifestation/differences in each of the 4 dimensions
* in contrast to events, essential characteristic of reactions: not homogeneous – subjectivity and heterogeneity (across all dimensions: space, time, groups, thematic, character of reaction)
* Information Spread: sophisticated process/interaction/feedback loop (e.g. changing options during process), biasing effects of networks
* Data model: dataset for events (components)
  + 1: Relation of events and reactions to events (4 dimensions)
* notion of **location**: relatedness
* Examples of related Locations:
  + Location of the event
  + Location of reaction to event
  + Social-Demographic:
    - Locations of user:
      * Taken from Profile, Age, Spatial Data Patterns

## Discussion

* Explain how framework is going to be used in event analysis in regard to audience: planners

## Conclusions