



Developing a KG of Personal Tourist Events

KDI 2020 Project Proposal

- 1 Personal Tourist Events
- 2 Competency Queries
- 3 Standards
- 4 Knowledge Resources
- 5 Data Resources
- 6 Outcomes

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Personal Tourist Events

- Smartphones are powerful data-centric gadgetry facilitators to understand their user's personal life patterns. In case of a tourist, for example, it can help to pin-point where a tourist goes and can possibly go, possible amusement activities, and to exploit this knowledge to support the tourist's itinerary.
- Personal tourist events are focused along four macro cardinals:
 Spatial (location patterns); Temporal (time patterns); Personal (behavioral patterns), and Social (interaction patterns).
- The aim of the project is to create a modularized Knowledge Graph (KG) for integrating data on personal tourist events, using the iTelos Methodology.

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Competency Queries

To provide a glimpse, competency queries which inform the inception of the development of the KG on personal tourist events can be like:

- Which are the top five mountain huts visited by European tourists in Trentino ranked by food and ambience?
- Which are the most busiest time-slots for a particular nature park as observed over a specific period of time (a week/a month etc.)?

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Standards

To follow the standards adopted in the datasets collected:

- **INSPIRE**
- **■** GTFS
- iCal
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Knowledge Resources

The reference knowledge resources for the task are:

- The Geo-eTypes Ontological Model
- The GTFS Ontology
- The W3C Time Ontology
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Also take a look at:- Linked Open Vocabularies (LOV): Subset on Events, schema.org and Semantic Sensor Network Ontology.

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Data Resources

- European Data Portal
- Data gathered from smartphones or other sensor-points (IoT)
- Also by web scraping from relevant websites (if needed)

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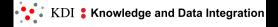
It is to be noted that features of the dataset(s) exhibiting personal identification markers need to be compulsorily anonymized.

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Outcomes

- Extended set of standard and terminologies supported with respect to personal tourist events, and event patterns in general
- A generic KG and a set of localised KGs defined to support and integrate diverse data on personal tourist events
- Datasets on personal tourist events, cleaned and well formatted, aligned with the knowledge used to integrate them

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