



# Developing a KG of Personal Educational Events

**KDI 2020 Project Proposal** 

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

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#### **Personal Educational Events**

- Smartphones are powerful data-centric gadgetry facilitators to understand their user's personal life patterns. In case of a student, for example, it can help to pin-point where a student goes, what are her/his mundane activities, and to exploit this knowledge to support her/him in everyday life.
- Personal educational 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 educational 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 educational events can be like:

- Which are the most frequented campus spots by the master's students of DISI, UniTn?
- Which are the most popular daily time-slots for bachelor degree lectures at DISI, UniTn, 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
- .....

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)
- .....

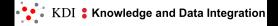
It is to be noted that features of the dataset(s) exhibiting personal identification markers need to be compulsorily anonymized.

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#### **Outcomes**

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

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