

NARRATION INTRODUCTIONS

Ontolog Forum

Track: Narration Session 2

Two speakers today have agreed to share two different approaches to narration.

Speaker Background Ilaria Tiddi (@ilatiddy ([curr vitae](#)) is on the [Faculty of Behavioural and Movement Sciences, Social & Organizational Psychology at Vrije University \(pronunciation\)](#) Her research interests include interfaces for robotics, scalability of automated object recognition processes, and specifically linked data applications as diverse as open citations in academia to mobile robots. Her PhD area of emphasis was in web data mining, but she has also focused on NLP.

She's here today to speak to us about generating explanations through large knowledge graphs

Here is a snip from a 2019 AAAI tutorial on knowledge graphs and XAI
<https://xaitutorial2019.github.io/>

Explainable AI with Knowledge Graphs and ML

In this section of the tutorial we address the explanatory power of graph-based knowledge bases from two separate points of views:

- Explainable AI with semantic web and logics
- We show how the schema-rich, graph-based knowledge representation paradigm underpinning the semantic web enables effective explanations. This section also focuses on logics and reasoning methods for representing and inferring effective explanations from large, heterogeneous knowledge bases.
- Machine learning on knowledge graphs
- In this section, we focus on knowledge graph embedding models, neural architectures that encode concepts from a knowledge graph into continuous, low-dimensional vectors. Such models have proven to be effective for a number of machine learning tasks, notably knowledge base completion. We explain the rationale and the architectures of this models and we survey them from the point of view of how interpretable they are, and how they can enhance the explainability of third-party models

Speaker Background [Dennis Wuthrich](#) is the CEO of Farallon Geographics, based in San Francisco. He has a couple decades of work with a portfolio of over 200 GIS system integrations. (Think geospatial ontologies.) He designs the technology infrastructure, governance, workflow processes and geospatial data models for projects in commercial, state and local government, public safety, homeland security, environmental, natural resources, and international heritage management. Dennis is a registered geologist and hydrogeologist

Dennis is here to speak with us about Arches, a project and related software based on “The [CIDOC Conceptual Reference Model](#) (CRM) is an ontology for cultural heritage that has been developed continuously since 1996 by the CRM Special Interest Group of the [International Committee for Documentation](#)(CIDOC) of the [International Council of Museums](#) (ICOM). The model represents one of the few ontologies that is part of an ISO standard, [ISO 21127:2014](#) (“Information and Documentation: A Reference Ontology for the Interchange of Cultural Heritage Information”).

As we all know as museum-goers, having a common set of ways to tell stories as small as the provenance of an arrowhead, or the history of an entire genetic group can unify understanding and teaching about cultural artifacts. It can even affect art indirectly by standardizing terminology which can be turned into analogies in poetry.

<https://www.archesproject.org/standards/>