Knowledge Management Translator: skills and human resources development

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Background

There are two existing roles we are expanding:

- Materials Modelling Translator - to close the “knowledge gap” between industrial stakeholders and materials modellers, thus promoting mutual understanding.

- Analytics Translator – to close the “knowledge gap” between industrial stakeholders and data experts.
The Six Steps of KM Translation

The overall translation effort is broken down into a sequence of six steps, some more business and some more technology oriented, that are performed first successively and then in cyclic iterations.
Step 0 – Readiness assessment by the Knowledge Management (KM) Translator with respect to human resource, tools, ontologies, and data maturity
Step 1: Identify innovation case and elaborate on the benefits of adopting semantic technologies

- Portfolio of past Innovation challenges
- Understand the businesses’ global perspective

Innovation Challenge

KM Translator

Innovation Case

Can analyse benefits

Understand where to deploy semantic tools
Step 2: Conceptualise the Innovation or Data-to-Knowledge Governance Case

- Agree on an innovation case
- Offer and document a Workflow, capture the Process from Data → Knowledge
- Work with Domain Experts
- Capture and elucidate all relevant case entities of the innovation case
Step 3: Determining relevant existing vocabularies, taxonomies, ontologies, and standards as well as required data and sources.
Step 4: Propose potential knowledge engineering solutions.
Step 5: Implementation work (for knowledge engineer, etc.)
Step 6: Client adoption including training
Features and Superpowers

A strong advocate and communicator

A good ‘auditor’ and benefits advisor

Technical skills in ontologies and knowledge engineering

Relevant domain expertise

Unbiased Project management
Qualifications

- PhD in a Knowledge Engineering discipline or a PhD in Physical Sciences and relevant post-doctoral or industry experience or MSc with several years of industry experience in Knowledge Management.

- PhD in the field of interest (other than Knowledge Management, e.g., materials science, metallurgy, biochemistry, etc) with 5+ years of industry experience in multidisciplinary R&D projects with an adequate second master or similar degree in knowledge management.
What they will do ...

- Working closely with the **business team** to map out innovation cases.
- Working with **ontology curators, ontology engineers, devops experts and data engineers** to coordinate solutions.
- Coordinating with **domain experts** for terminological curation
- Coordinating with **engineers** for the logical modelling
Interfacing between engineering (data, ontology engineering) and the business team.

Perform readiness assessment with respect to human resource, tools, ontologies, and data maturity.

Identify innovation case and elaborate on the benefits of adopting semantic technologies.

Conceptualise the Innovation or Data-to-Knowledge Governance Case.

Determining relevant existing vocabularies, taxonomies, ontologies, and standards as well as required data and sources.

Propose potential knowledge engineering solutions.

Delegate work to experts.

Deliver internal adoption of solution including training.
The Future ...

- 2nd WhitePaper with Solutions
- Presence at EMMC2023 and 2nd OntoCommons workshop (synergise)
- Database with Trainings Material and KM Translators
- Initiate Marie Sklodowska Curie Action Nov 2023 (train new generation of KMTs)
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