

# Discovering Analytical Concepts from User Profiles

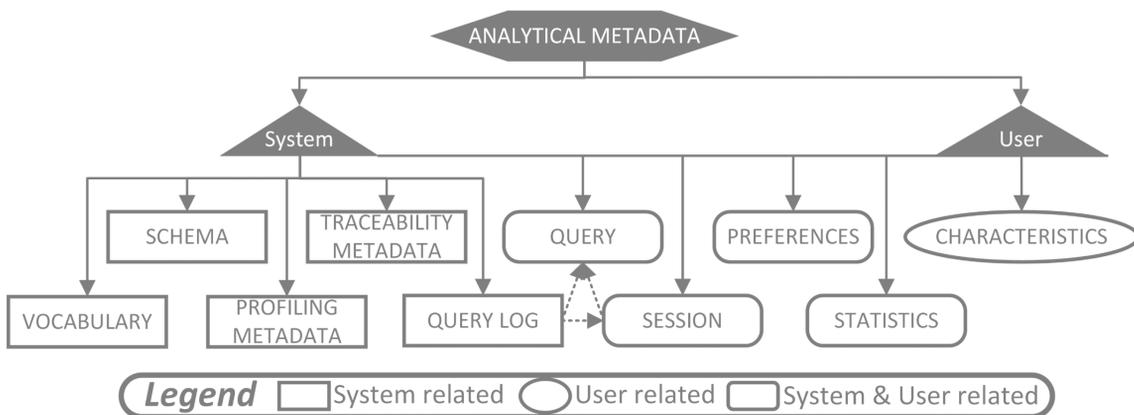
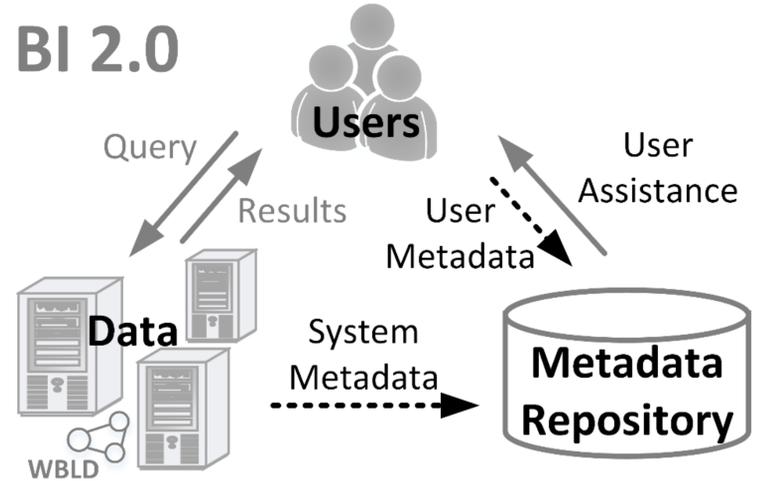
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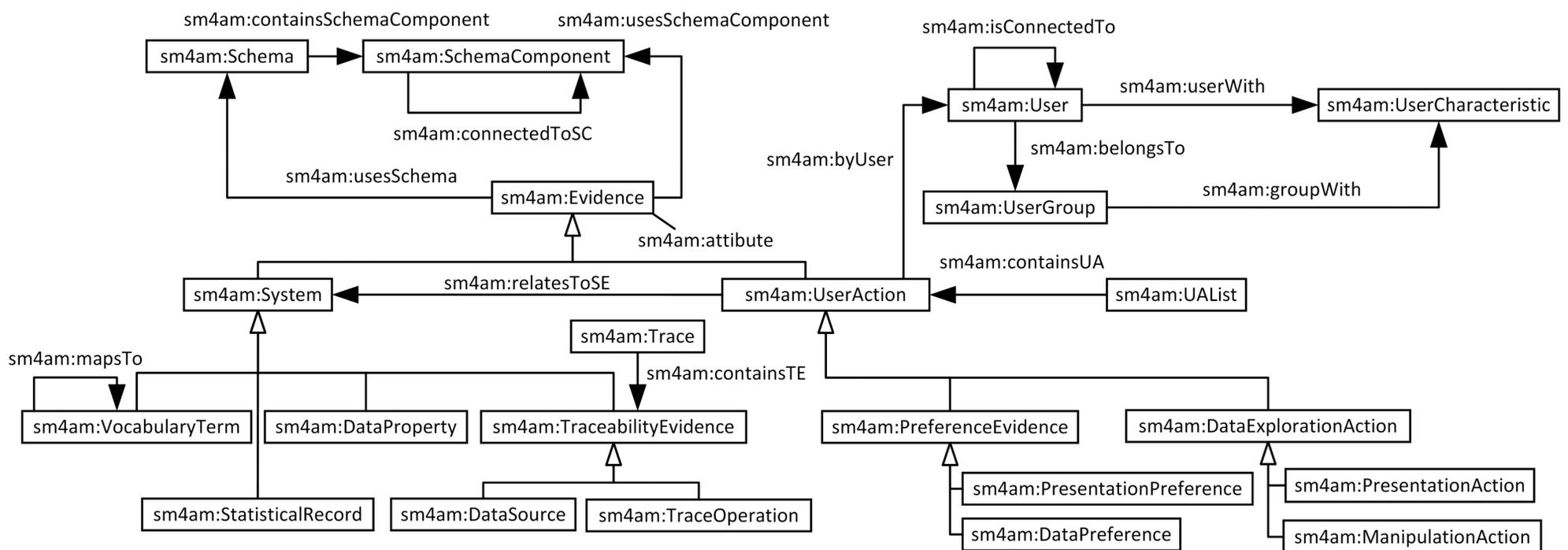
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**The Vision:** Enabling the user assistance possibilities for next generation BI systems by means of metadata. The metadata need to be considered as a first-class citizen and managed in a dedicated BI subsystem for user assistance purposes.



**Analytical Metadata Framework:** Based on the findings from a survey, we propose analytical metadata framework to support the user assistance activities and their automation in the context of next generation BI systems.

**SM4AM:** A Semantic Metamodel for Analytical Metadata to support the exploitation, reuse, and integration.



**Current Focus:** The (semi-)automatic schema enrichment of existing QB data sets with the additional QB4OLAP semantics. Steps:

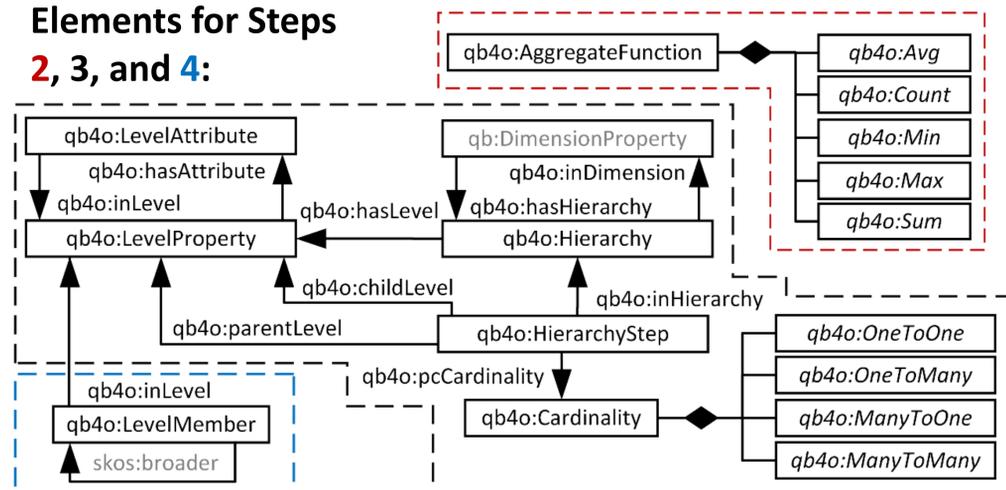
1. Redefinition of the cube schema.
2. Specifying the aggregation functions.
3. Definition of the dimension hierarchies.
4. Annotation of the cube instances.

**Further reading:**

1. J. Varga, O. Romero, T. B. Pedersen, C. Thomsen: Towards Next Generation BI Systems: The Analytical Metadata Challenge. DaWaK 2014.
2. J. Varga, O. Romero, T. B. Pedersen, C. Thomsen: SM4AM: A Semantic Metamodel for Analytical Metadata. DOLAP 2014.

**Elements for Steps**

**2, 3, and 4:**



**Next Steps:** The use of AM and SM4AM for the query recommendation area as a proof of concept for our claims.