

## **Semantic Search Evaluations: Gaps, Challenges and Best Practices**

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**Résumé :** Recent work on searching the Semantic Web has yielded a wide range of approaches with respect to the underlying search mechanisms; result management and presentation; and indeed the style of input. Each approach impacts upon the quality of the information retrieved and the user's experience of the search process. Despite the wealth of experience accumulated from a variety of Information Retrieval (IR) evaluations, evaluations for searching the Semantic Web have largely been developed in isolation with no coherent overall design. This has led to slow progress and low interest when compared to other established evaluation series, such as TREC for IR or OAEI for Ontology Matching. Thus, part of this talk will discuss the missing aspects in current semantic search evaluations and the challenges they are facing and present a set of best practice procedures for designing semantic search evaluations which are motivated by the IR literature and our experience in running semantic search evaluations. Additionally, it is acknowledged that usability and user satisfaction are of paramount importance when designing interactive software solutions. Furthermore, the optimal design can be dependent not only on the task but also on the type of user. Evaluations can shed light on these issues; however, there has been a limited focus on assessing the usability of semantic search systems in current evaluation initiatives. Therefore, the other part of this talk will present the methodology and results of a first-time user-based study that assessed the usability and user satisfaction of different semantic search query input approaches (natural language and view-based) from the perspective of different user types (experts and casuals).

**Mots-clés :** semantic search, evaluation, user-based study