This paper will apply Jacques Derrida's critique of logocentrism to the concept of warrant to understand how traditional library knowledge organization maps onto the emerging procedures and standards of the Semantic Web. I will make two main arguments:

- That while “warrant” in library science traditionally alludes to the principles by which concepts are admitted into the design of a classification or access system, “warrant” on the Semantic Web alludes to the principles by which Web resources can be admitted into a network of information uses;
- That while the Semantic Web, like traditional information access systems, works on binary oppositions of presence and absence, library information practice suggests a far more complex network of warrant concepts that provide a subtlety and richness to knowledge organization that the Semantic Web has not yet attained.

The standards of the Semantic Web contain some of the most promising venues for the migration of library standards and library knowledge organization onto the World Wide Web. Unlike the loose structures of Web 2.0 practices such as tagging, the Semantic Web rests upon rigorous and consistent, highly-structured data, which makes it an ideal environment for the intricate structures of controlled vocabularies and bibliographic records and classification systems. The new functionalities of the Web, however, along with the anticipated capabilities of intelligent Web agents, suggest that information on the Semantic Web will have much more flexibility, diversity and mutability. We need, therefore, a method for recognizing and assessing the principles whereby Semantic Web information can combine together in productive and useful ways.

This paper will argue that Hulme's concept of warrant, if suitably adjusted for the Web environment, would provide a useful means of translating library knowledge structures into Web-based knowledge structures. Warrant, in traditional library science, is “the authority a classificationist invokes first to justify and subsequently to verify decisions about what classes/concepts to include in the system” (Beghtol 1986, 110). Typical kinds of such warrant include literary warrant (basing a system upon an existing collection or body of literature), scientific warrant (consensus from a learned community on how knowledge becomes stable and consensual (Beghtol 1986, 114)), educational warrant (basing a system on principles of ideal education), and cultural warrant (basing a system on cultural patterns and associations). All of these principles of warrant serve to provide the intellectual justification for allowing terms and categories to appear in one's information system. They provide the underlying rationale upon which to exercise the rigour, consistency and flexibility demanded of a sophisticated knowledge organization system.

The Semantic Web works on principles of machine-understandable data: systems that would enable an intelligent agent to perform logical inferences upon data retrieved, to get specific answers to specific questions, to mine databases, and to discover relevant resources in diverse knowledge domains. These principles manifest themselves through a layered architecture, in which sophisticated ontologies such as OWL (Working Ontology Language) rest upon broader stores of metadata such as RDF (Resource Description Framework), all of which is encoded in XML. All of these standards rely on the principle of the XML namespace: the means of avoiding “collisions” between elements with the same name but different meanings by expanding them with a prefix that designates their origin, or “namespace” (W3C 2006).
By limiting and discriminating between different communities' use of similar element and attribute names, XML namespaces provide a rough, machine-readable analogue to the concepts of warrant used in classification systems. But of course, the concept of warrant mutates considerably in the Semantic Web context. Instead of providing the intellectual or institutional authority that justifies the inclusion or exclusion of a category in a classification system, the XML namespace provides a machine-readable manifestation of that authority, which is used to include or exclude Web resources in three main spheres of activity:

- Resource aggregation: namespaces, as well as crosswalks that map between similar elements in different namespaces, are used when harvesting resources across different domains, to ensure that only those resources that meet the search criteria are found;
- Data extraction: namespaces provide the means of identifying with accuracy the relevant fields and attributes of databases, enabling agents to extract data from the deep web with precision and selectivity;
- User-Resource interaction: as libraries discovered long ago, effective information use depends on translating the user's needs into the language of the information system, a process that is frequently iterative and interactive in nature.

XML namespaces, therefore, provide a useful means of connecting library systems of metadata, classification and thesaural terms to a Semantic Web environment; namespaces for the Dublin Core, for subject heading lists, and for classification categories provide the means whereby the rigour of the intellectual structure of a given field of knowledge can be joined with the power of the search agent, allowing only those resources into a search set that satisfy the demands of this structure.

There are, however, other differences between the notion of warrant in a library system and the notion of namespaces on the Semantic Web. And this paper attempts to expose these differences through the work of Jacques Derrida.

Derrida's critique of Saussure's *General Course on Linguistics* in *Of Grammatology* stands as one of the first and most important manifestations of what later came to be called “deconstruction.” Derrida argued that Saussure, as well as Jean-Jacques Rousseau before him, proceeded from a phonocentric bias which led him to treat the spoken word as the primary signifier of the signified, with the written word as the exterior copy. For Saussure, Derrida argues, the purity of spoken language is always fighting the corruption and debasement of writing. Derrida maintains that this battle has been waged ever since Plato's *Phaedrus*, and that the battle was always already lost. The supposed preeminence of speech over writing relies on a series of binary oppositions that were suspect from the beginning: presence and absence, signifier and signified, exterior and interior. As these oppositions collapse under Derrida's analysis, so too do the logocentric assumptions of language as the articulation of presence.

In the remainder of this paper, I will argue that the binary nature of computer data, forces automated systems into a naive position in relation to their retrieval practices and their knowledge structures. Because the namespace principle attempts to resolve ambiguity to heighten the performance of search agents, it forces the agent to take seriously a series of oppositions that librarians have learned, through experience, to treat with some irony: the opposition of presence to absence, of internal and external, of fundamental equivalence and fundamental difference. Librarians have traditionally responded to these complexities by employing a diverse collection of strategies, based on different principles of warrant, ranging from the literary warrant, through to philosophic warrant and to the principles of
cognitive authority. If the Semantic Web is to develop further as a new environment for library services, its systems and agents will need to find new ways of incorporating the satisficing strategies that have developed in the library world to deal with the incongruities of information environments.

