Proposing to introduce the <semantic> tag

In American/English articles, italics are used to express certain meanings. For example, the Oxford Style Manual 2003 lists electronic references, emphasis, foreign phrases, law text, names, scientific texts, and titles of works as use cases of italics. Especially in STM articles, italics are used to indicate genus-species or bacteria strains.

In Japanese articles, it is customary to concatenate a book name with a kind of quotation marks, "『" and "』". As the same quotation marks can be used to quote spoken text, this use is actually confusing.

In JATS, <named-content> may be used to describe semantic details, but this element is very general, and do not meet recent need to describe precise semantic information. We propose to introduce the <semantic> tag to generically indicate certain meaning of a word or a phrase. To describe the type of semantics, we would like to include attributes such as @vocabulary and @termname. The attribute, @vocabulary, describes the type of vocabulary used such as "RDF", "DC", "taxonomy", specific ontology used, e.g. "Gene ontology" or any other named entities such as book titles or person names. The attribute, @termname, describes the name of the entity value within the ontology.

The example of the <named-content>,

<named-content content-type="genus"> Zea</named-content>
<named-content content-type="species">Z. mays</named-content>

may not be descriptive enough. By using <semantic> with @vocabulary="biological", it is clearer that "genus" and "species" are part of biological classification..

<semantic vocabulary="biological" termname="genus">Zea</semantic>
<semantic vocabulary="biological" termname="species">Z. mays</semantic>

Vocabulary values varies depending on the scientific filed. For example, the value, "chemical" may be used to express various chemical entities such as chemical names or chemical formula.

<semantic vocabulary="chemical" termname="chemical name">Aspirin</semantic>
Recently, many publishers are interested in adding semantic indexing to their journal articles. It is desirable to standardize the way to tag such semantics by JATS.

If <semantic> is used together with emphasizing styles such as italic, it is possible to code it using @style-type and @style-detail as follows. Please refer to our another proposal, "Introducing the Emphasis Tag2 for the @style-type and @style-detail.

This proposal does not intend to replace the current tags such as <bold>, <italic>, <sc>, etc. Rather it intends to provide publishers with opportunity to index semantic terms appropriately for value-added use of contents.