A potential semantic service layer for DOI RAs

Publishers are under increasing pressure to generate new revenue streams from new and existing content. Semantic markup is an area of considerable interest because it provides new ways for readers to find articles of interest and can drive up the perceived value of a publication. But, semantic markup comes with a number of costs, some obvious and some not so obvious. Creation and maintenance of authoritative terminologies, taxonomies and ontologies is expensive because it is labor-intensive and requires highly skilled knowledge workers. And, since terminologies constantly evolving, content annotation becomes a recurring expense to have any real value to readers.

NamesforLife has developed software and services for two distinct markets: scientific, technical and medical publishing; intellectual property management and analysis. Our semantic annotation services rest on two enabling technologies; tools that automate the discovery and tagging (with DOIs) of domain-specific terms in digital content and; a suite of web services that can be tailored to a customer's needs that retrieve linked information about each term. At the core of our services is a proprietary data model using DOIs to deliver semantic services into a publisher's content, either through embedded links or transient links that are created on-the-fly. This allows us to apply independently managed terminologies to a digital library immediately and to provide real-time content enhancement rather than *a posteriori* annotation of a body of literature. This approach also lends itself to novel ways to use DOIs in indexing, searching and retrieving subsets of documents from large corpora based on the underlying meaning of the content. Our semiotic fingerprinting increases the "findability" of related content and makes it more readily available to end-users, thus enhancing its value to publishers.