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Journal Article Tag Suite: As an Information Transformation Tool for Content Interoperability and Enriched Reading

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Journal Article Tag Suite: As an Information Transformation Tool for Content Interoperability and Enriched Reading

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Communication through peer-reviewed journals is essential to record progress in sciences. Researchers publish their scholarly works for others to build upon as they would have done on previously published works. This science communication process is transforming with the advent of web technologies and the read-write web is helping all the disciplines to have crosstalk and connect through the Resource Description Framework (RDF) and Linked Open Data (LOD), etc. The scholarship, which is being generated should be both human and machine readable and should be Artificial Intelligence (AI) ready. While the international publishing houses are using various technologies to ensure worldwide readership, the research organizations and scholarly societies are yet to catch-up with the new technologies. On the above backdrop, this paper will introduce the Journal Article Tag Suite (JATS), which is an XML format developed by the National Information Standards Organization (NISO) for the Indian Scholarly Journals being published by key scientific organizations and Scholarly Societies of India. As of today, Desktop Publishing (DTP) is the only way to typeset and publish articles in the Portable Document Format (PDF). However, many of such default formats do not allow application of bots and do not allow content indexing and mining. Moreover, articles formatted in PDF are less interactive. JATS has a set of XML elements and attributes that are interoperable and facilitate easy tagging and archiving of journal articles. JATS therefore can boost Search Engine Optimization (SEO) and improve web search result ranking. The other aspect of the scholarly content is that it should enable 'Reuse' both by machines and humans. The published content should be available for exchange, storage, retrieval, and sharing throughout the scholarly publishing infrastructure. In turn, it should enable search engines, aggregator & indexer systems to archive and make available in repositories, which are interoperable and have identifiers and catalogues. The Markup software, AmeliCA XML, which is compliant with JATS standards can greatly enhance its functionality. AmeliCA is a recently launched scholarly publication platform and promotes a non-profit publishing model that is led by the scholarly community. Using the AmeliCA XML, journal articles can get added reading values as the articles can be published simultaneously as HTML, ePUB, intelligent viewer, mobile viewer and PDF formats. By using or employing this system, the scholarly societies and the research councils/organizations can automate the editorial workflow, lower the cost of production and can continue to be open (free-to-read and free-to-publish) besides receiving greater visibility to scientific knowledge.