Abstract

The semantic web has evolved over the current web and aims to provide a web that allows for easy retrieval and accessing of information by both man and machine. It provides for a wide variety of technology stacks, language standards and software components which help both man and machine to access data easily. Intelligent information retrieval and the credibility of data is managed in semantic web by the use of Provenance. However in addition to embedding provenance data there is also a need to facilitate its easy availability for the client side for the purpose of manipulation and transportation across. This task is achieved by incorporating the use of JSON in Provenance thereby creating PROV-JSON serializations of the PROV-DM i.e the PROV data model. In this paper we have made an endeavor to create an ontology and have embedded provenance information on the client side using PROV-JSON instances.

References

1. JSON and its use in Semantic Web

(2001). URL:

2. Lu, S., Dong, M., Fotouhi, F, 2002. The Semantic Web: opportunities and challenges for
next-generation Web applications. Information Research, Vol. 7 No. 4, 2002. URL:
http://informationr.net/ir/7-4/paper134.html.


Ontologies and Semantic Annotations with Resource Description Framework. Proceedings of
the Advanced International Conference on Telecommunications and International Conference
on Internet and Web Applications and Services (AICT/ICIW 2006)

http://www.w3.org/DesignIssues/RDFnot.html


Computer Communication and Informatics (ICCCI -2014), Jan. 03 – 05, 2014, Coimbatore,
INDIA

8. Wang Guanhua,2011Improving Data Transmission in Web Applications via the
Translation between XML and JSON-2011 Third International Conference on Communications
and Mobile Computing

between XML and JSON. In Proceedings of 2011 Third International Conference on
Communications and Mobile Computing (CMC), pages 182 – 185, 18-20 April, 2011.

Symposium on Policies for Distributed Systems and Networks (POLICY), pages 25 – 32, 16-18

Note. URL: http://www.w3.org/DesignIssues/LinkedData

Conference on Web Intelligence (WI 2006 Main Conference Proceedings)(WI'06).

13. Online:URL: http://www.w3.org/DesignIssues/LinkedData


16. Online:https://provenance.ecs.soton.ac.uk/store/documents/114345/

17. Online:https://provenance.ecs.soton.ac.uk/store/documents/115642/

18. Haibo,Yu, Tsunenori, Mine, Makoto Amamiya,2012 "Balance: A key factor for the
evaluation of semantic web applications"Proceedings of IIAI International Conference on
Advanced Applied Informatics,2012

Construct a Knowledge Portal for E-Learning Using Ontology".Proceedings of 4th International
Conference on Distance Learning and Education (ICDLE)(2010).

Index Terms

Computer Science

Information Systems

Keywords

Semantic web, JSON, Linked data, Ontology, Provenance, trust