IEEE Big Data Governance and Metadata Management

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Motivation behind BDGMM was developed under the IEEE Big Data Initiative (BDI), an IEEE New Initiative Committee (NIC) funded effort, with leading efforts for big data standardization.

Couple major activities that led to the creation of the BDGMM:


b. 1st IEEE Workshop on Big Data Metadata and Management (BDMM ’2016), was held in Washington, D.C. also confirmed the same results.
BDGMM has potential society, economic, and scientific impact in numerous vertical industries, e.g. financial engineering, biomedical, transportation, education, and power utilities. Specifically, this work will guide how big data and big data exchange is governed. It will enable consumers of big data to better understand what is available and how to access it. It will help producers of big data properly set expectations and take steps to ensure that their datasets can be maintained and shared in accordance with their wishes. It will help organizations that store big data make decisions concerning how the big data is stored, curated, exposed, and otherwise governed so as to best serve consumers and producers.
Big Data Governance Management

Provides authority, control and shared decision making over the management of data assets.
Big Data Metadata Management

Provides mechanisms for how to manage data about content data.
BDGMM Goal

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To enable data integration/mashup among heterogeneous datasets from diversified domain repositories to make data discoverable, accessible, and usable through a machine readable and actionable standard data infrastructure.

From the new global Internet Big Data economy opportunity in Internet of Things, Smart Cities, and other emerging technical and market trends, it is critical to have a standard reference architecture for Big Data Governance and Metadata Management to support the FAIR (Findability, Accessibility, Interoperability, Reusability) foundation principles.
The deliverables are expected to include:

- Workshops co-located at IEEE sponsored conferences to collect, analyze, and identify relevant use cases, requirements, and potential solutions. Document the findings.
- White paper(s) framing the problems, identifying the issues in more detail based from the workshops outlined above.
- Reference architecture(s) concepts and solutions from relevant best practices in big data metadata management to formulate data interoperable infrastructure to enable data integration/mashup between diversified domain repositories, including those maintained by participating entities and IEEE Dataport. A proof-of-concept reference implementation would be welcome.
- Identification and initiation of IEEE standards activities (including recommended practices, guides) related to big data metadata management, including the development of PARs and recruitment of Working Groups within an appropriate IEEE Standards Committee.
Kicks-off Meeting at NIST
June 2, 2017, 3:00PM – 5:00PM
BGDMM Website:
http://standards.ieee.org/develop/indcon/n/BDGMM_index.html