

BYTE - Big data roadmap and cross disciplinary community for addressing societal Externalities*

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Abstract. The Big data roadmap and cross-disciplinary community for addressing societal Externalities (BYTE) project will assist European science and industry in capturing the positive externalities and diminishing the negative externalities associated with big data in order to gain a greater share of the big data market by 2020. In this EU projects networking session, the BYTE research approach and work plan will be presented. BYTE will seek feedback and collaboration opportunities from other related projects and stakeholders interested in the big data economy.

1 Project Introduction

The Big data roadmap and cross-disciplinary community for addressing societal Externalities (BYTE) project aims to assist European science and industry to gain a greater share of the big data market by 2020. In order to do so, BYTE will identify measures that will help big data users to capture and amplify the positive externalities associated with big data (e.g., efficiency, innovation, data sharing, etc.) in a manner that enables them to diminish the associated negative externalities (e.g., privacy, data protection, discrimination, etc.). BYTE will accomplish this by leveraging the BYTE advisory board and additional network contacts to conduct a series of big data case studies in actual big data practices across a range of disciplinary and industrial sectors to gain an understanding of the economic, legal, social, ethical and political externalities that are in evidence. BYTE will supplement these case studies with a horizontal analysis that identifies how positive externalities can be amplified and negative externalities can be diminished.

* <http://www.byte-project.eu>

BYTE moves beyond current practices to consider how big data will develop to the year 2020 using foresight tools to identify future practices, applications and positive and negative externalities. This will allow BYTE to develop, in collaboration with expert stakeholders, a vision for big data in 2020 that includes meeting the relevant goals of the Digital Agenda for Europe. In collaboration with expert stakeholders, the consortium will then devise a research and policy roadmap that will provide incremental steps necessary to achieve the BYTE vision and guidelines to assist industry and scientists to address externalities in order to improve innovation and competitiveness.

BYTE will culminate in the launch of the big data community, a sustainable, cross-disciplinary platform that will implement the roadmap and assist stakeholders in identifying and meeting big data challenges. Furthermore, BYTE will disseminate project findings and recommendations and publicise the big data community to a large population of stakeholders to encourage further innovation and economic competitiveness in Europe's engagement with big data.

The BYTE project is coordinated by Mr. Kush Wadhwa of Trilateral Research & Consulting, LLP, London, UK. The other project partners include: Vrije Universiteit Brussel (Belgium), National Research Council of Italy Institute of Atmospheric Pollution Research (Italy), University of Oslo (Norway), National University of Ireland, Galway (Ireland), National Information Infrastructure Development Institute (Hungary), STI Innsbruck - University of Innsbruck (Austria), Delft University of Technology (Netherlands), Institut National de Recherche en Informatique et automatique (France), DNV GL AS (Norway), and Siemens AG (Germany).

2 Participation at the Networking Session

BYTE started in March 2014, and the consortium has been working on the initial identification of the state of the art on big data, not only including technologies and infrastructure, but also policies and related initiatives. Furthermore, BYTE is currently analysing the elements of societal impact in big data. Finally, the dissemination activities have started, including website population, stakeholder engagement, and promotion. Therefore, in this Session BYTE seeks to engage with related initiatives and communities in order to establish the foundations for the rest of the work planned. In particular, BYTE will benefit from the feedback about its initial findings on societal impact of big data, and from potential collaboration with related projects. Finally, research and industrial community members may wish to join the stakeholder contact list maintained in BYTE, in order to foster further engagement with project results.

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