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EDITORIAL

by Giuseppe Pirlo

Focus on: Step Toward the Digial Agenda: Open Data to Open Knowledge

In the scenario of the Digital Agenda, open data play a crucial role since they are fundamental not only for transparency of public administrations but also for creating new open knowledge and stimulating innovation.

Unfortunately, the actual handling of data for the digital agenda is a complex problem. Every day, 2.5 quintillion bytes of data are created and about 90% of the data in the world today has been created in the last 2 years. In addition, along with the advent of social technologies that allow a near-constant flow of data from individuals to connected sources, the amount of open data will be continuously growing at an even higher rate.

Therefore, specific research is necessary to define new methodologies, techniques and systems that can shape open data into open knowledge. The tools used for this task must be timely, personalized and adaptive as they will need to address the social and economic development in many sectors of society ranging from e-health to e-commerce, from e-government to e-justice, from e-learning to e-democracy, and smart cities.

This Special Issue illustrates some relevant aspects related to open and big data from legal, social and technological point of view, also with respect to a wide range of applications. In addition, the papers included in the volume also focus the most promising research in the field of Open Data and Open Knowledge as key features for the implementation of the Digital Agenda.

In particular, the paper of **J. Maramieri** "*Open Government Data: a citizen's right or a concession of public authorities?*" presents some of the most relevant legal and regulatory aspects of Open Government Data in Italy. Though the paper he shows that some regulatory issues and a still inadequate culture in Italy do not allow this innovation to fully develop its potential. Despite those critical elements, in the last few years a growing number of local governments have opened up their public data and published them on the web, allowing users

to reuse them for broad purposes.

The paper "*Exploiting Big Data for Improving Healthcare Services*" by **M. Mancini** focuses the crucial role of data analytics and business intelligence approaches for improving Healthcare Services and presents a model for the continuous monitoring of health data to improve the efficiency and efficacy of personal care while reducing health costs.

The paper "*Towards the development of user tools for knowledge acquisition in digital document analysis*" by **M. Fairhurst** and **M. Erbilek** describes an approach to the provision of tools which can extract information about the writer of handwritten documents, especially those which were written in earlier times. In fact, these documents can constitute key elements in our heritage and culture, while supporting the development of important application scenarios.

The paper "*OpenKnowledge and OpenGovernment: the experience of the municip@zione Living Lab project*" by **A. Galiano *et al.*** describes the research activity related to the field of open government developed in the municip@zione living lab project. The municip@zione project covers topics of the Italian Digital Agenda and in particular of the Digital Administration. The work is specifically focused on the concept of "Media Accountability" and specific attention is paid on the e-participation by considering both technological and social interaction aspects.

The paper "*Customer centric strategies for value creation: academic experimentation*" by **M. Scalera** and **A. Serra** presents a new customer intelligence system to improve the performance of the academic educational system by extracting knowledge from a data warehouse, according to a customer centric strategy. The experimental analysis made on undergraduate students proves that the CIS allows to detect early the dropout reducing the academic death rate.

The paper "*Data warehouse, reporting and stakeholder engagement. Achievements of the University of Macerata*" by **C. A. Bentivoglio *et al.*** presents a software infrastructure, based on a data warehouse and a collaborative balanced scorecard, that supports the editing of social reports faster and more easy. The experience reported in the paper represents an opportunity to make explicit the tacit knowledge inside the organisation and has prepared the ground for near future development in the field of decision support systems and advanced data mining applications.

The paper "*Open Data from Earth Observation: from Big Data to Linked*

Open Data, through INSPIRE" by **C. La Mantia** and **M. Zotti** addresses some aspects related to the increasing availability of Earth Observation and geographic data, in the context of the regulatory scenario dictated by the INSPIRE Directive . Specifically, the paper aims to identify some business opportunities, related to Linked Open Data and arising from the imminent availability of the Sentinel satellite data, with the European program Copernicus, for companies operating in the so-called downstream services of Earth observation.

The paper "*Lombardy EPA obtorto collo Data and anti-pollution policies fallacies*" by **A. Trentini** addresses the use of open data for pollution monitoring, in order to support institutions in making effective decisions.

As Guest Editor of this Special Issue, I would like to thank all the authors for their valuable contributions to this volume. I would like also to thank all reviewers for their efforts in reviewing papers. Their suggestions and comments have been decisive for the improvement of the papers. Finally, I am very grateful to Luigi Colazzo, the Editor of Je-LKS, and Nicola Villa, the Managing and Technical Editor of Je-LKS, for their support and precious cooperation in all phases of the publication of this issue.

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