Introduction to the Seminar Global interoperability and linked data in libraries

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Why a linked data Seminar? Linked data provide a new language in the world of global communication: from the public administration, banks, insurance companies, to archives, libraries and museums. In technical terms, linked data refers to a set of best practices for exposing, sharing, and connecting structured, readable, understandable and, above all, usable data. Through these mechanisms, data are linked to other external datasets, which, in their turn, can refer to other datasets. All these data create an increasingly vast network, consisting of ontologies, or logically defined groups which meaning is explicitly defined by interacting words and tags. "Linked data" and "semantic web" represent related concepts, referring to the same application domain, as linked data is a technology used for the practical realization of the semantic web. The semantic web, or web of data, is the natural evolution of the hypertext web or web of documents. The Semantic web is a container of things, objects, rather than a container of representations of objects, typical of traditional web or web of documents. In other words, the semantic web is a web in which pages have elements that can be automatically interpreted by machines. Linked data brings to the idea of concreteness: the data

are correlated to the resource participating in its content nature; the data are an integral part of the resource because this resource would not be represented without their data. The web of data is a web in which data are published and connected with the techniques of linked data; it is a web in which each data is much more visible and, therefore, much more (re)usable and interoperable. In this context it becomes clear the need for an integrated access to data, beyond its diversity, quantity, distribution and properties. This Seminar handles primarily the issue of interoperability and openness of data in the library world, by analyzing standards, experiences and best practices for the adoption of semantic web technologies in this field. The data, produced by libraries and maintained in their catalogs are not on the web, but rather isolated from the web. Here it is appropriate to wonder: "How to modify catalogues and data so that they can be of the web and not only on the web?". Nevertheless, libraries have always produced qualitative data in highly structured bibliographic and authority records, as a response to the need of shared rules disseminated at national and often international levels. Unfortunately, today this data begin to represent nothing more than a huge amount of data, unused and unusable. The adoption of the linked data approach will involve a radical change in the creation of tools of mediation between user and bibliographic universe. All sectors of the library service will definitely be interested in the implementation of linked data. In particular, the web search, bibliographic control (with bibliographic description), access, authority control, classification, data portability and disambiguation will be strongly advantaged. The library world and the world of the internet are both interested in the integration within a global network. Firstly, there is a need to ensure a global visibility and usability of data and, secondly, to exploit information and create increasingly large and significant networks. How would it be possible to achieve the

objective pursued?

- first of all, there is a need to transform the textual description in datasets usable for automatic processes and elaborations by machines;

- besides, there is a necessity to make data items uniquely identifiable within the web information context;

- then, it is important that data become compatible with the technologies and web standards;

- as well as it is of big importance to use a cross-interoperable language within the web.

This Seminar aims to highlight the benefits that the linked data can offer to libraries, providing advices on operational procedures by which they can participate in the development of the semantic web. This Seminar intends, therefore, to present an overview of initiatives and evolving techniques at the national and international levels. It also aims at facilitating the discussion in Italy about the benefits of linked data as a new communication language to reduce costs, improve services and deliver greater value to the needs of library users, through more effective and, above all, more shared design of digital information environments. Finally, this Seminar intends to encourage institutions and, in particular, libraries to invest in terms of skills and economic resources. Public institutions and individuals, which chose to open and share their data on the web, have everything to gain from the creation of highly-organized and useful information.

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