

June-July: Special Issue focused on Missing Links

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Today, Open Data is an imperative. Government data, research data, and data from various other fields must be freely accessible and reusable – of course within the limits of legitimate interests of privacy and secrecy. Open Data provides value for democracy and for the economy: Open Data furthers participation, increases transparency, opens up new business opportunities, helps facilitate decision making and drives the app we use every day. To be open, data must be findable, interoperable, accessible and reusable. Free reuse implies that there are no legal, economic or technical barriers to free access – the totality of a dataset needs to be available for download or accessible through an API.

Government and research data are the result of administrative or research activities that are completely or often largely financed by public funds. They deal with issues of public interest. It therefore seems legitimate to open the resulting datasets to the public, so that the data can be exploited in new, fruitful ways that were not originally envisioned. As datasets are non-rivalrous goods, multiple usages do not diminish their value, quite to the contrary!

With these multiple usages of data in mind, Tim Berners-Lee has devised his [five-star maturity model](#) that posits that the most valuable form of open data is linked open data. Linked data

allows data users to concentrate their efforts on the analysis and the exploitation of the data by greatly reducing the effort required to re-capture and to re-aggregate the data for every new purpose. Thus, linked data is a modest extra investment made by data producers or data holders for the greater benefit of all potential and real data users.

As data can be put to a variety of uses, it is impossible to foresee or plan for them from the outset. New questions trigger creative reuses of existing data, and serendipity leads to data being exploited in novel ways. However, data are typically created with a particular intention and for a specific purpose. And the context of their original production matters; data cannot be combined at will, for if we do, we risk misguided interpretations and erroneous applications.

It is therefore crucial to make data available in a form that preserves enough information about their original context, permitting informed re-use by third parties. Furthermore, it is indispensable that the data be made available in a form that facilitates their combination. Linked open data is the state-of-the-art approach to achieve this. However, to fully exploit its potential, we need to foster cooperation across organizations and sectors even in areas where collaboration has rarely taken place. Besides aligning data models and providing the technical infrastructure, coordination is needed in various areas to help organizations acquire the necessary capacity and to foster the required skills among their workforce.

In order to close these gaps, the opendata.ch association has created a linked open data working group. It is open to everyone who is willing to support concerted efforts to promote linked data in Switzerland, not only by calling upon data providers to make an extra effort to facilitate the re-use of their data, but also by enabling cooperation among various stakeholders, and by empowering people interested in using linked open data. Each of the articles of this thematic issue of SocietyByte illustrates one or several of the “missing links” in the world of the semantic web that need our attention if we want to create a flourishing linked data ecosystem.

We wish you an exciting and insightful reading.