

Preface

The amount of open data, including especially linked open data, is constantly increasing in many domains, especially in the public sector. A great number of private and public organizations, institutions, and companies open their data and are interested in efficient solutions for sharing and reuse of published datasets. Obvious benefits come with opening data for end-users, organizations, and developers, by making it easier to find, obtain, and use data independently of their origin, the systems used to produce them, or the applications for which they are intended. This directly connects with the way the areas of learning, teaching, and education are evolving. Indeed, the activity of learning is changing very rapidly, especially through the Web, data, and open technologies. Distance learning is becoming more common, based on openly available educational resources on the Web and the recently appeared massive open online courses (MOOC) both in public higher education institutions and private training centers and organizations.

The primary goal of open data in education is therefore to support these changes through new methodologies and technologies that support the sharing and distribution of information about teaching and the subjects of learning. On the practical side, it serves various purposes such as to help teachers to find and create reusable educational materials, to assist students and families in their educational decisions throughout their life, to improve management systems and many others. For this reason the section of educational open data on the Web has expanded with information about courses and educational materials that can be accessed by tools and applications as well as, social and collaborative resources, thus shaping new architectures of open education. The past few years have demonstrated the growing interest in the topic of educational open data and the growth of the community. During five successful editions of the LILE (Linked Learning) workshops, keynotes, paper sessions, and panel discussions have shown the state of the art and progress in practical work with open data in education. A number of initiatives were started including community platforms (such as LinkedUniversities.org), the W3C Open Linked Education Community Group¹, and activities within the Open Knowledge² and the VIVO platform³, to name just a few.

The goal of this book is therefore to act as a snapshot of current activities, and to share and disseminate the growing collective experience on open and linked data in education. In this volume we bring together research results, studies, and practical endeavors from initiatives spread across several countries around the world. These initiatives are laying the foundations of open and linked data in the education movement, and they are leading the way through innovative applications.

¹ <https://www.w3.org/community/opened/>

² <https://okfn.org/>

³ <http://www.vivoweb.org>

The chapters are selected from extended versions of papers presented at an Open Data in Education Seminar⁴ and the LILE workshops during 2014–2015^{5,6}. They have been chosen to represent the diversity of practices and experiences that exist in the domain, from the researchers, developers, and community leaders who are pioneering the use of open and linked data in education.

In the first part of this book, two chapters provide different perspectives on the current state of the use of linked and open data in education, including the use of technology and the topics that are being covered.

The second part is to be considered the core of this book as it focuses on the specific, practical applications that are being put in place to exploit open and linked data in education today. In these four chapters, applications are presented ranging from the set-up of open data platforms in educational institutions, to supporting specific learning activities through the use of online, open data.

Finally, a key element of the evolving world of open data is to ensure the skills and ability to use such data are there. We therefore focus in the three last chapters of this book on the other side of open and linked data in education: on teaching the technology and practices so they can be widely applied, and on the community of practitioners pushing these practices forward.

We assume the readers of this book are reasonably familiar with modern educational technologies and Web standards (including basics of the Semantic Web). The chapters will be of interest, to varying extents, to academic heads and managers; educators, teachers, and tutors, and start-ups in education; library staff; postgraduates; technology researchers and professionals; as well as students and learners who are keen to better understand how the technologies of the Web and linked data can be applied to support progress in learning and education.

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⁴ <https://linkededucation.wordpress.com/events/open-data-in-education-seminar-st-petersburg/>

⁵ <https://linkededucation.wordpress.com/events/lile2014/>

⁶ <https://lile2015.wordpress.com/>

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