Abstract

Abstract

Public science is critical to the economy and to society. However, much of the beneficial impact of scientific research only occurs when scientific knowledge is disseminated broadly and is used by others. This book examines the emerging policy, law and practice of facilitating open access to scientific research data. One particular focus is to examine the open data policies recently introduced by research funders and publishers, and the potential in these for driving the practice of open scientific data into the future.

This study identifies five major stumbling blocks to sustainable open scientific data. Firstly, it is the *prevailing mindset* that facilitating open access to data is analogous to facilitating open access to publications and, therefore, research data can easily be shared, with research funders and librarians effectively leading the process. Secondly, it is the unclear meaning of the term *data* which causes confusion among stakeholders. Thirdly, it is the *misunderstood incentives* for data sharing and the additional inputs required from researchers. Fourthly, *data privacy*—an issue that only applies to selected research datasets, and yet appears to dominate the discussion about open research data. Finally, there is a *copyright law*, which poses challenges at different stages of data release and reuse.

In this book, it is argued that the above problems can be addressed using a staged model for open scientific data. I draw specifically on the practice with open scientific data at CERN (the European Organization for Nuclear Research) and the practice of sharing clinical trial data to argue that open data can be shared at various stages of processing and diversification. This model is supplemented by recommendations proposing changes to existing open data mandates and the introduction of a text and data mining exemption into Australian copyright law.

Keywords: open data, open science, open research, research data, scientific data, big data, big, science, Science 2.0, digital science, open access, data access, data reuse, data management, research data management, data mining, metadata, legal issues in open data, copyright and open data, big data, privacy of research subjects, confidentiality, open data licencing, data exemptions, data quality, data exclusivity, data ownership, data science, e-research, data service, research data product

IntechOpen

Author details

Vera J. Lipton
Zvi Meitar Institute for Legal Implications of Emerging Technologies
Harry Radzyner Law School, IDC Herzliya, Israel

*Address all correspondence to: vera.lipton@bigpond.com

IntechOpen