OPEN SCIENCE: HOW LIBRARIES CAN SUPPORT INCLUSIVE AND INNOVATIVE RESEARCH COMMUNITY

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Abstract

The Open Science agenda has been established to promote availability of open research information and open publication procedures. Academic libraries have been advocating openness in science and research, believing that Open Science will deliver increased transparency, better quality research, and faster scientific discovery; thus enabling the more effective utilization of research data and results for the greater benefit of society. Libraries, repositories and data centres have been explicitly included as key actors of Open Science and even endorsed publicly by international organisations and stakeholders. This paper conceptualizes Open Science, explores the benefits of Open Science to the research community as well as general society and provides evidence to support the idea that academic libraries play an important role as enablers of Open Science and ultimately an inclusive and innovative research community. Four conceptions of Open Science are presented thematically: (a) Open Science as a research process; (b) Open Science as a taxonomy; (c) Open Science as the movement; (d) Open Science as School of Thought. The paper also describes Malaysian researchers’ general understanding about Open Science and the perceived roles of the academic library. Malaysian researchers have an overall picture of what form Open Science and what it might take. More notably, they recognize the involvement of the academic libraries especially in relation to (a) developing open access policies and roadmaps (b) contributing to the development of research data management (RDM) policies and strategies for home institutions (c) training and supporting for researchers to open their research workflows, sharing and reusing research output produced by others; and (d) providing support to the Open Science infrastructures and tools. This calls for academic librarians whose jobs involve supporting or conducting research, to develop research competencies, and the academic libraries to source research training for research data management and Open Science.

Keywords: Open science; Open access; Open data; Research data management; Scholarly communication; Embedded librarianship; Academic libraries.

Introduction

Higher education in the Open Science is a complex, dialectical and exciting opportunity which can potentially enable an inclusive and innovative academic society. Open Science practices are “breaking barriers that prevent the free flow of knowledge produced by researchers” (Crouzler 2015, p.11). It has the potential to speed up knowledge transfer among scientists and scholars and their scientific disciplines, to foster the growth of new types of scientific cooperation and to stimulate collaborative research. Countries worldwide have established the Open Science agenda and initiative to promote...