

Has the #YorkU STEM community embraced Open Access?

Lucas Colantoni¹, Andrea Kosavic² & Dawn R Bazely^{1,3} ^{1,3}Biology Department, ²Libraries, York University, Toronto, ON, M3J1P3



INTRODUCTION

The scientific publishing landscape is shifting.

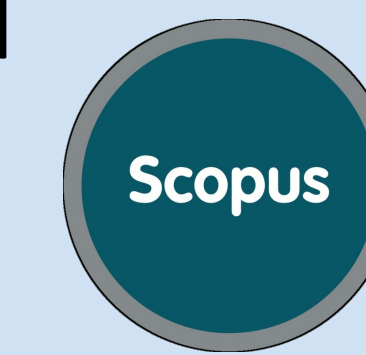
1. Research funders increasingly require raw data to be deposited into Open Access (OA) subject repositories as a condition of publishing in both pay-walled and open access peer-reviewed journals.
2. As university libraries face mounting journal subscription costs, they have become leading supporters of OA journals.
3. University-based Institutional Repositories (digital archives) are Open Access and their content is prioritized by Google searches. They provide highly stable urls for digital content. Research published in open access journals and made available through open access archives such as institutional repositories circulates more rapidly & widely & gains more citations^{2,3}.



We investigated how aware York University's STEM (Science, Technology, Engineering & Mathematics) community is, about the benefits of Open Access, including Institutional Repositories (IR).

METHODS

1. We synthesized usage data for YorkSpace (established 2008) including material deposited and downloads.
2. We carried out a meta-analysis on Natural Sciences & Biology journal articles in the Scopus and Web of Science databases based on the keywords: *institutional repository, subject repository & open access*.
3. We carried out an online survey of York University's STEM community – students, staff & faculty, exploring their understanding of Open Source, Open Access & Institutional Repositories³.



RESULTS

The number in uploads and downloads of digital Yorkspace items has increased since 2008, but, Biology and the broader STEM community is a small part of this activity.

The number of peer-reviewed articles referring to open access and open access repositories in the natural sciences has increased significantly over the past decade, but wider awareness across the broader STEM higher education community is still limited.

Few members of YorkU's STEM community publish in Open Access journals and 92% have not heard of YorkSpace. Most of the community is unaware of the citation benefits of archiving research articles & ancillary data in open access institutional repositories.

CONCLUSIONS

The use of the YorkSpace Institutional Repository, which is 7 years old, as a means of making research outputs open access and widely discoverable, is still at an early stage in the YorkU STEM community, as is overall engagement with the multifaceted, complex open access knowledge ecosystem.

The policies of external funders are likely to motivate STEM community members to make their work open access via institutional and subject repositories.

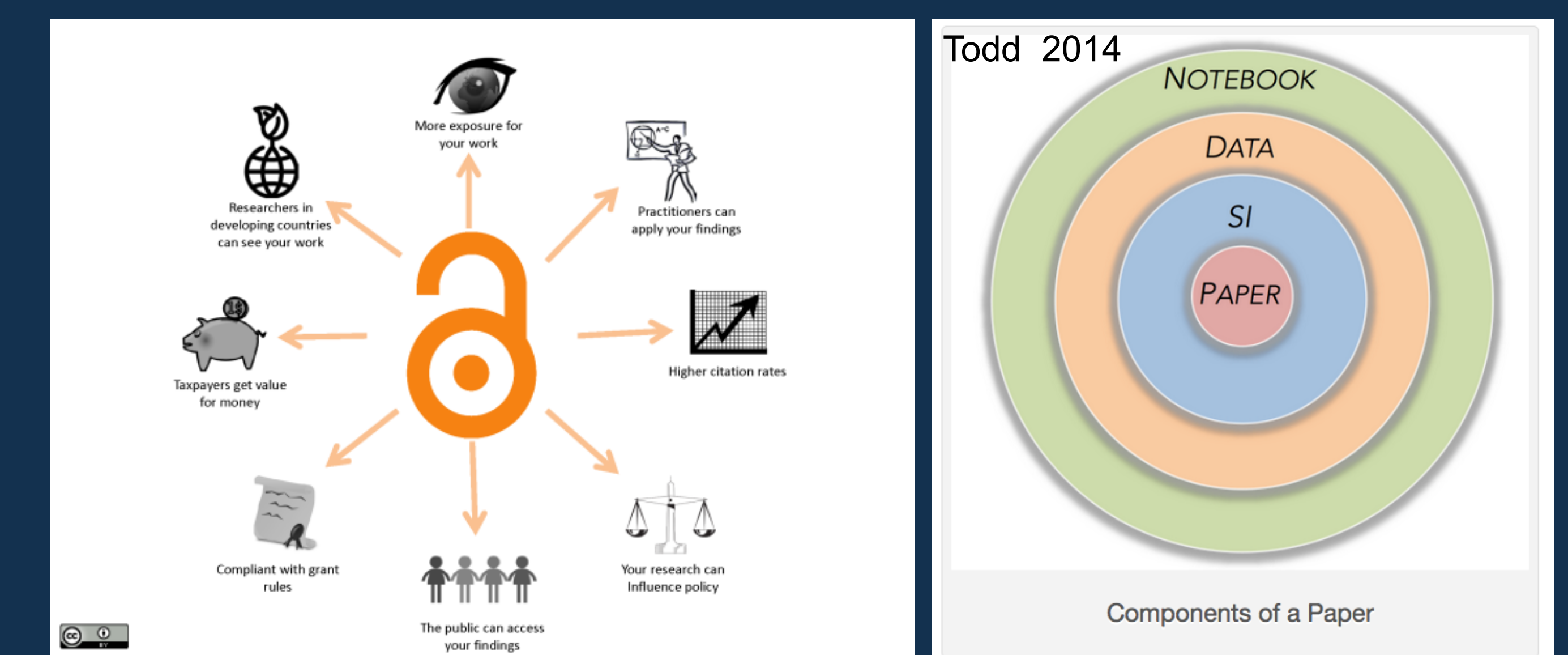
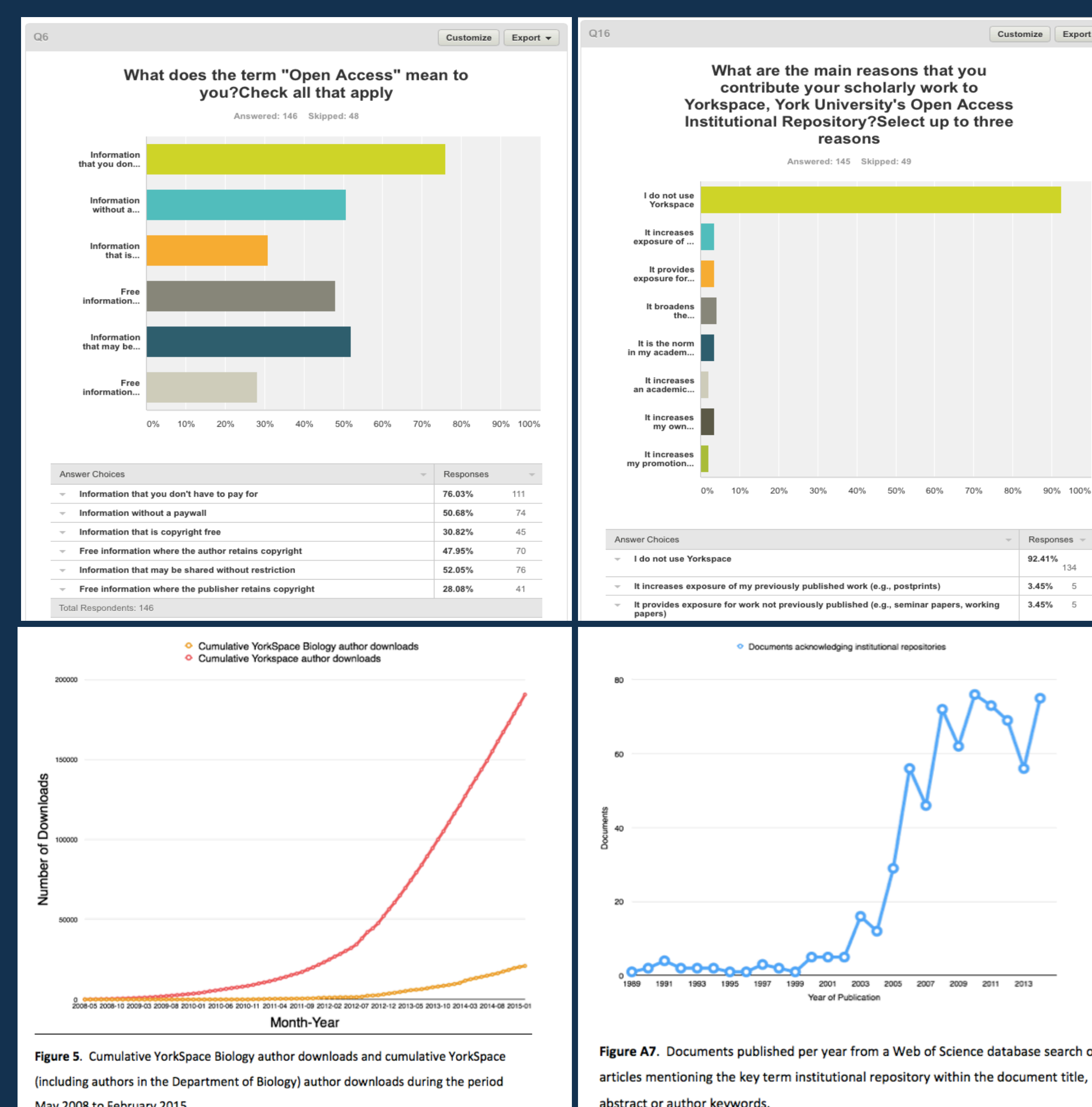
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Open Access: a complex ecosystem

1. Open Access has its roots in the Open Source movement that began in the 1980's. Open Source material is free, publicly accessible & can be modified. Examples of open source software & programming language include WordPress, Drupal, R, Python etc.
2. The author or copyright-holder makes OA literature widely available online, free of charge, and free of most copyright and licensing restrictions.
3. IRs are university-based digital archives for diverse research outputs and ancillary materials. University members upload their copyright-owned or cleared published research, grey literature and data, usually under Creative Commons licenses. The depositor provides metadata e.g. keywords, that increase discoverability in online searches.



open source initiative



<http://aoasg.org.au/resources/benefits-of-open-access/>