Learning that NOT all knowledge is available online by co-creating a research practicum project between undergraduate digital natives and a reprint-request-card professor

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Experiential learning in the form of hands-on laboratory exercises is embedded in undergraduate science curricula. However, undergraduate students also often seek volunteer opportunities in professors' laboratories.

York University's zero-credit Biology Research Practicum course was developed to ensure that unpaid student volunteers in faculty laboratories have a positive, not exploitative, learning experience.

This group of undergraduates co-created, with Dawn Bazely, a research practicum project with the *pedagogical* goal of improving some essential online research skills, and the *practical* goal of reducing the clutter that all academics, who are not digital natives, accumulate.

Before digitized books and journals became increasingly available, students and professors accumulated large reprint collections and photocopies of articles and book chapters. Even today, faculty are often reluctant to part with their hard copies, knowing that not all will be digitally available. Our project tackled *one* of Dawn Bazely's reprint collections, which filled a four-drawer filing cabinet, and had the following goals:

- A. To learn about digital and non-digitized research literature.
- B. To hone students' online fact-finding and library research skills.
- C. To create a reprint collection database with Mendeley open access software.

We developed a structured protocol to determine the online availability of each hard copy. Students learned about pay-wall structures in higher education, the open access movement, and error rates in fact-checking. Students also learned about how researchers found relevant literature prior to the availability of Google Scholar, Scopus and Web of Science, via reprint request cards and shelf copies of Biological Abstracts.

At the semester's end, we went on a field trip to the Clara Thomas Archives. Our project and these research skills are relevant for *all* fields, and this exercise can be applied to reprint collections across all disciplines.