

From topic and research question to published manuscript: A 10-step process to writing a research article through the use of FOSS Tools and open access information

Trevor Watkins^a, Feng-Ru Sheu^b

^aGeorge Mason University

^bKent State University

^atwatkin8@gmu.edu

^bfsheu@kent.edu

Abstract: Many academic libraries around the world has had to deal with budget cuts which limits and reduces access to resources that are behind a paywall. Resources such as research databases, journals, conference proceedings, proprietary software tools, etc. that students and faculty rely on for publishing manuscripts can be taken away as soon it is not fiscally viable to keep them. There is currently little to no Information literacy and research methodology scholarship that discusses the details of how to conduct research with an emphasis on the use of free and or open source tools with open access resources.

In this tutorial we take participants through a 10-step research process of moving from idea to published manuscript guided by the use of Free and Open Source (FOSS) tools beyond the research paywall. Participants will learn how to investigate and utilize open source and free software tools for brainstorming and ideating in a structured way (XMind mind mapping tool), reference management (Zotero), conducting literature reviews (InfoBoosters), academic writing (LaTeX), research management (OpenProject), and quantitative and qualitative data analysis (Julia programming language). Learning outcomes include establishing a working knowledge of the FOSS tools used in the tutorial, understanding and being able to locate the best research resources beyond the paywall (Open Access), and complete a manuscript within a 10-step process.

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