From Poetry to Palmerstown: Using Wikipedia to Teach Critical Skills and Information Literacy in A First-Year Seminar

Brian McKenzie, Jonathan Brown, Denis Casey, Adeline Cooney, Eamon Darcy, Susan Giblin & Máire Ní Mhórdha

To cite this article: Brian McKenzie, Jonathan Brown, Denis Casey, Adeline Cooney, Eamon Darcy, Susan Giblin & Máire Ní Mhórdha (2018) From Poetry to Palmerstown: Using Wikipedia to Teach Critical Skills and Information Literacy in A First-Year Seminar, College Teaching, 66:3, 140-147, DOI: 10.1080/87567555.2018.1463504

To link to this article: https://doi.org/10.1080/87567555.2018.1463504
From Poetry to Palmerstown: Using Wikipedia to Teach Critical Skills and Information Literacy in A First-Year Seminar

Brian McKenzie, Jonathan Brown, Denis Casey, Adeline Cooney, Eamon Darcy, Susan Giblin, and Maire Ni Mhordha

Maynooth University

ABSTRACT
Wikipedia can serve as an effective, engaging tool for teaching key information literacy skills. This article examines the experience of seven faculty members and over four hundred students who edited Wikipedia as part of a first-year seminar. We review the literature surrounding the pedagogical value of Wikipedia and then discuss our goals in using it as a learning assessment. We show that Wikipedia can be used to introduce advanced concepts such as systemic bias as well as to reinforce fundamental skills such as referencing. We conclude by offering practical suggestions for embedding Wikipedia into information literacy instruction.

KEYWORDS
Wikipedia; information literacy; first-year seminar

Introduction
On December 2, 2016, a Wikipedia editor named Shiby301 added the following content to the lead section of the Wikipedia article about the famous English philosopher John Locke:

This is now known as empiricism. An example of Locke’s belief in Empiricism can be seen in his quote, “whatever I write, as soon as I discover it not to be true, my hand shall be the forwardest to throw it into the fire.” This shows the ideology of science in his observations in that something must be capable of being tested repeatedly and that nothing is exempt from being disproven. Challenging the work of others, Locke is said to have established the method of introspection, or observing the emotions and behaviors of one’s self (“John Locke” n.d.).

“John Locke” is a semi-protected Wikipedia article, which means it cannot be edited anonymously or by an editor with an account less than four days old. There are other notable characteristics of this article. As of November 2017, 684 editors have the article on their Watchlist, which means they are notified of any change. Seventy-eight editors reviewed the most recent change. In addition, the article is part of 11 Wikiprojects (teams of editors that work together to improve topics) ranging from Wikiproject Somerset to Wikiproject Human Rights. The article receives an average of 4,839 page views per day (“Pageviews Analysis” n.d.). In short, this is a closely monitored, popular article that is valued by the public as well as the Wikipedia community. As of November 8, 2017, Shiby301’s contribution remained in the article’s lead, the most important part of any article.

Shiby301 was one of 452 students who contributed to Wikipedia as part of an assignment for the “Critical Skills” program (https://www.maynoothuniversity.ie/critical-skills) at Maynooth University during the Fall 2016 semester. This interdisciplinary class for first-year seminar students teaches information literacy, communication skills (writing and public speaking), analytical thinking, and key research and reading skills such as analyzing peer-reviewed journal articles.

Shiby301 also made a small edit to “Aboriginal Australians” on December 2, 2016. The next substantial addition to this article was three days later when the editor Upsidedog added information under the heading “health” (“Aboriginal Australians” n.d.). By coincidence, Upsidedog’s edits were also part of a class, unconnected to our own project, at the University of California, Davis. The presence of two students from different continents editing the same Wikipedia article within days of each other is a sign that Wikipedia is becoming more common as a platform for university assignments. The Wikipedia Education Foundation (Wiki Ed), which limits its work to North America, supported 215 classes in the Spring 2016 semester and 358 classes during the Spring 2017 semester (“Monthly Report for January 2017”; “Wiki Education Foundation/Monthly Reports/2017-05 – Meta” n.d.). The limited geographic
The pedagogical value of Wikipedia

Wikipedia is a living laboratory that can be studied as a socio-technical project to inform diverse academic interests. Elsevier’s Scopus multidisciplinary database shows that Wikipedia is the subject of hundreds of peer-reviewed publications each year. Reviews of the literature divide writings into two categories: research about Wikipedia (including in the context of higher education—pedagogical research, faculty perceptions, and its use by students) and research that uses Wikipedia as a case study to investigate a topic (Bar-Ilan and Aharony 2014; Jullien 2012). Some of the earliest research centered on the empirical accuracy of Wikipedia. A 2006 study by Tom Chesnay found that Wikipedia’s accuracy on varied topics was high (Chesnay 2006). Other empirical studies examining pharmacology, health, nutrition, and medicine reached similar conclusions regarding the accuracy of Wikipedia (Kräenbring et al. 2014; Temple and Fraser 2014). Datamining now produces a steady stream of research analyzing the quality of Wikipedia articles based on metrics ranging from the use of peer-reviewed journals to the characteristics and edit history of individual users (Hu et al. 2007; Javanmardi and Lopes 2010; Neilsen 2007; Warncke-Wang, Cosley, and Riedl 2013).

From these early interests, research about Wikipedia has now expanded. A 2011 collection asks, “What does Wikipedia research look like when the focus is no longer solely on the novelties of (open) collaboration or on whether Wikipedia is trustworthy and accurate?” (Lovink and Tkacz 2011, 4). Given its ubiquity, Wikipedia is attracting more academics interested in the study of popular culture (Beer 2013; Stevenson 2016). Research into the pedagogical value of Wikipedia commonly addresses learning outcomes relating to writing and information literacy (Calhoun 2014; Cummings 2009; Jennings 2008; Oliver 2015; Walker and Li 2016). When using technology in the classroom, the key issue must be whether its use is more efficacious in achieving learning outcomes than not using the technology, or the adoption of the technology allows students to achieve learning outcomes that they could not otherwise reach.

Rationale for using Wikipedia

In the case of Wikipedia, there are two factors influencing our decision to use it. The first is that students’ use of Wikipedia is widespread. Alison J. Head and Michael B. Eisenberg’s survey of 2,318 students from six different U.S. institutions showed that 80% of students use Wikipedia when completing academic assignments (Head and Eisenberg 2010). A study of students at Liverpool Hope University showed similar usage figures (Knight and Pryke 2012). Students use Wikipedia because it offers information on topics in a form deemed to be quicker and easier to access than traditional library search engines (Colón-Aguirre and Fleming-May 2012; Todorinova 2015; Lim 2009). Neil Selwyn and Stephen Gorard characterize Wikipedia as “an embedded feature of most students’ scholarship” but note that most students use it for mundane purposes such as cramming for exams (Selwyn and Gorard 2016, 33). An interesting finding of this study was that students perceive Wikipedia as more useful the further they progress in their studies. Thus, we believed it would be beneficial to students’ future research to give them the necessary tools to assess and evaluate information presented on Wikipedia.

Secondly, as information literacy is a key component to our Critical Skills course (as will be shown below) we
adopted Wikipedia in the classroom as a useful educational resource to allow students to apply their learning and engage in “real world” writing and research. Teaching the basics of referencing, quoting, and paraphrasing is trying under any conditions. Wikipedia is sui generis in providing a living environment to deploy these skills while at the same time illustrating concepts and ideas central to social analysis and ethical behavior. As Piotr Konieczny, an early academic adopter, explains, Wikipedia “can increase students’ motivation…teach them digital literacy, collaboration, and critical thinking skills; and enable them to engage in socially responsible activity” (Konieczny 2016, 1524). Thus, Wikipedia offers a convenient platform that readily caters for student engagement. Its unique nature as a digital ecosystem means that, in a sense, Wikipedia assignments constitute “active learning” (Meyers and Jones 1993).

The Critical Skills course and information literacy at Maynooth University

Critical Skills is a course open to first-year students at Maynooth University. It combines aspects of a first-year seminar with a first-year composition course. The classes are interdisciplinary and combine students from different courses of study. Information literacy is a key component of the curriculum. As a starting point we use the Framework for Information Literacy for Higher Education (Framework) developed by the Association of College and Research Libraries (ACRL)(ACRL 2015). The Framework presents six core ideas metaphorically:

- Authority Is Constructed and Contextual
- Information Creation as a Process
- Information Has Value
- Research as Inquiry
- Scholarship as Conversation
- Searching as Strategic Exploration

The Framework replaces the Information Literacy Competency Standards for Higher Education published in 2000. Librarians emphasize that the Framework is “not a standard, not prescriptive and not a set of outcomes” (Bombaro, Harris and Odess-Harnish 2016). Rather, faculty should use the concepts to develop both “knowledge practices” (proficiencies and abilities) and “knowledge dispositions” (affective and attitudinal) (ACRL 2015).

For us, the Framework has several advantages. The “knowledge dispositions” lend themselves to reflective learning and writing, an important part of the Critical Skills class. The Framework is flexible; the six frames serve as useful starting points for conceptualizing assignments and learning outcomes. They are over-arching and can be illustrated and explained with examples that are mundane or representative of the most advanced academic research. For example, Scholarship as Conversation can be understood on a continuum from basic referencing by an undergraduate student for an essay all the way to the correspondence between Charles Darwin and Alfred Russell Wallace. Finally, the Framework aligns nicely with existing research on developing autonomous learning, self-efficacy, and self-esteem among undergraduates (Macaskill and Denovan 2013; Swanson 2006). A recent survey of a first-year class by Rachel E. Scott at the University of Memphis showed that students could comprehend and appropriate the language of the six concepts in the Framework (Scott 2017). Working with Wikipedia can be used to address all six frames (Walker and Li 2016). Our experience demonstrated that it is especially appropriate for exploring two concepts Scott’s students struggled with: “information creation” and “authority.”

The Fall 2016 semester assignment involved 22 separate Critical Skills classes taught by seven different instructors. The number of students involved in this assignment and its placement in the first semester of the first year of study make our use of Wikipedia unique among educational projects. Our goals for the assignment were that by editing Wikipedia students would:

- find, summarize, and reference academic sources for a popular audience;
- gain a critical understanding of Wikipedia;
- reflect on how editing Wikipedia builds knowledge practices and reinforces knowledge dispositions from the Framework.

Students had previously examined Wikipedia while learning about search strategies. We began the assignment by providing an overview of Wikipedia in a class lecture and discussing two required readings. The first was Chesney’s short article, “An Empirical Examination of Wikipedia’s Credibility” (Chesney 2006). We used this reading to engage students in a discussion about reliability and accuracy, in general, and on Wikipedia in particular, and we accompanied this discussion with a “tour” of some articles about which we could comment as experts. The second required reading was “Wikipedia’s Hostility to Women,” by Emma Paling (Paling 2015). We used this article to introduce the students to the concept of systemic bias, as well as to inform our student-editors to protect their privacy during the assignment.

We required students to complete the Wikipedia Adventure tutorial. This tutorial has the advantage of generating badges on an editor’s user page, which allows for easy verification by an instructor. A dedicated workshop session in a computer lab for each
class provided an opportunity for students to receive help from the instructor, complete the tutorial, or begin editing. The assignment required students to make 10 small edits. Students submitted a text document with a copy of their 10 edits, a link to their user page, and a screenshot of the tutorial badges. The project used the Wikimedia Outreach Program and Events Dashboard to coordinate the program and track our students’ contributions (“Critical Skills—Programs & Events Dashboard” n.d.). The assignment constituted 15% of the overall grades for the course. We assessed it based on the academic quality of the contributions and completion of the tutorial. In-class writing and discussions connected their Wikipedia experience with reflections about the Framework.

Outcomes

Four hundred and fifty-two students from twenty-two classes edited Wikipedia for this assignment. For initial edits, we suggested that students add an external link or a piece of information to the article for their home town. For example, a student added a single sentence to the article on Palmerstown, Ireland, about a visit by Muhammad Ali in 1972 (“Palmerstown” n.d.). Another suggested edit was that a student could add a single book or journal article to the “further reading” section of an existing article. We encouraged students to contribute to topics of interest to them. Some of the edits were low quality. Class attendance was a rough predictor of the quality of edits. Most of the students conducted their edits during the week of November 28 to December 2, 2016. The 452 students contributed a total of 27,600 edits totalling 205,000 words spread over 2,300 articles.

Some students were more ambitious in their choice of articles. Although some of the more ambitious edits were “reverted” by other Wikipedia editors (Wikipedia is like a palimpsest; even if an edit is deleted the traces remain stored on Wikipedia), they provided valuable material for class discussion and reflection. The edits also illustrated the importance of referencing and paraphrasing.

A brief discussion of a class’s experience with the article “Poetry” illustrates the utility of Wikipedia as a teaching instrument. The student Tugs68 added The Selected Poems of Emily Dickinson to the Further Reading section of the Wikipedia article “Poetry.” Less than two hours later, this edit was reverted. Tugs68 brought the page and the reversal of her edit to the attention of the class. We looked carefully at the poetry page in class and quickly realized that all the images on the page except one depicted white men. The following week, one of the course instructors added an image of Emily Dickinson to the page. A different editor reverted this addition less than an hour later as an “unwarranted change.” We used this experience to discuss the contested and contextual nature of authority linking to the challenges novice editors encounter when they edit established and highly rated Wikipedia pages (ACRL 2015). “Poetry,” rather surprisingly given the bias on the page at the time, is a featured article and thus is supposed to exemplify best practice on the Website. We were thus able to use this page to explore the concept of systemic bias—both gendered and cultural bias. One of the course instructors used the talk page of the article to engage with a prolific and experienced editor. In the end, the class managed to make some successful edits to the page (“Poetry” n.d.).

Unprompted evidence for positive changes in students’ attitudes toward Wikipedia, and toward knowledge creation and dissemination, were evident from a post-semester learning journal each student was required to submit. Expressions of surprise at the ease with which they could alter online information, and the empowerment they felt at comprehending and actualizing the right to do so, were at the core of these journal responses. For example, one student commented (original spelling and grammar retained):

I never knew I could edit articles on Wikipedia. In my opinion I thought you had to be someone with many degree’s and diploma’s to edit an article of even create one […] Realizing this it felt good in a way, I had some what power to edit someone’s article, especially when my edit remained. […] I found adding content to an article quit difficult as I had to first find an article that content could be added and then read the article and see where I can add information. I then had to go to Google scholar to find scholarly information relating to the article. However, I did gain lots of information by doing this, it was very beneficial.

The public nature of the Wikipedia assignment appealed to many students, who felt a sense of achievement at engaging with the world; one student remarked: “Although these ten little edits were small, the gratification I felt from doing them certainly weren’t. I got to edit the Wikipedia pages of those who I look up to the most and adding and editing information about my home town. I changed tiny pieces of the internet for the better.” These and other examples indicate that students increasingly grasped the Framework for Information Literacy concepts of “Authority Is Constructed and Contextual” and “Information Creation as a Process” and demonstrated them in their work. The evident value students placed upon their edits may have been responsible for further engagement with Wikipedia after the assignment terminated.
Two months after the assignment, we conducted a survey to measure follow-up participation. Two-hundred and seventy-seven of the 452 students who completed the assignment chose to complete a paper survey. In response to the question: “Have you made Wikipedia edits since working on the assignment?” 21 students answered “yes.” This is a conversion rate higher than that obtained by the Wikipedia Public Policy Initiative (WPPI) which had 615 students contributing from 22 different U.S. universities (Lampe et al. 2012). Our conversion rate was 4.6% compared to 4% for the WPPI (Lampe et al. 2012). Like the WPPI study, we are unable to determine how many of our post-assignment editors became regular contributors to Wikipedia; for context, 0.0002% of users globally who make an edit become regular editors (Lampe et al. 2012). Apprehensions about their own expertise is one possible explanation of the modest rate of continued participation. This is particularly true when the assignment involves first-year students who are required to add academic content and find that their edits were removed or significantly modified. One suggestion to increase follow-up participation is to help students see their work on Wikipedia as voluntary work that can be listed on a resume.

Recommendations for classroom use

We favor the use of Wikipedia for teaching skills and concepts central to information literacy. However, our experience has shown that assignments need to be modest in size and highly structured. If considering using Wikipedia we recommend:

1. As the ACRL frame reminds us, “Authority is Constructed and Contextual.” Wikipedia has its own authority structure based on an editor’s history of contributions, age of account, and engagement with the community (Heaberlin and DeDeo 2016). Instructors should become familiar with Wikipedia independently of the assignment. Establish an edit history and follow the discussion of a few contentious talk pages. The Wikipedia community prefers that coordinators of educational assignments are identifiable. This requires that instructors have an account with which they are comfortable to publicly use to contribute.

Instructors who spend time becoming familiar with the norms of the Wikipedia community will be able to help students avoid many pitfalls new editors may encounter. It is important to remind students that there is some risk to using Wikipedia and that despite our best efforts it is not always possible to protect them from online abuse, although it is worth pointing out that this was not something we experienced in this course. Conversely, it is also important to remember that your students will also be operating with freedom. They may make disruptive edits, copy/paste text from other Web sites, or use images that violate copyright policies. Some of these problems are not unique to Wikipedia.

2. Assessing a Wikipedia assignment can be a challenge. When designing an assessment, it is crucial to recognize that editing Wikipedia can be an intimidating experience for students. As such, we recommend that the assignment be treated as “low-risk” writing. This is an assignment that is a relatively small percentage of the overall grade and focuses on the application of skills or content (Burgess-Proctor et al. 2014). Students should be given full credit for completing the tutorial, for example, and the grades for edits should not be based on whether they are reverted or remain.

3. Build student confidence with small, mundane edits that are likely to remain as part of an article. Some of the most straightforward edits occurred when an instructor distributed pages from a Guinness Book of World Records. The reliability of the source is accepted by the Wikipedia community and its short, digestible entries allowed for quick decisions on what content to utilize. For example, one student was able to quickly update the article “Purr” to include information from the Guinness Book of World Records. (“Purr” n.d.). The chief difficulty students faced lay in finding an appropriate article in which to insert content and—to an even greater extent—in contextualizing the inserted information within the article. Students generally added content to the first article they found, rather than searching for multiple articles in which it might fit.

4. Rather than allow students to edit with complete freedom, we recommend that they first workshop their edits in class. Workshopping provides an opportunity for peer feedback on edits before the student contributes to Wikipedia. The tool Citation Hunt is an excellent resource for helping students make small targeted edits (“Citation Hunt” n.d.). This tool mines Wikipedia for “citation needed” requests. Students can use Citation Hunt to search for topics of interest and then use a library database to find a source to provide the requested citation.

5. Help students understand their edits in the context of a “research trajectory”: identifying a topic, finding quality sources and gathering references, summarizing information, and, finally, writing. We used our exercise in Wikipedia to reinforce our work on essay writing. As for their essay, students
were encouraged to identify a research topic as the basis for their edits, to locate relevant literature, to source further readings, and to engage in academic writing supported by appropriate references.

6. Require that students complete a thorough tutorial as part of the assignment. Understanding the norms of Wikipedia is more important than learning the mechanics of making edits. We found that account creation can pose a technical hurdle. To combat vandalism, Wikipedia often limits the ability to create accounts from the same IP address (e.g., a university computer lab). To avoid this, our students created accounts off campus. Students should contribute using the optional Visual Editor. This is a WYSIWYG editor that is easy to use.

7. We do not recommend that students create new articles unless this is part of an advanced team project. Creating a new Wikipedia article is a surprisingly easy, automated process. The “Wikipedia Article Wizard” leads the editor through the steps, offering advice and guidance along the way. Setting up a page is a tempting prospect for students, but first articles are often deleted by experienced editors. This happened to two students who submitted articles that were quickly deleted for not being notable enough. This can be demoralizing for a novice editor. Even worse, it is often the enthusiastic beginners that leap straight to article creation only to have their efforts erased. It is better for students to concentrate on editing existing articles and adding sources. Wikiprojects ranging from Military History to Feminism to Video Games identify tasks on to-do lists that will improve existing articles. Focusing on these tasks increases students’ chances of their edits being retained, builds their confidence and skills, and has the reward of contributing to a community of editors with shared interests.

### Conclusion

Wikipedia is a powerful teaching instrument. Assignments are scalable in size and complexity. Working with Wikipedia can be an appropriate assignment for students that are either first-year undergraduates or advanced graduate students. Research on the efficacy of Wikipedia as an instructional tool certainly supports its use in the classroom. The work of Tiago Freire and Jingping Li with economics students demonstrates the benefits of editing Wikipedia both to disciplinary knowledge as well as general writing skills (Freire and Li 2016).

Editing Wikipedia may achieve better learning outcomes when compared to a traditional academic essay assignment, but there are myriad other ways to improve the classic essay assignment. For example, is Wikipedia superior to using a multi-stage format that incorporates peer and instructor feedback? Even where a quantitative assessment demonstrates the merits of teaching with Wikipedia, we suggest that an understanding of the holistic benefits of engaging with Wikipedia provides a more compelling argument for its pedagogical use. In other words, the benefits may not be measurable.

There are obstacles to using Wikipedia in the classroom. Wikipedia’s epistemological shortcomings are evident in the technical hurdles faced by educators engaging with it outside of North America. Wikipedia Education Foundation (Wiki Ed) does not support universities outside of North America (“About Us” 2015). Wiki Ed was set up in 2013 as a spin-off of the Wikimedia Foundation. Wiki Ed’s mission to support research and teaching that engages with Wikipedia is meant to compliment the parent foundation’s goal of addressing the decline in its supply of editors, and its “skew toward technical, Western, and male-dominated subject matter” (Simonite n.d.). Given these goals, it is inexplicable that Wiki Ed would limit its support to institutions in the United States and Canada. Unsurprisingly, given this focus, Wikipedia has failed to expand its editing community, particularly to underrepresented regions in the global south. This has led to an orientalist approach in both the subject matter and treatment of entries ranging from female poets to cities in sub-Saharan Africa (Said 1979). A 2015 study from Oxford University found that most editors were from the United States, United Kingdom, France, Italy, Japan, Russia, Spain, and Canada (Graham, Straumann and Hogan 2015). However, the surprising result of this study was that even editors from the global south focus their edits on articles about the developed world.

Convincing colleagues of Wikipedia’s value as a teaching tool is crucial for addressing its systemic bias. Further research into the creative use of Wikipedia in the classroom can help win over faculty. However, even when faculty accept the benefits of teaching with Wikipedia, the lack of support from Wiki Ed will inhibit its adoption. Our experience revealed the potential of Wikipedia to engage students. Few will become editors, but they have a better critical understanding of Wikipedia, as well as a practical knowledge of how to use it strategically, than they did before the assignment. Crucially, it provides a useful platform for students to understand on a deeper level their academic development. They become more aware of the centrality of referencing accurately, the importance of seeking relevant information and the value of clear and concise academic
writing because of the standards set and regulated by the Wikipedia editorial community. These are vital skills that relate to the Framework, which allows students to demonstrate a deeper understanding of best academic practice.

ORCID

Brian McKenzie [http://orcid.org/0000-0002-5886-0172]

References


