

Planning a multi-institution Wikipedia Edit-a-thon for agriculture: Fulfilling the land-grant mission while contributing to the world's understanding of agriculture

Ashley L. Downs

Mann Library, Cornell University, Ithaca, NY, USA.

E-mail address: ald52@cornell.edu

Sarah E. Kennedy

Evansdale Library, West Virginia University, Morgantown, WV, USA.

E-mail address: sarahekennedy88@gmail.com

Jeanne L. Pfander

University Libraries, University of Arizona, Tucson, AZ, USA

E-mail address: jpfander@email.arizona.edu

Kelly Doyle

Wise Library, West Virginia University, Morgantown, WV, USA.

E-mail address: kelly.doyle@mail.wvu.edu

Julie Kelly

Magrath Library, University of Minnesota, St. Paul USA

E-mail address: jkelly@umn.edu



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Abstract:

Many people, including farmers and ranchers, turn to Google when exploring a given topic. Due to the search engine's ranking algorithms, Wikipedia articles are often at the top of the results list. Wanting to enhance the quality as well as the quantity of Wikipedia articles for agriculture topics, librarians at several U.S. land-grant universities recently collaborated to plan two different synchronous multi-institution virtual Wikipedia edit-a-thons. The openness of Wikipedia, including its free, multilingual content, its use of version control, and its low barrier to entry for novice editors, makes it the perfect venue for such an effort. In this paper, we will discuss the objectives of the edit-a-thons which include: to facilitate inter-institutional as well as intra-departmental collaboration between campus units and librarians; to enhance the media literacy and research skills of participants; and, most importantly, to increase access to quality agricultural knowledge for the public good. Challenges and triumphs of the event will be discussed, as will future directions and goals.

Keywords: Wikipedia, crowdsourced information, agriculture, information literacy, land-grant universities

Introduction

Land-grant universities throughout the United States play a unique role in the education of state residents. The distinct emphasis on the coupling of liberal arts with practical training pertinent to state industry has long positioned American land-grant universities to prepare graduates capable of meeting the unique challenges of the modern post-industrial age (Spanier, 1999). In the last two decades, we have shifted from the unilateral transfer of knowledge from campus to community to multi-directional communication pathways between the ivory tower and field practitioners (Kellogg Commission, 1999; McDowell, 2001). Whereas scholars once dictated much of the content taught to students and state residents, land-grant university curriculums are increasingly shaped by the opinions and needs of potential employers and alumni in the state (Schneider, Colglazier, Beutler, Pollard, & Francis, 2005; Cummings, Dragna, Hanson, & Peterson, L. R., 1996; Wheelock & Zekeri, 1988). Employers have reported that the ability to synthesize complex information is a crucial skill of all future hires (Spanier, 1999; Schneider et al., 2005). In fact, looking beyond survey data specific to land-grant universities, we also see that critical information literacy skills are consistently ranked by employers as core skills expected of new college graduates (Raish & Rimland, 2016; Emanuel & Roh, 2013; Ward & Hockey, 2007).

As the ability to not only synthesize, but also locate and assess the credibility of complex information becomes increasingly desired, librarians at several land-grant universities have seized this opportunity. And when considering information literacy on college campuses today, one must consider Wikipedia. Now in its fifteenth year, Wikipedia has become a ubiquitous tool in today's information landscape, popularized as the first massive online platform that draws on the expertise and interests of thousands of contributors (Selwyn & Gorard, 2016; Jennings, 2008). With features like version control and peer review, it is an excellent vehicle for demonstrating the merits of quality citations, fact-checking and ethical writing (Oliver, 2015). Contributors to Wikipedia are encouraged to view previous iterations of article pages to appreciate the article's evolution and use the "talk page" component of each article to suggest improvements, ask clarifying questions and negotiate understanding of a given topic. Wikipedia has become the ultimate public good, providing basic and free information on more than 5 million topics ranging from human diseases to political protests (Okoli, 2014).

Fittingly, the multi-directional flow of information between university and community that characterizes the education and extension efforts of modern land-grant universities reflects the "crowdsourced" nature of Wikipedia. Despite many users acknowledging uncertainty over the platform's credibility, students, practitioners and the public frequently turn to the medium when looking for basic information (Jennings, 2008). Indeed, a distinct value provided by Wikipedia is that it provides a "stepping stone" to other related sources (Coleman, 2007). Moreover, the ranking algorithms used by search engines further perpetuate the popularity of the platform by often including a link to the corresponding Wikipedia page on the first page of visible search results (Perez, 2007).

Knowing this, and inspired by the work of GODAN (Global Open Data for Agriculture and Nutrition), a consortium of over 250 groups ranging from federal entities to academic institutions that advocates for making agricultural data available, accessible, usable and unrestricted (“About GODAN,” n.d.), librarians at several land-grant universities have capitalized on Wikipedia’s wide reach and low barrier to entry as a means to teach aspects of information literacy while also facilitating free and open dissemination of quality information to a wide audience both within and beyond state borders.

Edit-a-Thon Objectives and Structure

In the spring of 2016, two land-grant universities, the University of Arizona and Cornell University, hosted a joint half-day Wikipedia edit-a-thon focused on agricultural content. The specific objectives of the event were threefold:

- To facilitate inter-institutional as well as intra-departmental collaboration between campus units and librarians;
- To enhance the media literacy and research skills of participants;
- Most importantly, to increase access to quality agricultural knowledge for the public good.

The edit-a-thon was preceded by months of planning and “train the trainer” workshops on how to properly edit Wikipedia articles. After identifying Wikipedia articles relevant to research and education programs underway at each respective institution, the edit-a-thon planners invited faculty, students, and staff to the half-day event to learn how to edit the platform, then contribute content that would strengthen the quality of existing articles.

Each institution created a meetup page for the event (See: [UAz Agriculture Natural Resources meetup page](#); [Cornell Ag & Life Sciences Meetup Page](#)) with links to training resources to review in advance and information about Wikipedia “stub” and “start” pages that they might choose to work on at the edit-a-thon. “Stub” pages are extremely brief articles that have been tagged in Wikipedia as needing additional information; they are excellent entry points to the overwhelmingly large platform. At the University of Arizona, the edit-a-thon work focused largely on topics related to rangeland management and ranching, specifically the Rangelands Partnership, an initiative composed of librarians and rangeland specialists at 19 western land-grant universities (“About the Global Rangelands Knowledge System,” n.d.); Arizona’s Santa Rita Experimental Range; vegetation monitoring; and Criollo cattle. At Cornell, the selections varied with several new pages formed while existing pages, including the Cornell Dairy article, were improved with external links and added content.

On the day of the joint event, a staff member at the Wikipedia Education Foundation joined both groups via webcast to discuss initiatives underway to attract more women and minority contributors to Wikipedia. This was followed by a training session taught by librarians at Cornell and webcast to participants at the University of Arizona. Following the training session, the two institutions each began separate working sessions at their respective sites to allow participants time to edit Wikipedia pages with the planners on hand to help. Both institutions concluded with participants reporting on the content they had worked on and their experiences with Wikipedia editing.

Inspired by the plans for edit-a-thons at the University of Arizona and Cornell, librarians involved with the Agriculture Network Information Collaborative (AgNIC) conducted two Wikipedia editing events as well, including a more extensive edit-a-thon for its members and a shorter conference workshop. A voluntary alliance with over 50 partners (mainly libraries at land-grant universities in the United States), AgNIC has conducted a number of projects over its 20-year history for the benefit of the agricultural community, including maintaining a database of high-quality resources and digitizing collections from partner libraries (“About AgNIC,” n.d.).

In addition to the main goal of adding more high-quality agricultural information to Wikipedia, the AgNIC edit-a-thon sought to:

- Encourage new or inexperienced editors and show them how they can contribute to Wikipedia;
- Learn from and document the edit-a-thon experience so that AgNIC may continue to host edit-a-thons at scale; and
- Foster and support the already robust and extensive professional network of agricultural information specialists.

Since many members of AgNIC are female, a side benefit of the project was to contribute to increased gender equity among Wikipedia editors, who have been predominantly male (“Gender bias on Wikipedia,” n.d.; Halfaker et al., 2013).

The AgNIC edit-a-thon began with two live Web-based training sessions and concluded several weeks later with a virtual edit-a-thon that drew 9 participants from 8 institutions. To aid in the training process, the AgNIC hosts created a meetup page for the event ([AgNIC Meetup](#)), with links to training resources as well as links to stub and start pages that participants might choose to edit. Each participant in the final edit-a-thon contributed to stub pages of their choice on topics ranging from horticulture to animal science. Also attending the edit-a-thon was a Wikipedian in Residence for Gender Equity at the West Virginia University Libraries, who answered questions about Wikipedia editing conventions and best practices.

Survey Results

For both the University of Arizona/Cornell and AgNIC edit-a-thon events, participants completed a survey to measure their attitudes toward and experience with editing Wikipedia, their satisfaction with both the training and the event itself, as well as the extent to which they had gained the skills necessary to feel confident and included as members of the Wikipedia community. Participants in the Arizona/Cornell event received the survey in two parts, including both a pre- and post-survey, while AgNIC participants received one survey with very similar questions upon completion of the event.

To better understand participants’ attitudes toward and experience with editing Wikipedia, we asked about the frequency with which they themselves use Wikipedia, their tendencies to evaluate its credibility, and how they perceive Wikipedia as a source. We found that the majority of survey respondents were regular users of Wikipedia, with 57% of respondents for the Arizona/Cornell pre-survey and 86% of respondents for the post-survey using it every day. At least 43% of the AgNIC respondents use it every day, and 43% use it at least weekly.

Results indicate, however, that despite their frequent use of the source, many participants rarely evaluate the credibility of Wikipedia articles by locating the primary literature on which the articles are based. Among the Arizona/Cornell cohort, 57% of respondents who took the pre-survey and 57% of those who took the post-survey said that they do not regularly evaluate the credibility of Wikipedia articles by locating the primary literature on which the articles are based. 43% of AgNIC respondents said that they sometimes evaluate the credibility of Wikipedia articles by locating the primary literature, and 43% said that they do not regularly do this.

Initial survey results also indicate that respondents have differing opinions on what kind of source Wikipedia is. When asked whether they identified Wikipedia as a primary, secondary, or tertiary source—or whether they were unsure—, 36% of respondents to the Arizona/Cornell pre-survey identified it as secondary, and 57% identified it as tertiary. (In the post-survey, 100% identified it as tertiary.) Among the AgNIC cohort, 57% of the respondents identified it as secondary, 29% identified it as tertiary, and 14% were unsure.

With regard to the kinds of editing activities in which participants were interested, survey results show there was interest in an array of editing activities, from adding references to and otherwise editing existing articles, reading talk and WikiProject pages to identify articles that need additional development, and even writing entirely new articles. In the Arizona/Cornell post-survey, 57% of respondents said that they had written a new article; 86% had edited an existing article; 57% had added references to an existing article; 71% had read the talk pages for an existing article; 86% had read the references at the end of an existing article; and 43% had read a WikiProjects page to identify an existing article for editing. Among the AgNIC cohort, 14% had written a new article; 29% had edited an existing article; 29% had supplemented an existing article with references; and 14% had read a WikiProjects page to identify an existing article for editing.

When asked what additional topics they would like to see covered in the training, respondents wanted more detailed instruction on how to create new articles as well as how to include photos, graphs, tables, and other media. They also wanted to know more about different levels of Wikipedia articles, such as articles that have been rated as “very good,” “good,” etc. and what the criteria are for receiving such a rating. Finally, respondents requested additional instruction on how to interact with other members of the Wikipedia community, including how to join and interact with others through WikiProjects.

In terms of training for the edit-a-thons, survey responses indicate that participants generally felt that the training sessions were clearly defined and participatory in nature, led by well-prepared trainers who met their objectives. Some respondents, however, felt distracted or distanced from the trainer in the virtual environment.

Finally, we wanted to know the extent to which participants had gained the skills necessary to feel confident and included as members of the Wikipedia community. Among the Arizona/Cornell cohort, 71% of post-survey respondents said that they “Strongly agree” that they are part of the Wikipedia community, and 71% “Strongly agree” that their contributions will be useful to other Wikipedia users. 43% “Agree” that they understand the basics of Wikipedia etiquette and editing conventions, and 43% “Strongly agree” that editing Wikipedia articles is a valuable way to spend their time. 57% “Agree” that as a result of their participation they feel comfortable editing articles in Wikipedia by themselves, and 43% “Strongly agree” that they feel inspired to attend another edit-a-thon in the future.

Among the AgNIC cohort, survey responses demonstrate a little more ambivalence. Although 86% “Agree” that their contributions will be useful to other Wikipedia members, 57% of respondents say that they only “Somewhat agree” that they feel like they are a part of the Wikipedia community. Although 14% “Strongly agree” and 71% “Agree” that they understand the basics of Wikipedia etiquette and editing conventions, the majority (43%) said that they only “Somewhat agree” that they feel comfortable editing agricultural articles by themselves.

There seems to be some ambivalence as well about whether editing Wikipedia articles is perceived as a valuable way to spend their time, with 14% who “Strongly agree,” 29% who “Agree,” 29% who “Somewhat agree,” and 29% who “Neither agree nor disagree” that editing Wikipedia is a valuable way to spend their time as an agricultural information specialist. This ambivalence may be due in part to the fact that nearly all participants were librarians who may have a perception that this work is not considered scholarly or as serving the needs of their home institutions.

With this survey data, we hope to continue improving our edit-a-thon training and hosting efforts. Knowing, for example, that many participants rarely evaluate the credibility of a Wikipedia article, we may provide more instruction on how to analyze (and potentially correct) the primary sources that others have added to Wikipedia articles.

We can also improve our training efforts by identifying gaps in coverage and implementing a more scaffolded approach. Knowing, for example, that participants struggle with identifying what kind of source Wikipedia is, we may educate our editors to treat Wikipedia as a tertiary source according to Wikipedia's policies (“Wikipedia is a tertiary source,” n.d.).

We may also consider modularizing the training sessions based on the type and relative difficulty of the editing activity. New or novice editors may work on a team that focuses on introductory level editing activities, such as first learning how to use WikiProjects to identify pages that need work, followed by learning how to read and contribute to talk pages, and then learning how to add, review, and correct references for existing articles. Training may then advance to the more difficult tasks of editing the text of existing articles, as well as writing entirely new articles. Meanwhile, a second team comprised of more experienced editors may receive training on such advanced activities as adding tables, graphs, images, and other kinds of media to Wikipedia articles.

Finally, knowing that some participants feel distracted or distanced from the trainer in the virtual environment, we may strive to have more face-to-face training sessions, or have individuals at each site who can provide instruction and help their peers edit at their own pace.

Future Directions

With Wikipedia’s continued growth and presence in academic libraries through training and instruction, edit-a-thons, and Wikipedian in Residence roles, the effort to sustain and build these initiatives is increasingly valuable. As such, it is crucial for students and librarians alike to be fluent in editing Wikipedia, rather than simply passive readers of existing Wikipedia articles. In making these articles as complete as possible, we as librarians can contribute to the dissemination of knowledge and encourage readers to continue their research beyond the tertiary source stage. Instead of viewing Wikipedia as limited, we have the opportunity to

build this platform in a meaningful way that encourages further investigation, up to and including scholarly sources.

Meanwhile, the Wikimedia Foundation and the Wiki Education Program are currently implementing programming that introduces Wikipedia into the college classroom and especially in library instruction to first year college students. This momentum and support will only increase worldwide access to quality agricultural information and reinforce the importance of the collaborative initiative we have started.

Cornell and Arizona (who are themselves AgNIC partners) expect to use the experience of planning and hosting this first edit-a-thon to serve as the basis for a broader Wikipedia edit-a-thon effort in collaboration with the GODAN Secretariat. They also hope that edit-a-thons will become a more regular event on their campuses, with the possibility of hosting “traveling workshops” within local campus departments.

AgNIC will continue to focus on Wikipedia editing as one of its strategic initiatives, and plans to host workshops at annual meetings, as well as additional virtual or face-to-face editing events. Once a critical mass of library staff have gained experience, more AgNIC partners may then begin hosting edit-a-thons at their home institutions, either for members of the university community or for others interested in agricultural information.

We will continue to survey edit-a-thon participants, creating a more robust dataset to improve future editing activities. Further, as the community involved with hosting agriculture edit-a-thons grows, the labor and time commitment needed to host such events will decline, making them more sustainable.

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