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Making a case for Zotero
Embedded courses, collaboration, and resources sharing

Zotero has been one of the preferred citation tools students use for research. The Arizona State University (ASU) Library instructs undergraduates and graduate students on using this tool. Recently, the ASU Library has had librarians and library staff embedded in courses called Humanities Labs. With librarians assisting faculty in these courses, they have provided instruction on platforms and tools such as Zotero and My Maps (a Google platform), enabling students to shine to their fullest. In a Spring 2021 Humanities Lab, the library staff worked with course instructors Jessica Kosak,[1] Enrico Minardi,[2] and Dennita Sewell.[3] In this course, they decided to use the full potential of Zotero to help students create bibliographies for their group projects. The goal was to use Zotero as a tool to collaborate and link their Zotero groups to their final project and then post the projects to Instagram. The point of the connection was to make sure their sources were present so viewers could see where they got their information. By providing the Humanities Lab at ASU with an understanding of the benefits of Zotero, the use of the tool created an excellent case study for its versatility within collaborative courses.

ASU's Humanities Lab

The Humanities Lab[4] at ASU is an innovative project that changes how faculty and students interact with instruction and research. Beginning in spring 2017, the lab has worked with ASU faculty and library staff to implement a teaching environment that focuses on social challenges. A popular program at ASU, the labs are designed to find solutions to human-centric issues focusing on societal change. These labs are successful due to interest in working with faculty and other students on projects that can make a difference. Some examples of current humanities lab courses include Aging in American Culture; Deconstructing Race, Food, Health, and Climate Change; and Sustainable Fashion. The Humanities Lab is an opportunity for students to research, brainstorm solutions, and combine their different studies on real-world applications.

Zotero

Like most citation tools, Zotero[5] assists users with collecting sources for their research. The first benefit of using this tool is that it is open-source, meaning that it is free. Because it is

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open-source, the platform is maintained and updated without cost, making it available to graduating students for continued use. To use Zotero, one has to download the desktop software, install extensions to browsers, and add plug-ins for writing software programs like Microsoft Word and Google Docs. According to the Zotero website, it is the only software to detect essential sources encapsulated on web pages. This tool is multifunctional and includes many different features that help users with their research. Not only that, the online component lets users work together by being a collaboration tool as well, such as sharing citations, group notes, and tags.

Benefits of Zotero groups

What is so beneficial about Zotero groups? The advantage of having grouped citations is that they can provide a space for students, library staff, and researchers to work together on projects. When working with others, knowing references that your project colleagues are working on can lead to more efficiency and better-suited citations. Zotero groups prevent extra work, such as providing a list of researched themes, subjects, or titles to avoid duplicate citations within teams. Not only that, Zotero groups can be used to collaborate more effectively with other researchers, for instance, sharing notes to label citations and your thought process. Zotero groups also have the added benefit of helping to organize references into categories for discoverability. Group folders are available to compile sources and share with others to create a more versatile application for people to use and enjoy within the same institution or globally online. Once a research project is ready to be published, teams can share their resources via a link.

Sharing can occur online during writing, for example, within an article or blog. In the case of a blog post, there may be a long list of citations from various resources, like databases, the Internet, and government documents. Linking a Zotero group folder directly to a social media post rather than copying and pasting the whole bibliography might be a way of cleaning up online content in addition to providing credible sources. Producing Zotero group links to sources used for their post offers viewers a breadcrumb trail to reliable information. By equipping people with an opportunity to share sources on social media, where misinformation is rampant, Zotero groups can bring forth a higher level of information sharing. Providing a link to a Zotero group can create an environment where readers and researchers with opposing viewpoints can have an informative discussion.

Zotero groups at the ASU Library

The Humanities Lab has partnered with the ASU Library to enfold information literacy in their courses. Each semester the lab offers courses that are designed to engage students with real-world problems. Library staff are considered to be an integral part of the labs and courses. Prior to each fall or spring semester, library staff meet with faculty during course development phases to integrate research needs into the curriculum and syllabus. Library staff play a key role in informing faculty and students as library instructors embedded within these courses. Library staff assists with research help during classes, one-on-one chat with students, and in group settings, like Zoom breakout meetings. At the beginning of each semester, library staff also presented library instruction regarding library tools, most notable databases for research, or citation management. They also make recommendations

that helped faculty meet course assignments and guided adoption of the tools throughout the semester.

During the semester, library staff who participated in Humanities Lab: Sustainable Fashion (HUL 494)[6] recommended two essential tools that were incorporated into class teaching. The course was about sustainability in the fashion industry, where students studied fashion's impact on the environment. The class had a wardrobe inventory assignment that analyzed the clothing in their closets, mapping the origin of each item. The assignment's goal was to showcase how fashion and clothing are truly international and touch many countries and cultures. Library staff recommended using Google's My Maps[7] to upload garment photos and add geocoding information to create an online map shared with the class. Students were also encouraged to use tag metadata to describe each garment and country of origin, like #pants and #india.

Another critical tool the library staff recommended was the use of Zotero to keep track of research information. For the final assignment, the class was required to post on the Humanities Lab's Instagram site.[8] The course worked in groups throughout the semester based on a blockchain data storage tracking method as a possible system in the fashion industry. Blockchain is a means of keeping track of a collection of information that is decentralized, held in blocks, and is publicly available to be viewed by anyone. Applying this method to the fashion industry, the course assigned blocks within the fashion manufacturing chain to students, from fibers to retail. Each group researched how blockchain can streamline the fashion industry, looking for sustainable and transparent solutions.

Figure 1. Example of an Instagram post using Zotero groups as a reference tool by author Christina Sullivan.[9]

Groups worked together on different parts of the blockchain, such as environmental disposal, garment dyeing, labor textile production, and retail. While researching aspects of the fashion blockchain, library staff recommended using the Zotero citation tool to keep track of the group's research. They demonstrated how it could capture citations from library databases and Internet sources using its extension tool. For the final assignment, the class created an Instagram post that encapsulated their research, showcasing each block in the blockchain. With each block in the chain, students needed to include their research citations. Since the citation lists were long, library staff recommended using Zotero groups. Library staff informed students of how to create these groups, add members, and make them public so anyone in the world could see the citations and research. Students added citations to the groups and created a link that could be added to their final Instagram post. Users can see the blockchain post,

along with the link to the Zotero citations that they could follow if they were interested in more research within the fashion block.

With the tools we presented, the students successfully used Zotero for their research. Each group added their research citations to their blockchain Zotero group library, and they used Zotero to create bibliographies for their final projects and presentations. Students readily adopted the use of Zotero groups, and several found it to be very valuable. At one point, a student stated enthusiastically how he was encouraged to use Zotero in future classes. When it came time to post on the Humanities Lab Instagram, students submitted their blockchain post to the Humanities Lab social media coordinator. During the Sustainable Fashion Instagram Takeover week, the posts were showcased, and the public were able to read and interact with the posts, including liking and commenting. From our perspective as embedded library staff, it was evident that class groups enjoyed their sustainable fashion blockchain topics and showed enthusiasm in their well-researched and creative posts. We suggested the use of the Zotero group libraries for the students to include in their Humanities Lab postings. The benefit being, the Zotero group library provides a permanent link to an online bibliography of research. It also includes a shortcut to an online source, reducing the need to include a long bibliography in each post. Even though not all the class groups provided a link on Instagram, the groups still have access to a public online library of their citations in case there is a need to share their research in the future.

Figure 2. Example of a Humanities Lab Instagram posting during the Sustainable Fashion Instagram Takeover week.

Conclusion

With the library embedded into the Humanities Lab: Sustainable Fashion course, we discovered that Zotero has more uses than simply being a citation tool. Zotero met the class's need to record research, share citations within their groups, and provide a paper trail of citations for anyone interested in the blockchain method and fashion industry. Not only that, Zotero enabled an effective means to share research with the students' assigned social media posts. Library staff taught alongside faculty within the course and were an integral part of student success. For future usage, Zotero can be a revolutionary tool for social media and resource sharing, leaving a trail of information for scholars and anyone interested in a topic.

Notes

1. Jessica Kosak, ISearch, accessed December 14, 2021, https://isearch.asu.edu /profile/574789.

2.   Enrico Minardi, ISearch, accessed December 14, 2021, https://isearch.asu.edu /profile/1625217.

3.   Dennita Sewell, ISearch," accessed December 14, 2021, https://isearch.asu.edu /profile/991147.

4.   Home Page, Humanities Lab, accessed December 14, 2021, https://humanities.lab. asu.edu/.

5.   Zotero, Your Personal Research Assistant, accessed December 14, 2021, https://www. zotero.org/.

6.   Sustainable Fashion, Humanities Lab, accessed December 14, 2021, https://humanities. lab.asu.edu/sustainable-fashion.

7.   About–Google Maps, accessed December 14, 2021, https://www.google.com/maps /about/mymaps/.

8.   ASU Humanities Lab (@humanitieslab) Instagram Photos and Videos, accessed December 14, 2021, https://www.instagram.com/humanitieslab/.

9.   Maria Sully (@nature.Gally.Doll), Instagram Photos and Videos, accessed December 15, 2021, https://www.instagram.com/p/CV51W72vJ-X/. ✄