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Is there an app for that?

A review of mobile apps for information literacy classes

Our learners are as varied as the techniques we employ in information literacy classes. There is, however, one facet common to almost all of them, and it's technology use. Let's look at some recent numbers from the Pew Research Center. In the 18 to 29 age group, 94% of Americans own a smartphone, that number drops to just to 89% for ages 30 to 49.[1] Tablets are also common, with 64% of Gen Xers and 54% of Millennials owning tablets.[2] Spending time online also cuts across generations. In a March 2018 study, Pew reported that 77% of Americans go online daily, with 26% of that group stating that they are "almost constantly" online, and 43% noting that they go online several times a day.[3]

When we look around our libraries, students are routinely using their phones, tablets, and laptops as the basic tools for their research, and they seem to be online more often than not. When we talk about meeting students "where they are," we are typically referring to teaching to a student's skill-level. We propose expanding that to meeting them where they reside in the digital landscape, and, increasingly, that involves an app-based environment on a personal device.

We have reviewed four mobile apps that work well when teaching students and addressing the ACRL Framework for Information Literacy for Higher Education. Each short review addresses the pros and cons of each app, provides a teaching example, and notes a specific Framework connection. We acknowledge that mobile apps are not always the best tool for accomplishing your learning outcomes. We also think trying something new can reinvigorate your instruction. Often, instructors use what is comfortable and familiar to them. However, what is comfortable can become routine. Routine can become rote, and rote isn't a far step from boring. So we chose four apps that are free, easy-to-use, and effective for engaging our learners. We hope these ideas will enable you to feel free to experiment with meeting your learners where they are.

Padlet

Padlet (https://padlet.com/) is a digital bulletin board app available for iOS and Android phones and works with the Google Chrome web browser. A padlet is a blank board and can be a collaborative space or simply a space to share information. It has an easy-to-use, customizable visual presentation. If desired, you can upload your own logos and graphics.

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In the past, Padlet allowed for unlimited padlets, but a recent change to their free version now allows a maximum of three padlets for new users.

Teaching with the app

Even with these limitations, Padlet has wonderful possibilities for use in library instruction. One way to teach with Padlet is to create a "sample post" of the classroom assignment for students to use as an example. On their own posts, students put their names, their research question, the keywords they are using, and the database they are searching.

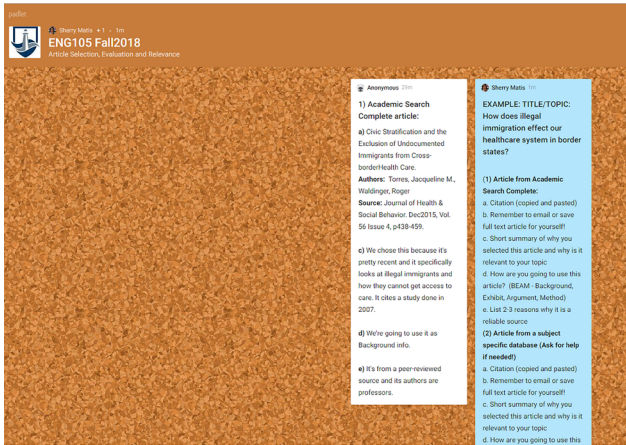Once they have found an article, they can create a citation and/or include an article link. During the activity, everyone can see what each person is doing and learn from their peers. Simultaneously, the librarian can work with students and provide individualized help. Both the librarian and the course instructor can see the research question and how the student began searching. This activity works well with the Searching as Strategic Exploration frame.

After class, the padlet can be shared with the course instructor as an administrator and both the librarian and instructor can comment on the students' work process. This facilitates assessment of both learning and teaching. The padlet link or the padlet itself can be added or embedded to an LMS so that students continue to have access to their work after the session.

A look at the digital bulletin board Padlet. View this article online for a more detailed image.

Pros/cons

Padlet's advantages include ease of use and access, an option for multiple administrators on a padlet, and the ability to embed many formats. Students can access the padlet simply by having the link, no account creation is necessary. Double clicking anywhere on the bulletin board will create their own space for text writing, uploading documents, images, videos, URLs, audio files, or a map location. Unlike other Google apps, such as shared Google Docs, Padlet allows students to edit only their own writing space, while still being able to view the work of others. Even in the free version, you can add an administrator who will be able to edit the Padlet as well as the posts made by students.

The negatives relate to Padlet being designed for Chrome. Therefore, if you use another browser, it may not work as well. Also, recent changes to the free version are very limiting for teachers who may want to use this tool in more than three classes. Their website offers a teacher plan for $12 per month.

Socrative

Socrative (https://www.socrative.com/), from Mastery Connect, allows you to create quizzes, polls, and questions for in-the-moment student feedback. It's cloud-based and can be used on a tablet, phone, or computer. The teacher creates a "room" that is essentially an online workspace containing your activity, which is

in the form of a single question. You can select from multiple choice, true/false, and open-ended formats. Alternatively, the Space Race feature, which is the most graphically oriented of the Socrative tools, uses a graded quiz that students take as they "race" toward the highest grade. For all activity types, instructors can choose app settings related to anonymous replies and responses per students.

The cloud-based Socrative app for quizzes, polls, and questions.

Teaching with the app

Socrative provides an easy way to get real-time feedback from your students. At the end of your activity, you will also receive a report containing student responses. This app can be used as an open-ended question at the start of class to engage students. You can also pose a question to begin a discussion about a specific topic, such as citing and plagiarism. Reviewing the responses as a class presents an opportunity to address the Framework area of Information has Value. Using peer-to-peer discussions, you can

Mindomo is a mind-mapping tool.

take the activity a step further in Socrative by having teams of students use the voting feature to select the best answers from the original list of responses.

Pros/cons

Socrative's cloud-based structure makes it easy to use, and the screens are clean and easy-to-navigate. Receiving the reports for each activity can provide helpful insight about our students' skills, perceptions, and areas of weakness and strength. A disadvantage to the free version is that it allows for one room per instructor and only one activity, with a maximum of 50 at a time. If you want to do more than one Socrative activity in a single class session, you'll have to exit the current activity, clear the room, and create the new activity on-the-fly.

Obviously, this can be time-consuming, especially if you're teaching a 50-minutes class. For a yearly subscription of $59.99, a teacher can have up to ten rooms and access to more advanced features. It should be noted that Socrative has a clean look, but lacks colorful visuals.

Mindomo

Mindomo (https://www.mindomo.com/), by Expert Software Applications, is an online mind-mapping tool that integrates with Google apps. There is also an app available for both iOS and Android, with online and offline options and synchronization between the two. Mind mapping can be used for brainstorming, as well as research topic organization.

Teaching with the app

This app has been used frequently in our library information literacy course for narrowing a research topic and developing a research question. It visually helps students organize their Research as Inquiry process and demonstrates that d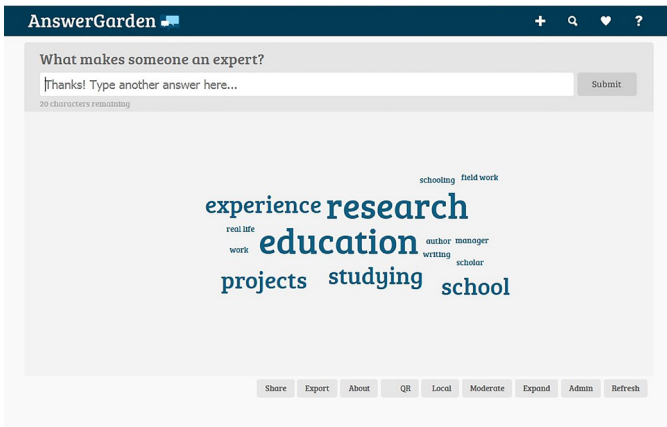uring the research process, questions often lead to other questions, showing that research is not linear and may take you in unexpected directions.

Students begin with their broad topic question. The assignment requires that they have at least three subtopic questions to explore. By sharing their mind map with the instructor, notifications of changes are sent to the instructor, who can then provide feedback through the Mindomo comment tool. A final noteworthy feature is the ability to turn a Mindomo map into a slideshow presentation. This could be used as a visual device for oral presentations as students explain their research process step-by-step.

Answer Garden is a text-based brainstorming tool.

Pros/cons

Mindomo's benefits include ease-of-use, commenting features, and the ability to get notifications on changes to the document. In the free version, Mindomo offers five templates ranging from a basic outline to a blank concept map, and it allows you to create up to three maps. Like other Google apps, a version history is available, and you can share your work with others selecting either viewing or editing permissions. This allows for group work, as well as feedback from the instructor. Adding topics or subtopics is as simple as double clicking on the page, then adding text to the box that appears. Editing the map is also simple through drag and drop. The free version also provides for easy searching and insertion of videos from YouTube or Vimeo, URLs, or links to your other Mindomo maps. There is an adequate icon library that includes numbers, check marks, and arrows, which are helpful for organization or project management.

Mindomo can also be added to most of the more popular LMS systems. The drawback of Mindomo is that some of the useful features, such as downloading in certain formats or uploading documents, are only available in the upgraded, paid version. If you wanted to use the free version for a class assignment, each user would need to create an account. However, you can log in through your Gmail account.

Answer Garden

Answer Garden (https://answergarden. ch/), from Creative Heroes, is an online text-based brainstorming tool. It's available via website and as an iOS app. Instructors pose a question and student responses display live as a word cloud.

Questions that solicit brief answers are best, since there's a 40-character limit. There are four modes: classroom, brainstorm, locked, and moderator.

Teaching with the app

Answer Garden can be a great icebreaker or quick student engagement tool. You can pose a general question on what makes someone an expert. This has been effective for starting classroom conversations on identifying credible, authoritative sources and relates nicely to the Authority is Constructed and Contextual frame. The word cloud provides a nice visual addition to an information literacy class, while also supplying you with a graphic representation of students' knowledge on a topic, allowing an instructor to assess the knowledge in the room and adjust instruction as needed. The key is to develop your question so that brief, ideally one-or-two word answers, can be entered. After your session ends, you can wipe your Answer Garden responses and re-use it for another class.

Pros/cons

Answer Garden is free, and there are no advanced features locked behind a paywall. You can have an unlimited number of Answer Gardens and respondents. Its four modes provide helpful options for different groups and situations. In both classroom and brainstorming mode, a student can enter multiple responses. However, in brainstorming mode they can enter the same answer multiple times. Locked mode is good if you want to set up your Answer Garden ahead of time and then release it to others when ready. Moderator mode, which requires you to set a password, allows you to display only those answers you think are appropriate. A downside of Answer Garden is the vanilla graphics. However, you can export your Answer Garden to Wordle.

Conclusion

Incorporating technology into the classroom is not the magical solution to all student learning, and student learning should always be the goal of information literacy instruction. According to a recent study by the EDUCAUSE Center for Analysis and Research, students would like their instructors to use more technology in the classroom.[4] Apps by nature promote active engagement and, as teachers, we know active learning gets students both doing and thinking. So why not try something new in your classroom and surprise your students by telling them to take out their cell phones and get ready for class.

Notes

1. "Mobile Fact Sheet," Pew Research Center, last modified February 5, 2018, www. pewinternet.org/fact-sheet/mobile.

2. J. Jiang, "Millennials stand out for their technology use, but older generations also embrace digital life," last modified May 2, 2018, www.pewresearch.org /fact-tank/2018/05/02/millennials-stand-out -for-their-technology-use-but-older -generations-also-embrace-digital-life/.

3. Andrew Perrin and Jingjing Jiang, "About a quarter of U.S. adults say they are 'almost constantly' online" last modified March 14, 2018, www.pewresearch.org /fact-tank/2018/03/14/about-a-quarter-of -americans-report-going-online-almost -constantly/.

4. D. Christopher Brooks and Jeffrey Pomerantz, "ECAR study of undergraduate students and information technology, 2017," last modified October 18, 2017, https:// library.educause.edu/resources/2017/10 /ecar-study-of-undergraduate-students-and -information-technology-2017. ✌