40+ resources for teaching with technology

Doug Ward

School of Journalism and Center for Teaching Excellence
University of Kansas

Consider the collection of links and tools below a palette for you and your students to work with. It's a relatively modest list, but it includes sites for organizing classes, collaborating with students or within student groups, visualizing information, and combining elements into various types of multimedia presentations.

My goal in providing the list is to help instructors think about ways to incorporate multimedia elements and technology into their teaching, and to help them use technology to make their teaching more effective. Not all assignments work with multimedia elements, but I've found that these types of tools inspire creativity in students, and make assignments more interesting and more meaningful.

Use of any tool must start with the right pedagogy, though. On their own, digital tools will do nothing, and they can frustrate students and instructors. Their use requires clear goals, and an understanding of what they can and can't do.

You'll find more tools like this on Bloom's Sixth, CTE blog (see below). Nearly are all are free, and some follow Creative Commons licensing. (I have no connection to any of the tools.) You can also search for free or low-cost software at SourceForge and Free Technology for Teachers, and see the most popular digital tools that instructors use in the Top 100 Tools for Learning list.

– Doug Ward (Spring 2017)

Contact
Doug Ward
dbward@ku.edu
Twitter: @kuediting
Bloom's Sixth, the CTE blog:
http://www.cteblog.ku.edu/

1. Organization, planning, and grading

a. **OneNote**. Great for keeping notes, handouts, ideas, and about anything else. Allows recording directly to a page, and allows embedding of videos. Notebooks are easily shared, and apps are available for about any device. (I also use **Evernote** extensively, mostly for full articles and PDFs I've saved from online sites, journals, and other sources.)
b. **WorkFlowy** (https://workflowy.com/). An organization and collaboration tool for creating lists and outlines. I find it especially useful for organizing class material and sharing resources with other instructors.
c. **iAnnotate**. My core app for grading. It allows handwriting and voice comments on PDFs. Documents can be saved to Dropbox, OneDrive, or Google Drive, and can be emailed directly to students. Available for both iOS and Android. Other good options: **GoodReader, PDF Expert** and **Notability**.
d. **TeacherKit**. Tablet app that allows you to add students' names, photos, and other information. It has many functions, but I use it mostly for attendance, largely because it allows icons with student photos to be clustered into groups. Available for both iOS and Android. A free companion app, **Student Callout**, randomly selects student names.
e. **RocketBook** (https://getrocketbook.com/). This is a physical notebook that allows you to take notes in pen. Then with RocketBook app, you photograph the pages and send them to Evernote, OneNote, Google Drive and other locations. Once you have filled the notebook, you microwave it (yes, microwaving clears the pages), and use it again. It costs about $25, but it can be used several times.

2. Multimedia tools

a. **Sway** (https://sway.com/). Easy-to-use tool for combining text, photos, and video in an engaging package. Results are easily embedded on Blackboard and on websites.
b. **Explain Everything**. Easily the best and most intuitive app I've found for creating instructional videos. Available for both iOS and Android.
c. **Office Mix** (https://mix.office.com/en-us/Home). A free PowerPoint add-in that allows you to create interactive videos.
d. **Adobe Spark** (https://spark.adobe.com/about/). Similar to Sway.
e. **ThingLink** (www.thinglink.com/). Allows you to upload photos and place icons on them that pop up with text, other photos and video.
f. **Storify** (https://storify.com/). An easy-to-use tool for creating stories from many types of social media.

3. Communication and collaboration tools

a. **Slack** (https://slack.com/). Messaging tool for teams that allows creation of multiple discussion areas. Allows sharing of documents and multimedia. Its desktop notifications and mobile apps work really well.
b. **GroupMe** (https://groupme.com/en-US/). A great mobile app for group messaging.
c. **Remind** (https://remind.com/). Allows instructors to send text messages to students without gathering their phone numbers. Great for reminders of assignments and changes in class schedules.
d. **CATME** (http://info.catme.org/). An excellent tool for creating groups. Instructors use information from a student survey to create groups based on demographics, skill level, availability outside of class and other elements. It also provides a peer evaluation tool for group members.
e. **Trello** (https://trello.com/). Allows creation of a series of cards that you organize on an online board. Popular for project management.

f. **Popplet** (http://popplet.com/). Online tool for creating individual or group concept maps. Allows use of text, images, video, and hand-drawn material.
g. **Piazza** (https://piazza.com/). Online Q&A site that allows instructors to create discussion sections for their classes. Students can post questions, and instructors or other students can answer. They can also post images or videos. Has option for polling and creating wiki-style answers. It's FERPA compliant.
h. **Realtime Board** (https://realtimeboard.com/). An endless online whiteboard that allows embedding and organizing of documents, videos, images, and other types of materials. Also has a communication function.
i. **Annotation Studio** (http://www.annotationstudio.org/). A collection of tools for annotating documents online. Developed by MIT.
j. **Document Cloud** (www.documentcloud.org/home). Upload documents to the website, analyze them, highlight them and annotate them. You can also create a slideshow-like form that can be embedded elsewhere.

4. In-class polling

a. **Sli.do** (https://www.sli.do/home). Polling site that works with any device. You create questions for a class, or what Slido calls an event, and the site generates a code that you give to participants to join the discussion. You can set up multiple choice, true-false, and similar sorts of questions, or allow participants to submit text answers. A free account allows an unlimited number of participants, but responses are available for only a short time.
b. **Polleverywhere** (www.polleverywhere.com/). Works much like Slido except that a free account allows only 40 participants at a time. The site saves your responses indefinitely, though.
c. **Plickers** (https://plickers.com/). An in-class polling system that uses encoded cards that students hold up with a-b-c-d answers. The instructor uses a smartphone camera to record responses through the Plickers app. Aggregate responses can then be displayed on screen.

5. Visualization tools

a. **TimeToast** (http://www.timetoast.com/). For creating online timelines.
b. **Word Clouds: Wordle** (http://www.wordle.net). Insert text and create customizable word clouds.
c. **Tableau Public** (https://public.tableau.com/s/). Powerful tool for creating charts, graphs, and maps. Free download.
d. **Chart Gizmo** (http://chartgizmo.com/) A free website that allows registered users to create basic charts and graphs.
e. **Cacoo** (http://cacoo.com/) Allows you to create and share diagrams, which can be linked, embedded or saved as .png files. More options available with a paid account.
f. **Piktochart** (http://piktochart.com/). Allows you to create infographics with templates and a palate of tools. A discounted education account provides extended functionality.
g. **Easelly** (http://www.easel.ly/). Like Piktochart, allows you to create infographics with templates and a palate of tools.

6. Maps

a. **MyMaps from Google** (https://www.google.com/maps/d/home). Allows customization of Google Maps.
b. **Google Fusion Tables** (http://bit.ly/1m1ni3d). Powerful tool for creating maps, charts and graphs. It isn't difficult to use, but they it does take time to learn.
c. **Community Walk** (http://communitywalk.com/) Based on Google Maps, with some added features.
d. **MapFab** (www.mapfab.com/editor/new). A useful editor for Google Maps.

7. Screen recording and screen capture

a. **Camtasia Studio** (www.techsmith.com/camtasia.html). A popular screen recording program for creating online class material. It takes some time to learn, but it's worth exploring if you plan to create material for online or

hybrid courses. It costs about $170 with an education discount.

b. **Jing** (www.techsmith.com/jing.html). Screen capture tool for still images or screen recording (up to five minutes).
c. **SnagIt** (https://www.techsmith.com/snagit.html). An excellent program for taking, editing, and managing screenshots. It will also record video. It costs about $40 with an education discount.
d. **DuckLink** (www.ducklink.com/) and **Snip** (https://mix.office.com/en-us/snip?previewvrg) Free tools that offer some of the same features as SnagIt.