# Ten Essential Online Tools and Resources for Introducing Blended Learning in Higher Education Courses

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**Abstract:** This practitioner-focused paper discusses ten essential online tools and resources for faculty interested in integrating blended learning into the higher education classroom. The tools briefly detailed are those that can be used outside of a traditional LMS system and used as a complement to out of class instruction to add interaction and collaboration to course content. In addition to these tools, this presentation will present several valuable online resources with tips, templates, and information for those beginning to implement blended learning into their classrooms.

## Introduction

Graham (2006) defined blended learning as a system that combines "face-to-face instruction with computer-mediated instruction" (p. 5), and most definitions since have been similar. The Blended Learning Toolkit (n.d.) defines it as, "Blended courses (also known as hybrid or mixed-mode courses) are classes where a portion of the traditional face-to-face instruction is replaced by web-based online learning."

The Clayton Christensen Institute (n.d.) defines it as:

1. at least in part through online learning, with some element of student control over time, place, path, and/or pace;

2. at least in part in a supervised brick-and-mortar location away from home;

3. and the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience.

With the rise of learning management systems in higher education, however, almost any course that goes beyond simply offering the syllabus online could be made to fit these definitions, and most institutions have a minimum percentage of online or on-ground sessions in their definition of a blended or hybrid course. For example, the authors' institution uses the state's definition of a hybrid/blended course: "A course in which a majority (more than 50 percent but less than 85 percent), of the planned instruction occurs when the students and instructor(s) are not in the same place" (Texas Higher Education Coordinating Board, n.d.). Although this type of definition, which is not uncommon but which preferences online instruction, seems to be changing as the latest definition from the Online Learning Consortium make a distinction between "blended classroom courses" and "blended online courses" (Online Learning Consortium, 2015). Perhaps the older Sloan Consortium (the former name of the Online Learning Consortium) definition of "a course where 30-70% of the instruction is delivered online" (citation no longer online, as cited in Kostolányová, Jurickova, Šimonová, & Poulová, 2015) is the most useful guideline.

Even with all these definitions, though, online and computer-mediated components of higher-education courses continues to grow in other ways. For example, a recent survey showed that 55% of higher education faculty considered some or all of their classes "flipped" even if their university's considered them traditional on-ground

classes (Schaffhauser & Kelly, 2016). The same survey showed that 75% of these respondents considered all or some of their courses "hybrid."

This increased use of online and computer-mediated instruction and resources to higher-education courses means that digital tool selection and use has become very important to many instructors. Of course, most if not all institutions provide a learning management system (LMS) for their faculty to deliver online and hybrid courses, as well as digital resources for any course. However, the needs of faculty are always changing, and the ability of LMSs to keep up with the rest of the internet means that faculty will often look outside their LMS for course tools and resources.

This presentation discusses 10 of these online tools, which the authors have found useful in their online and blended courses. The assumption here is that these will be used alongside a traditional LMS, therefore LMS-standard tools such as discussion forums and grade books are not discussed. All of the tools and resources in this paper are free to use (some with freemium features) and have demonstrated longevity. Also most of these tools also embeddable so they can be place on within your LMS, blog, or wiki for students to view or use.

## 1. Blended Learning Toolkit (https://blended.online.ucf.edu)

The University of Central Florida has created an amazing resource for faculty who wish to implement blended learning into their classrooms: the Blended Learning Toolkit. The site has numerous readings on blended learning, but more importantly, it provides templates and examples to get instructors started with blended learning.

The toolkit consists of the following components:

- Best practices, strategies, models, and course design principles (templates for use to set up a blended learning course including a blended blueprint, syllabus, protocols, mix map, and schedule);
- Two prototype blended course templates in key core general education disciplines: composition and algebra;
- Directions and suggestions for applying the toolkit resources to create original blended courses other than composition and algebra;
- Templates for deciding on assessments, a course integration chart, and additional templates for creating course modules;
- Assessment and data collection protocols, including survey instruments and standards (checklists for assuring course quality); and
- Research and literature references related to blended learning.

For those who want to take a course-oriented approach to integrating blended learning, the materials are also presented as an eight-week self-directed course. Figure 1 shows a Mix Chart created from the templates.
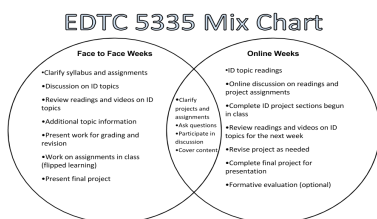
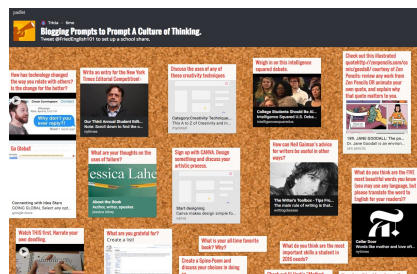

Figure 1 - Mix Chart for EDTC 5335



Figure 2 - Sample of Padlet

## 2. Padlet (https://padlet.com)

Padlet is often called a "digital media corkboard" (see Figure 2) and is an extremely versatile tool with almost unlimited uses. It can be used with any internet-connected device. After clicking on the board and choosing backgrounds and colors, users can add text, hyperlinks, recorded audio, photos, or documents. It can used as a

- Rudimentary real time discussion board in or out of class;
- Place for students to post work whether it be photos, papers, or found websites;
- Location to post curated content for students to explore and add their content.

Setting up a padlet is quick. Students do not need to login, and all that is needed is the URL of the padlet you have created. An instructor can password protect a padlet, if necessary.

### 3. EDpuzzle (https://edpuzzle.com)

EDpuzzle allows instructors to take an online video (from services such as from YouTube, Khan Academy, Learn Zillion, TED, National Geographic) and turn it into an engaging lesson, including quiz-based assessment activities. EdPuzzle allows instructors to:

- Crop the video to use only what is needed for the lesson;
- Record voice narration on top of a video to explain it in a personal way, add clarifications, a warm introduction, or to point out important items;
- Add multiple-choice or short-answer quizzes with the video to assess participation and learning (see Figure 3).

### 4. TED-Ed (http://ed.ted.com)

TED-Ed is another video tool for creating interactive lessons using videos from YouTube (instructor created or someone else's) or TED Talks. Instructors are able to add directions and information, up to 15 open-ended or multiple-choice questions, a discussion forum, and links to additional content. There are thousands of lessons already created which an instructor can reuse and customize to make new lessons. Instructors can choose from a number of menu items for students interaction, such as "Dig Deeper" and "Discuss" (see Figure 4). Answers to questions can be tracked if students sign in.
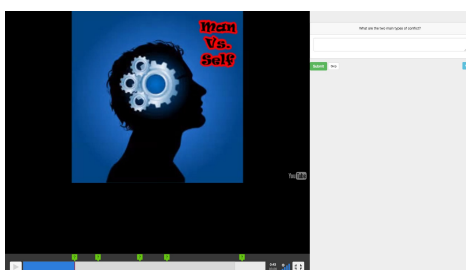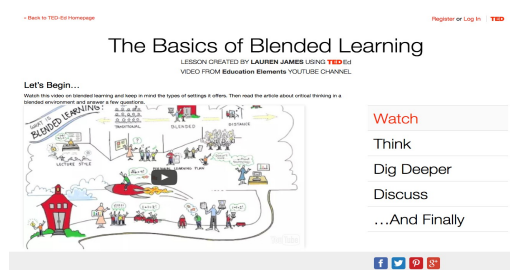


Figure 3: EDpuzzle



Figure 4: TED-Ed Lesson

### 5. SafeShare.TV (https://safeshare.tv)

If you only want students to view instructor-created videos or videos from YouTube or Vimeo, SafeShare.TV (Figure 5) is an excellent way for students to view videos without any distractions or advertisements. An instructor can use SafeShare.TV to:

- Remove ads from the video;
- Edit the start and end positions of the video (great for when students only need to watch 10 minutes of a 60-minute video);
- Hide related videos, comments, and other annoyances;
- Generate a QR code or other social media links.

SafeShare.TV does all this by generating a new, clean page containing the embedded video with a unique URL on their service. It is not complicated, but it is often easier than embedding the video on your own blog or web site. A similar web service to keep an eye on, still in beta testing, is ViewPure (http://viewpure.com).

### 6. TES Teach with Blendspace (https://www.tes.com/lessons)

TES Teach with Blendspace is a multimedia curation tool that provides instructors with a way to combine all types of media into a single space for students. The instructor can insert and sequence YouTube videos, web links, PDFs, PowerPoint and Word documents, images, Dropbox documents, and Google Drive documents (see Figure 6). Instructors can also create discussion items or simple quizzes for select media resources (these features require that students create an account and enter a class code). TES Teach with Blendspace is part of the larger TES website, which also offers a teacher-resource marketplace and the wiki tool, Wikispaces.

As an alternate tool to TES Teach with Blendspace, look at Lessonpaths (http://www.lessonpaths.com/). Very similar to Blendspace, Lessonpaths takes students through a guided tour of curated media called "Learning Playlists" in which the instructor can add links, uploads files including Powerpoints, videos, and pop quizzes. Quizzes are self grading but unlike Blendspace the scores are not recorded so no signin required.
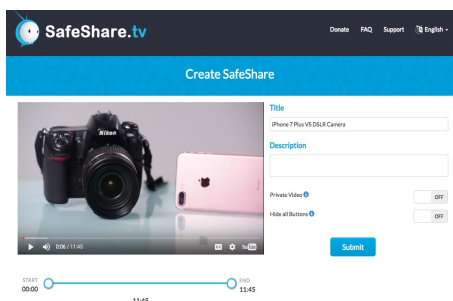
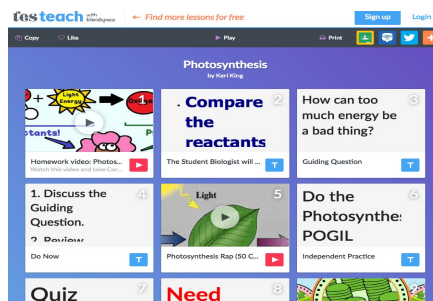Figure 5: Creating a Safeshare video from Youtube

Figure 6: Blendspace

### 7. Screencast-O-Matic (https://screencast-o-matic.com)

Screencasting is an invaluable tool to lead students through assignments and provide guidance for out-of-class activities, and Screencast-O-Matic is one of the better tools out there. Features of this tool are:

- No software to install; just click on record and give permission for the program to use your microphone and webcam. (Note that Java running in a web browser is required for this. Without Java, a separate application can be downloaded.)
- Records up to 15 minutes and save directly to YouTube (or save a file locally).
- Records both screen and webcam for picture-in-picture (webcam only or screen-only options).
- Pro version ($15/year) allows editing, longer videos, and additional video hosts (Vimeo, Google Drive)

There are many alternate applications for screencasting, including Screencastify Chrome plugin, Jing, Nimbus Screen Recorder, Screenr, among others.

### 8. Tackk (https://tackk.com/education)

Tackk is a simple way to create a one-page web presence to post content, articles, videos, and assignments for students. Many instructors find Tackk an easy way to create single-page instructional modules on a topic for out-of-classroom assignments and readings. Some of the benefits of Tackk are:

- Allows the quick creation of websites focused on one topic that can include a collection of multimedia resources showcased in a linear narrative.

- Make it easy to incorporate media and other web apps from hundreds of different online sources. Tackk can work well for assignments that ask students to share audio and video (see Figure 7).

- The Tackk Stream feature allows multiple users to easily add text and multimedia content in a chat-like interface. Students could use this to collaboratively gather online materials for a group project.

Another similar web application is Smore (https://www.smore.com), although Smore markets itself more as an online newsletter where Tackk sees itself more as a blog-like tool.

### 9. Canva (https://about.canva.com/education)

Canva is a web-based graphic-design tool, so although it is not strictly a learning tool, it is a valuable tool for creating instructional graphics for presentations, infographics, and titles for blog posts or instructional modules. The online app is template driven and lets an instructor choose the type of graphic needed, and then easily modify it using free online graphics or photos, or their own. Figure 8 is a graphic created as the title for one of the courses in our Educational Technology program.
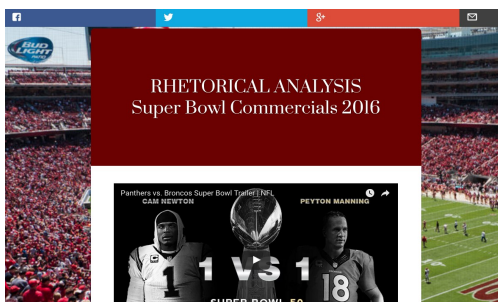

Figure 7: Tackk assignment example


Figure 8: Canva graphic for EDTC 5315

### 10. Google Drive (https://www.google.com/drive)

Last but by no means least, no list of online resources would be complete without mentioning Google Drive, which in many ways has supplanted Microsoft Office as the primary way educators, students, and everyone shares traditional documents. Google Drive allows for both the sharing of instructor-created content and for students to create and collaborate on online assignments. Although there are many applications in Google Drive, the two instructors may find most useful for blended learning are Slides and Docs.

**Google Slides**

The instructor can create slideshows similar to Powerpoint (or upload Powerpoint slides and convert them). After creating the slides (see Figure 9), the instructor can share them by giving students a direct link or using the embed code to insert the slides on a wiki, blog, or webpage. Collaboratively, slides can also be shared for students to edit singularly or create slides collaboratively for a group presentation. As an alternate, Slideshare (http://www.slideshare.net) is a good service for uploading, sharing, and embedding Powerpoint file, although it does not allow online editing.

**Google Docs**

Google Docs is a collaborative online document creation application which has unlimited uses in the blended learning environment. Docs can used to give students any content in a digital format such as papers, handouts. It can also be used by the instructor for all class materials such as syllabi, readings, and instructional modules. The

instructor can create templates for student use such as assignments with guided questions, worksheets, reports, project frameworks, group work, and so on. Figure 10 illustrates a template created for a student project on BYOD. Students can also be given editing rights to shared documents, so they can collaborate on group documents by adding or editing content. The app also supports commenting so students can discuss changes or ideas to the document.
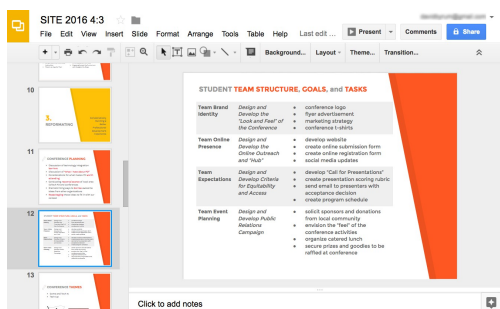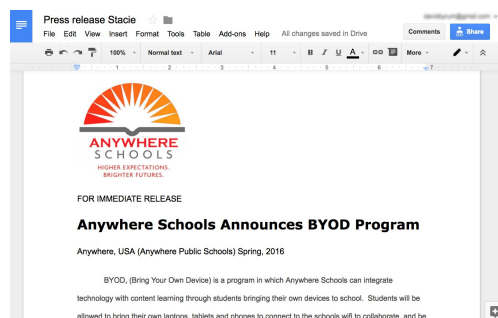


Figure 9: Google slides



Figure 10: Google Docs template

## Conclusion

This paper detailed various tools that should prove useful for higher-education faculty implementing blended learning in their courses. All of these tools, which are just a sample of those available online, could be used in addition to the standard institution-provided LMS.

The current state of online and blended learning leans toward multimedia and video-based presentation, and many of these tools are video-based tools (Screencast-O-Matic, EDpuzzle, Ted-ED, SafeShare.TV) or allow the embedding and sharing of video-based resources (TES Teach with Blendspace, Tackk). Additionally, and perhaps obviously, all of these tools could be used for online courses as well. However, a few (Padlet, TES Teach with Blendspace, Tackk, Google Drive especially the Slide component) work especially well for both an online and a classroom-based learning environment, allowing an easy transition from on-ground learning to online learning from week to week as the course progresses through its blended design. These dual-use tools are probably the best examples of blended-learning tools, but all should prove useful as faculty transition to a blended environment.

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