

Web Applications that Promote Learning Communities in Today's Online Classrooms

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May 15, 2015

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Abstract

The changing online learning environment requires that instructors depend less on the standard tools built into most educational learning platforms and turn their focus to use of OERs and free or low-cost commercial applications. These applications permit new and more efficient ways to build online learning communities and support recommended best practices by facilitating student dialogues with their instructors, other students, and online resources. Effective online communication and community building begins with synchronous, face-to-face interaction between instructor and student. When such applications are not available on a learning platform, they can be accessed through free or inexpensive web-conferencing tools. Students' interaction with each other fosters academic and social support and participation, and can be achieved with collaborative tools like shared brainstorming apps, blogs, and social media platforms. Students tend to prefer online resources, and many of these resources are convenient, easy to use, and allow a variety of activities that enhance learning outcomes.

Web Applications that Promote Learning Communities in Today's Online Classrooms

Technology-based learning (TBL), also called E-learning, refers to learning by means of one of many conduits—computing devices, digital media tools, programming tools, and associated software—that enable study. According to Koller, Harvey, and Magnotta (n.d.), E-learning facilitates a new way of learning at a time when changes in technology have influenced the demands made on educators and workers. It appears at a confluence of two trends: one is the accelerated rate of on-the-job “training and retraining” that the modern workforce requires, the other the shift to the internet as an interactive medium—“where [users] can create and modify content and where content creation and distribution is shared”—as opposed to merely a broadcasting mode (Koller et al., n.d.). Given this changing environment, the tools built into many online educational platforms are no longer sufficient, and instructors must take full advantage of the variety of Open Educational Resources (OERs) and free or low-cost commercial applications available to engage online students, and to keep learning relevant.

Student motivation in online classrooms is “complex, multifaceted, and sensitive to situational conditions” (Hartnett, St. George, & Dron, 2011), but, for many students, maintaining interest in a course requires interaction with their instructors and classmates. Without discussion and collaboration with others in the course, students’ attention may wander, their motivation can fade (Roper, 2007), and the anonymity of the setting can make it easier for students to “withdraw, participate minimally, or completely disappear from the course” (Cull, Reed, & Kirk, 2010). To help counteract the lack of direct physical contact and encourage participation, instructors can develop course communities and engaging activities using the many applications that today’s web has to offer.

In her article, “Ten Best Practices for Teaching Online: Quick Guide for New Online Faculty,” Boettcher (2013) discusses the need to develop online course communities, in part by designing the curriculum with “a balanced set of dialogues”: that is, promoting roughly equal connections between instructor and student, students and each other, and students and resources. The following comments on these dialogues and provides examples of some of the many applications available for achieving such connections.

Instructor and Student

One of the instructor’s most important tasks in building an online community is to “maintain a classroom presence” (Boettcher, 2013). High visibility, Boettcher states, is an effective way for instructors to demonstrate they care about students and their questions, helps to ensure that students stay connected and up to date. Logging into the classroom often and responding to queries provides students with a sense of social and academic support. Moreover, doing so allows instructors to provide quick feedback, a practice that is especially important in online classrooms where students may be struggling with technology issues as well as content. Timely and constructive feedback increases the potential for participation (McDowell, Trunzo, & Vincent, 2015) and contributes to the learning process.

While much of the communication between instructor and student can be conducted asynchronously with tools already built into the learning platform, like online announcements, calendars, and questions for the instructor forums, the most effective collaborations occur with synchronous, visual communication provided by online applications. Without face-to-face contact, “faculty are not able to pick up nonverbal cues from students that can indicate they are disengaged, frustrated or unenthusiastic” (Cull et al., 2010). In addition to the greater range of communication that can take place in face-to-face communication, it is often more expedient:

instructors and students can save a great deal of time communicating in a face-to-face format. Thus, computer applications offer great potential to transform learning and teaching through the synchronous instructor-to-student learning environment. Three popular face-to-face synchronous tools are Blackboard Collaborate, Skype, and GoToMeeting.

Blackboard Collaborate

Collaborate is a web-conferencing tool with a number of features like an audio and video panel, chat window, and interactive whiteboard. Instructors can grant participants the ability to take different actions—like work in groups—and see what participants are doing (chatting, working on the whiteboard, etc.) using the moderator awareness function. Students can join on any mobile device.

Skype

Skype is a popular software application that allows users to video conference with individuals or groups as well as make voice calls, chat, and send instant messages. Though there are plans with low monthly rates, the basic application is free and relatively easy to use. Many students will already be familiar with Skype, and if the instructor's online platform does not have video chat tools, Skype is a good option.

GoToMeeting

GoToMeeting is an easy-to-use web-hosted service that allows personalized meeting rooms with screen sharing, HD video, and VoIP and phone audio. Users can record sessions. The basic service costs \$39 a month and hosts up to 25 participants. The advanced version, at \$56 a month, has the same features but allows up to 100 participants.

Student and Student

Interaction with the instructor offers a sense of social and academic support, but student-to-student interactions have a number of other positive effects on learning as well. Interaction with classmates encourages students to participate in the learning process, a behavior that enhances retention and development (Benek-Riveria & Matthews, 2004, cited in Smart & Cappel, 2006).

According to Tucker (2013), students can learn effectively through online discussion, and McDowell et al. (2015), maintains that class discussion is one of the best ways to develop students' analytical skills in humanities and social science courses. Moreover, because it is a form of active learning, class discussions are one form of active learning, which has been found to result in positive learning outcomes (Watkins, 2005, cited in Smart & Cappel, 2006). Student-to-student interaction can be incorporated in a variety of ways for a variety of purposes. Many tools for synchronous student-to-student interaction—like live meeting centers, chat rooms, audio e-mail, webcam capabilities, and instant messaging already exist on some learning platforms. Other tools that foster student interaction include the following:

Mindmeister

This application is an easy-to-use brainstorming tool that allows users to create maps (mind-mapping) and share them or collaborate with others in real-time. The program automatically archives maps and allows users to update and edit them. This software is accessible via computer, iPad, iPhone, or Android device. The Basic plan is free and allows users to create up to three mindmaps. Other plans start at \$36 for three months.

Edublogs

Edublogs is an educational blogging service that allows students and teachers to share materials, download links, and publish their work. It can also host forums and threaded discussions. The free version allows users to write posts and create pages; the advanced versions provide custom domains, allow embedded videos and plug-ins, keep track of visitor statistics, and provide email support. Edublogs is accessible via tablets and phones.

ClusterFlunk

Specifically for students, this social media platform allows users to sign up with their institution's emails and input their course schedules. Students can post questions or tips, comment on posts, upload/download files, and save and share documents.

Yugma

Yugma is a web-conferencing tool that allows real-time collaboration on documents and a shared desktop. It is available for Windows, Mac, or Linux. The free version is restricted to one to one desktop sharing with annotation and whiteboard tools: advanced versions have many additional features like built-in audio and video, and web conferencing for up to 500 attendees. Yugma also offers a Skype edition that allows Skype users to web-conference with each other.

Student and Resource

College students are heavy users of the Internet (Jones & Madden, 2002, cited in Purdy, 2012), and, therefore, are more likely to make use of convenient, easily accessible resources. For this reason, explains Boettcher (2013), instructors should use content that is mobile and easily accessed via computer, smartphone, iPad, and other similar tools. Easy accessibility allows students to work from any location, at any time. Not only are electronic resources convenient, but there are many academic tools and apps that can effectively engage students and help them

understand concepts in innovative ways. For instance, students need no longer necessarily retrieve a printed dictionary: in addition to the numerous online dictionaries available, there are apps like Visuwords, an online graphical dictionary that allows students to see a word's associations with other terms and concepts. While there are apps for many types of activities, the following are effective and user-friendly:

Visuwords

This open-source online visual dictionary and thesaurus allows users to connect words graphically by using sets of synonyms with color-coded links that indicate a term's association with other words.

Audacity

Audacity is a free, highly rated multi-track audio editor and recorder. Audacity allows users to record live audio; convert tapes into digital recordings; copy, cut, splice or mix sounds; and change sound effects. This application is available for Windows, Mac, and Linux.

Picasa

Students can use this software to organize, edit and email digital images. Editing functions include cropping, straightening, retouching, and adding text. Users can apply different effects including sepia, black and white, tint, and saturate the color. Facial recognition software can allow users to add name tags to people pictured in their albums. Picasa is available for Windows and Mac.

Penzu

Penzu hosts customizable online personal journals and online diaries. In the basic program, users can create, format, save, and email entries. Photos can be added as well. The

advanced version (at \$19.99 a year) has additional features like themes, tagging, customizable backgrounds, and better security.

Poll Everywhere

Users can ask questions and create different types of polls (multiple choice, free response, true or false, clickable images, Q & A brainstorm poll). They can then select voting options (text or web) and others can submit their answers. Poll Everywhere allows for real-time results that enhance the learning experience, and polls can be presented in PowerPoint presentations or on a web page. There is a free Higher-Ed plan. Other educational plans have additional features and start at \$14 a year for students and \$349 a semester for instructors.

21st Century Information Fluency Online Citation Wizards

Students can pick a style and medium, and fill in the blanks to create citations in CSE (CBE), MLA, APA, Chicago, and Harvard. These wizards are free.

Citation Machine

Citation Machine is a free program that generates citations in MLA, APA, Chicago and Turabian styles. Users pick the style, select the medium and search for the source using author, title, ISBN, URL, or keyword (depending on the type of source), and edit the information to create the citation. The site also offers EssayCheck, a program that scores essays and provides feedback, and a title page generator, which students can use to create title pages in the correct format.

BibMe

This is another free bibliography generator that automatically fills in information. It functions similarly to Citation Machine, but has more efficient auto-fill features. Like the Citation Machine site, it also offers EssayCheck and a title page generator.

Conclusion

The development of technology and the shift to the internet as an interactive media have influenced how online classrooms function. This changing educational online environment requires instructors to rely less on the standard tools built into most learning platforms and look to the rapidly accumulating number of OERs and commercial applications, many of which can be appended to more progressive online learning platforms like Canvas. These applications permit new and more efficient ways to build online learning communities and support recommended best practices as outlined by Boettcher (2013) by encouraging student dialogues with their instructors, other students, and online resources. While successfully integrating OERs and applications into a curriculum can take preparation and research, their use fosters constructive learning and collaboration, and alleviates some of the important challenges presented by online classrooms.

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