

Comparing Three Learning Management Systems

Introduction

Blackboard, Canvas, D2L Brightspace all play an important role in educational technology. Each LMS offers a unique set of features and capabilities. Blackboard is known for being a comprehensive Learning Management System (LMS) that does an excellent job with course management and assessments. It provides a robust set of tools for instructors to organize and manage course content, customize learning environments, and streamline administrative tasks. All learning management systems have the ability to integrate with other educational technologies and its focus on accessibility further enhances its appeal, ensuring that it meets the needs of both educators and students in a dynamic learning environment. Canvas encourages collaboration with its use of integrative tools. It is also known for its user-friendly interface. The platform's use of multimedia elements helps offer an enriched learning experience. The multimedia integration allows instructors to embed videos, interactive tools, and other resources to help foster an enriching learning environment. D2L Brightspace distinguishes itself on personalized learning and data analytics. The learning management system makes learning more personalized for each student. It can change the learning path based on how a student is doing, giving them a custom experience. Teachers can use its powerful tools to see how students are performing and engaging in real-time, which helps them adjust their teaching to fit each student's needs. Together, these LMS platforms—Canvas, Blackboard, and D2L Brightspace—offer flexible and effective tools for many educational needs. Each one focuses on different strengths and teaching styles, making them suitable for a variety of educational approaches and goals.

Teaching and Learning

Overview:

The learning management systems Blackboard, Canvas, and D2L Brightspace have many features that help aid in asynchronous and synchronous communication and interactive tools that help aid in learning as well. Some examples of asynchronous communication tools that could fall under the Teaching and Learning category are email and course messages. A synchronous communication tool under this category includes a text based chat. Asynchronous interactive tools include text based and audio/video based discussion boards and a synchronous interactive tool seen within this subcategory is web conferencing tools. Synchronous tools and communications have to be run within real time and more often than not the meeting or communication is done at the scheduled time. Asynchronous communication and interactions are more relaxed. Students can access the tools during different hours and from different locations. There were many similarities between all three learning management systems. The three learning management systems that were looked at were Blackboard, Canvas, and D2L brightspace. All three LMSs all had the following tools: text & audio/video discussion boards, text based chats, and web conferencing tools. Some examples of asynchronous communication tools are email and course messages.

Course messaging/ Email:

It seems as though canvas and Blackboard have a messaging feature that they qualify as an email and course messaging tool put together. While D2L has a messaging feature and separate email feature. I think this should be changed with all LMSs. In Canvas this feature can be very unorganized and messy. All messages are grouped together and not separated by class. There is a search option included though I feel as though there should be other features included to organize it better. One recommendation would be to have the message tool embedded in each class. Blackboard has the messages separated by course. When there is a new message, whether opened or unopened, you are alerted multiple times through the mobile device app. Sometimes the alerts can be delayed and it is hard to read them from the notification bar on the device. This could possibly be a bug issue that could be fixed for future use. The email tool in D2L is hidden. It is useful but this could create user interface problems.

Discussion Board (text & audio):

All discussion board features (text and audio/video) are embedded with the discussion board section of the LMS. The original post or replies can be made and have those features included in both. There are buttons when creating the post to include a hyperlink or embed the video or audio clip. This feature is easy to use. The regular text feature discussion board tool. I believe that Blackboard has the most user friendly discussion board function. There is a feature where you can see how many posts you have made and how many replies you have posted. Clicking on this feature will showcase and highlight only your posts and replies. Canvas' discussion board posts can be found out of chronically order. I would say that they have the least organized tool. Within all LMSs, the instructor can decide when posts are made visible.

Web conferencing:

All three LMSs have the web conferencing tool. They also all have the text based chat feature which is used live when using the conferencing tool. All are user friendly and have the same basic functions. When using the conferencing tool in Canvas, if you are not the presenter, then you only have the basic functions such as turning your camera on and off and muting. While this may work and be beneficial to someone who does not have much experience with learning management systems, it is very limited when the user gains experience or the user is already experienced. I think it was nice for D2L to incorporate the Microsoft teams conferencing feature within the course. Unfortunately, none of the video conferences will show up on the course calendar. A dial-in feature is also included. Blackboard only has the embedded video conferencing tool in the Blackboard Collaborate Ultra feature. Other features of Blackboard do not have this tool. This is a tool that should be included and within all versions. The feature is user friendly and could be widely used especially with the rise of online learning environments. An embedded tool such as this one could be more beneficial as opposed to using Zoom. which is a separate application. It saves storage space and time.

Analytics

Course and User Activity Reports:

The learning management systems Blackboard, Canvas, and D2L Brightspace all share a similar feature of helping organizations monitor student course activity. There is a large comparison in how each learning management system's features are presented, some are general and others are very specific and provide a lot of detail. For example, the Data for any report generated in Blackboard except for activity reports automatically refreshes every 4 hours. Organizations have the option to manually refresh the data as needed. Blackboard allows you to view course and user activity through the course report, you can review data to determine which course areas are most frequently used for any student. To narrow this data down Blackboard's *course activity overview* function can single out a student's activity within a specific course by date. This data will include the total and average time spent per active student and the total amount and type of activity the student engaged in during the course. Canvas course and user activity reports are much more limited compared to the other learning management systems, instructors can see when a student visits a page or participates in the course. Much like Blackboard, D2L Brightspace data is presented in more in-depth reports. For example, a popular Brightspace feature is the *system access*, which shows the number of days since the user last accessed the system.

Grade Reports:

D2L Brightspace offers course enrollment and user activity reports, however, lacks grade reports. Canvas grade reports show data that can reflect a steady average or fluctuations throughout a course. Both Blackboard and Canvas grade reports and usage reports are distributed using a box and whisker plot.

Usage Reports/Retention Reports/ Performance Dashboards:

All of the learning management systems provide helpful usage reports such as managing and reviewing what content or modules have been opened, what assignments have been submitted late, and how many times content has been accessed. Blackboard, Canvas, and Brightspace all offer specific retention reports to organizations and can be used to determine which students are at risk and may need additional assistance in an area of the course. Blackboard allows organizations to create their own guidelines in addition to default guidelines to determine students at risk based on engagement and participation. Each learning management systems performance dashboard shows all user activity in a course or organization whether a user is enrolled as an instructor or student.

Interface, File Management, and Storage

Blackboard, Canvas, and D2L Brightspace are LMS that share similar features such as interface, file management, and storage. Each platform offers a very user-friendly interface that is easy to navigate, has mobile accessibility features, customizable dashboards, and collaborative tools.

Interface:

Blackboard allows users to customize modules for courses as well as notifications and tasks. Canvas focuses on having a clean and user-friendly interface. This gives students a minimalistic dashboard that allows for easy navigation. D2L Brightspace also has a customizable dashboard. Instructors can customize widgets and tools for courses and notifications.

All three platforms offer a mobile app or mobile web versions that allow users to have on-the-go access. Blackboard offers a mobile app but it may lack features the desktop version has. Canvas has a student app that offers students an easy experience. D2L Brightspace's mobile app gives students the ability to view courses, see deadlines, receive grades, and more. It also gives students a smooth transition to a web browser to complete assignments.

File Management:

Regarding file management all three platforms allow users to create folders and subfolders. All three also allow users to utilize bulk uploading. Users can track changes and revert to previous versions of materials on all three LMSs. Blackboard has a central location for storing and organizing files. Instructors can drag and drop files into the system. Files can be shared to specific groups and users. Canvas also uses the drag-and-drop method to upload files. Files can also be linked or embedded into courses. D2L Brightspace has organized areas for files and course materials. It also gives users the capability to drag and drop files into the interface. Instructors can manage sharing files with students or groups.

Storage:

The storage options on each LMS differ based on a subscription plan but each offers cloud integration. Canvas and D2L Brightspace integrates with Google Drive, OneDrive, and Dropbox. Blackboard integrates with Google Drive and OneDrive. Each LMS's storage limits are controlled by the institution.

While each platform shares many similarities there are a few differences. Blackboard is heavily used for academic purposes and collaboration. On the other hand, Canvas is known for its user-friendly interface. D2L Brightspace focuses on personalizing the learning experience and path for its users. The distinction of each of these platforms helps them to suit the professional needs of its users.

System Maintenance

System maintenance is where commercial learning management systems, like Blackboard and Brightspace D2L, outpace their open-source counterpart, Canvas.

24/7 Technical Support

When a user has a question, Canvas offers searchable guides and an online community. Blackboard and Brightspace have help portals, but also 24/7 Help Desks for students, instructors, and administrators.

Regular Updates

All push regular updates. Canvas relies on its community of developers to decide what upgrades are needed and what the priority of each should be based on community feedback. Blackboard and Brightspace have a team of professionals who drive upgrades.

Downtime from System Updates

A learning management system may need to be taken out of service for a time to update. Canvas and Blackboard have comparable downtimes, usually a few minutes, twice a month, in the middle of the night. Although, they advise to schedule in about four hours of down time for each update. Brightspace has no downtime. It is cloud-based.

LMS-Removal of Outdated Content

Outdated content needs to be removed every so often to free up storage space. Canvas and Blackboard remove courses after five years. Brightspace removes courses after seven years or after four if the course has not been referenced. Instructors and administrators are free to remove courses as needed.

Tools to Find/Resolve Broken Links

All have tools to find and resolve broken links. Blackboard offers Link Checker and Ally. Brightspace provides Broken Link Viewer, and Canvas has Validate Links.

Tools to Monitor System Status

Commercial learning management systems rise above Canvas once again in monitoring system status. Canvas provides a Status page that lists outages longer than 15 minutes. Whereas, Blackboard and Brightspace offer more robust tools. Blackboard has the Services Status page, and an administrator can pull logs. Brightspace offers the System Log tool.

Tools to Archive Courses and Manage Records

Tools are needed to archive courses and manage records. All learning management systems perform well here. Blackboard offers an Import/Export/Copy Components tool; Brightspace has its Data Purge tool and Export/Archive page. Canvas partners with K16 Solutions to provide secure archiving services.

Tools for Debugging

Tools for debugging exist for all and there does not appear to be a discernible difference.

SIS Integration

Each offers good integration with student information systems (SIS).

LMS Training

LMS training is the final feature to examine. Blackboard has Anthology Education Services, which offers virtual and on-campus training. It also has Blackboard Academy and Anthology Academy, which provide on-demand webinars, courses, and cohort-based training. Brightspace conducts in-person, virtual, and on-demand training. They offer a Teaching and Learning

Certificate program. Canvas provides online training, as well as certifications and recertifications. All offer helpful online resources like tutorials, FAQs, and guides.

Summary

Learning management systems are in tight competition with one another and offer users many of the same features. However, they are far from the same and have unique strengths and weaknesses. Each learning management system has features and functions that may appeal to certain organizations based on their student's and instructor's goals and needs. Blackboard is strong in course management and assessments but is hard to navigate. Canvas is user-friendly and great on mobile devices in addition to desktops/pc but may be lacking some advanced features. D2L strengths lie in its ability to create personalized learning paths but could be challenging for new users, or those with a lack of LMS experience, to navigate. In choosing a learning management system, it's important to consider what your school or organization needs and how easy it is to use. Each LMS has its own strengths and weaknesses and understanding those differences helps you pick the best fit for your students, instructors, or organization members.