In our introduction at the beginning of this course Avi told us that this course was going to be about finding structures to help scaffold learning in a manner that fit with our own philosophies of teaching and learning. Through the weeks that followed we explored a number of LMS and non-LMS tools that would help facilitate the delivery of a thorough and comprehensive course that not only met our needs as instructors, but also the needs of our students in that they would provide an engaging and exciting learning experience for the learner. How do I know this? Well, because I had that exact experience in this course.

This course has been all about relevance for me – taking what I've learned and putting it into use. Projects completed were projects that I could transfer right over into my own classroom. My LMS build (insert screen shot here) was a novel study unit that I could easily have my students work on tomorrow. In looking to build a non-LMS collection of tools I was able to showcase tools I would use in the classroom, as well as share some that I already do. Every single aspect of both projects was relevant to my classroom.

It's important to know, when building a course of study online, that LMSs are not meant to simply be recreations of face to face classroom – simply putting your resources onto a virtual platform – but instead this should be the new face of education. LMSs should provide the platform to build new and engaging learning environments that draw their learners in, provide the information that they need and assess their progression of learning along the way.

One of the reasons that I am in the OLTD program is that I believe the traditional classroom setting is soon going to become somewhat of an antiquated experience. As students are taking more of a leadership role in their own educations, institutions are going to need to adapt their delivery to meet the demands of the learner. No longer will we be housed in buildings meant specifically for the delivery of content and information. Classrooms will exist everywhere (if they don't already). Students may choose to learn from the comfort of their own home, attend a meeting at a community center or meet at the local coffee shop for a debate and discussion activity that they have prepared for on their own time. The face of education is changing and, as a teacher, it is my job to keep up with it (if I want to continue to have a job).

So how do I provide an overview of what my classroom would look like in an online environment? How can I prepare for the future in education when that future is hard to outline and describe? Well I can say this – it's going to change a lot and probably constantly, my job is not going to get any easier.

The primary purpose of this website is to outline tools and resources that I would use in my online classroom and identify pros and cons of each. Some of them we've looked at in class, some of them (as evidenced in my non-LMS build) are tools that I already use in my classroom. In each case I've reflected on how and why I would use them, but also the benefits to students as well as myself in integrating them into the classroom. I've split this website into various sections in order to cover off most of the leading questions and hopefully, through the creation of the entire site, I will be able to articulate just how I would use these systems to "help me develop courses where students learn in the best way for

them while providing me with the tools I require for efficient and efficacious presentation, moderation, support and assessment," as our critical question asks.

The specific sections are as follows:

- Theory and design – this is a summary of my beliefs and experiences in online learning and some of my 'must haves' when it comes to designing an effective online course.
- What is an LMS – this is a big one, and is quite comprehensive. In this section I outline what an LMS is, explain how it works, identify some pros and cons of LMSs and provide a few examples for you to peruse.
- Tools and resources – here is where I share some screen shots and information about tools I would use (or do already) in the classroom and for what purpose (this is where all the fun and action is if you just want to skip to that part ☺)
- Summary – this tab is basically a summation of my overall project and plan for building an online learning environment.
- Resources – and finally – just to be a good student, I've taken a moment to cite some resources and tell you exactly where I got my information from.

To be honest, there is quite a bit of information here. In an attempt to follow my beliefs and limit the amount of text that is included here, I'm going to try to make this website as visually pleasing, media rich and engaging as possible. I tend to learn better when I'm not reading pages and pages of text and thinking about the sunshine outside and how nice it would be to refinish the basement (not that it would be nice to refinish the basement, but you know as opposed to reading endless text on a website…). You get my point. On this website, all you have to do is follow step by step through the progression of tabs and watch the videos and go through the activities until you reach the end. Shouldn't take you too long, just a short perusal of my beliefs, my 'go to' tools and my learning progression through 504.

So I invite you to relax with a cup of coffee, enjoy your perusal of my website and, in fact, enjoy your time here so much so that you just can't think of a reason why I should receive anything less than 100%. Because really, that's what I'm aiming for! Enjoy….

Theory and design

- What are some overarching principles you will follow in designing your courses? Based on:
  - Current education research,
  - Your experience,
  - Your collaborations and conversations with your colleagues, and
  - Your values around education

I can only base how I would design a course on my own needs as a learner and teacher and the information that I have read throughout my six months of being involved in online learning. As a teacher I have only ever taught face to face. I have had access to technology in my classroom for the last few years and have found students to be immediately engaged, critical thinkers in terms of working their

way through problems that arise in any situation (from getting logged on to figuring out how to pass a certain challenging level in a game they are playing) and supportive learners (in that they will jump to help another student struggling with an idea or trick that worked for them). I have seen students take their learning farther than I ever could using the textbook because the vast amount of information that is literally at their fingertips is astounding. Now when students ask questions I direct them to look it up when they have a moment – it's not me researching the answer, it's them extending their own learning on a topic that has piqued their interest and therefor has more value for them.

As a learner I know that I need structure: chunked learning units with identifiable beginnings and endings, detailed 'to-do' lists that allow me to ensure I have covered everything, a fluid flow of information that builds upon previous units with no gaps or missing information. Tools and resources need to be appealing to the eye, easily navigable and include images, videos and not just text. They need to be accessible to all learners – whether they learn from reading information, listening to an audio file or watching a video or doing hands on activities. And most importantly, they need to allow for 'teachable moments' and going off on tangents if there is a need to provide additional information, yet stick to a planned structure to keep things moving and ensures that all the necessary content is covered. In short, any course that I take needs to provide for the use of the proper tool for the learning activity, not try to make a learning activity work within the confines of a specific tool.

In using technology in the classroom, I have found that if the resource is overly simplified or, on the other hand, much to challenging or not easy to use, students will easily give up and then the lesson itself is lost. The structure provided by any tool, resource or LMS must provide a 'just right' fit for each individual learner. This could come in the form of alternate activities for students to choose from, the ability to make the text easier or harder depending on reading level, the option to have text on a website read to the student for those who struggle with input issues (or for that matter a voice to text software for those who struggle with output issues).

Alternately, too many options might be too onerous for me to develop and maintain and overwhelming for my students, and so in choosing an LMS I would look for a tool that would allow students to easily access and work within the content in order to hit the learning outcomes that they need to while not requiring me to create the same course for five or more levels of learners in my class.

A further belief – and this is huge – that I have is that communication has to be open, accessible and constant in order to support struggling learners, provide adequate and efficient feedback to all learners and ensure that the entire community of learners is recognized and each student is encouraged to take a leadership role in their own learning. One thing that I have found in doing my own coursework is that at times that I get stuck, lose track or lack motivation, a kind word or gentle prod from my instructor has worked to get me going again. Mastering the balancing act of enough but not too much or too little communication is a skill that will take years to hone and master, but being open to questions, comments or concerns and being fully accessible is the main thing to remember. And keeping tabs on each other on a regular basis is just one of the best practices we will have to work to incorporate in our classes.

The workload provided within the course must be broken down into achievable chunks. Detailed 'to-do' lists have been invaluable to me as a learner throughout my courses and that is because I can easily plan ahead to ensure that I am able to cover off everything that needs to be done. The reality in online learning is that most students are fitting coursework into their already busy lives or taking courses online because of struggles or limitations they are finding in the traditional school setting. Therefore they are not necessarily able to commit to an endless amount of hours every day in completing the coursework. As a teacher, I have to understand that some students may get the majority of their coursework done during traditional school hours, whereas others may have to be finishing coursework on the weekends or late at night to fit it within their schedule. Therefor I need to provide those detailed lists of tasks to be completed by certain dates to allow students to plan and organize their learning to fit into their lives.

Well laid out, engaging and easy to navigate systems is a must. There have been times during my teaching using technology where a website that I wanted to access wouldn't load, a video would play without constantly buffering or a really cool tool that I wanted to introduce to my class couldn't handle the class all trying to log on at once. Not only is this extremely frustrating to deal with, but it also lessens the chance that I will try to use it again. If a website or resource is too hard to use, it's not really worth my time to have to play with it and work around access issues. And the reality is that there are so many different resources that achieve similar ends available on the internet that there is no need for me to stick with one that is glitch when I could easily switch to another one that works when I need it to. Having a website that is step by step laid out and easy to follow also helps the student to understand where to go next and what they have to accomplish in order to finish the course. This has been hugely beneficial to me in most of the course that I've taken in that they have been well laid out, made accessible to me as I finished other components of the group and followed a step by step progression through the course content. And once you've been through a few courses that are very well laid out, you are made drastically aware of the ones that aren't – and they frustrate you to no end!

So I guess we need to look a bit more at what an LMS is and what it isn't. Let's head to our next tab….

What is an LMS?

- What is a Learning Management System?

A learning management system is a system that organizes content and provides a singular place for learners to go to access information, submit assignments, take quizzes, converse with colleagues and generally go through the learning outcomes and goals of a course or unit of study. There are many popular LMSs employed by educational institutions as well as corporations to provide units of studies where student learning can progress and be tracked in order to provide an accurate assessment of their learning throughout the module. Typically divided into units or modules, an LMS can encompass an entire course of study, a short training session or anything in between as suits the needs of the learners using it. Some common features of LMSs can include: launching platforms, communication and collaboration technologies, content management tools, assessment and testing capabilities, 'virtual'

classrooms, reporting tools, accessibility structures (for mobile devices) and a set standard of eLearning support and interoperability. (Don McIntosh's article)

In addition, many Web 2.0 tools provide an alternate to the standard LMS. Communication technologies, collaboration tools and websites that allow you to include course content and have added quizzing, assessment and collaboration tools are popular alternatives to commercial systems available today. With largely unlimited internet access in the world today, the accessibility to these tools allows us, as educators, to incorporate what we need where we need it and provide the best possible education for our students.

The most common LMS platform is Moodle, used extensively in educational institutions as a 'homebase' for many online classes. Universities and public schools make use of this resource to provide courses to students that can either be self-paced, asynchronous courses or structured, synchronous courses that follow a set schedule. Some tools that Moodle includes is the ability to provide content – either in the form of information typed in to the page or via links to websites or resources, embed video or other media for students to access for information and the ability to set up detailed step by step lessons that students work through. The instructor can include assignments and quizzes that are tied directly to a gradebook and include updates and announcements via a calendar and announcement section on the side bar. Activities that instructors can imbed also include chat features (to replicate class discussions), discussion forums (which allow students to discuss questions or topics covered in the content) and wiki's where users can collaborate to create shared collections of knowledge pertaining directly to their course of study. More detailed tools accessible in Moodle are workshops, databases and lessons that allow students to interact more with their peers in their learning and provide input to evidence their learning.

Some struggles I personally had with Moodle were the fact that some file types simply weren't supported. As a platform it is important that the information that you want to provide for your students will work on the platform you have chosen to use. An alternative to this is simply providing a home base outside of the LMS where additional resources can be stored. However, you also have to be aware that students will require a separate username and password for many of the different tools you choose to use, and having too many logins can cause added stress and confusion for your students.

Another struggle with Moodle was the scrolling. Sometimes known as the "", as you add content or activities to Moodle and then return back to the main page, by default it always returns you to the top of the page. For small units of study this is not really a problem as you are working on such a small page anyways, however, the bigger the unit or the more detailed the course of study is, the more frustrating it can be having to move around within the actual module.

Finally, I found Moodle to sometimes 'time out' on me as I was researching content, causing me to lose data when I logged back in. This can be very frustrating and cause people to give up in frustration and find a program that they deem to be more user friendly.

One improvement I would like to see in Moodle would be the ability to drag and drop files as it would make it easier to create a course in that way. If I was planning a course I could have all of my resources in one central file on my computer and, once I got fairly proficient at building pages in Moodle, I could put together a course in a relatively short amount of time. As a teacher, that would make it a more efficient and user friendly product and make my life enormously easier.

One major drawback to Moodle – or any LMS - is the cost. As a user of Moodle in the classroom and in my coursework, I don't have to pay any user fees directly to use this resource. Access to Moodle is free and available to anyone who is capable of using it. The problem with most LMSs are the hidden additional costs like creating a position within the organization that primarily provides support to instructors and end users which becomes a necessity to provide support. Hosting services to store data on local servers can also cost and, depending on the LMS, upgrades and maintenance can also be costs that are incurred and passed on to the user through student fees or tuition costs.

Another common LMS is D2L or Desire to Learn. We have used D2L extensively through our coursework and it shares many of the features available in other LMSs. Structured topics or modules are created here and students can work through each section either at their own pace or as new modules or units are released to the class. Quizzing capabilities, access to information and assignments, grade book services and assignment collection are other tools provided to users. Though my use of D2L has been extensive in my coursework, I have more access to Moodle in my school district and therefore chose to focus on that during this course.

Though Moodle and D2L are some of the most common LMSs in the education world, there are many other options provided to businesses and often created and monitored with their specific needs in mind. For a comprehensive list of these LMSs see Don McIntoshs article Learning Management Vendors.

- What are some LMS and non-LMS services and how do they compare?

Many LMSs are quite similar and provide the same type options in their own platform. In this way they remain competitive and provide expected service levels and options of tools and activity levels. Similar to the Apple vs. Microsoft debate, there are options to create the same types of courses and activities on all platforms. Though the intricate workings of each will be different depending on the system you've chosen, pretty much anything you will be able to do in Moodle you can expect to be able to do in D2L and vice versa.

Areas in which these resources may differ are in the costs associated with each as some might be hosted by a company that wants to make money for their product or in the specific types of activities that you can do using that platform. The alternative or work around for this problem is to make use of non-LMS service alternatives that are readily available on the internet.

A major player in the non-LMS league is Google docs. Google is building an empire and providing all sorts of services to users under the same umbrella. Not quite organized and connected like a true LMS, they provide options for discussions, collaboration and the building and sharing of information through a variety of tools. They have a monopoly on accessing information, too, in the form of Youtube –

arguably one of the most watched websites on the net. They even have a grade book that can be translated into 70 different languages whereas most other grade book options have two – English and Spanish. They are trying to be accessible to a worldwide market and are constantly adding new tools and abilities to their repertoire.

- What components are necessary for a complete LMS?

In order to have a complete LMS you need to have to ability to provide access to content, allow for users to work within content and discuss aspects to do with that content, download, create and upload documents that allow them to evidence their learning and provide assessment tools and tracking systems so that students and teachers are aware of their learning progress.

In the example of Moodle or D2L (which are the two LMSs that I am most familiar with), the LMS would provide a homepage where reading lists, links to content in the form of webpages, videos or text resources, contact information and discussion post questions can be housed. Also available on this site would be a calendar to track important dates, an announcement section where students can learn of important information provided by their instructor, access to a grade book where instructors can post grades and students can access them and access to course documents or support in case students need help navigating their way through the course.

From the homepage students can follow links to activities, webpages (for example a course wiki or survey activity) on which students can complete work, reading materials to supplement learning outcomes and any other resources that the instructor wants to expose their students to.

Once students have completed activities, there needs to be a place where they can upload or dropbox their assignments for the instructor to asses. This would be linked directly to the grade book where students and instructors could track grades.

Also inherent in any LMS is the ability to store content – either in the form of class resources for students to review or in the form of student work. As a way to evidence their learning, students should be collecting their work in an ePortfolio in order to be able to reflect back on their learning process and show evidence of their learning to others.

- What are the pros and cons of using a commercial LMS?

The pros of using a commercial LMS is definitely housing all of your content and information in one place that students get good at navigating and learn to easily work within. It allows users to have one username and password and access all content in that one place.

The drawbacks of relying on one singular LMS is that it can be limiting in the types of files you can use, the sorts of activities that you can provide your students with and the accessibility of your site in the case of upgrades, power outages, server crashes, etc. Putting all of your eggs in one basket is not always the best practice.

Also, there is the cost of implementing, maintaining, providing support for and upgrading the system and that cost has to be paid by someone along the line of users. Also – in terms of housing all of your content in one LMS begs the problem of people who don't have consistent access to the internet. If all activities must be completed online, users will not have the option of working on their course work wherever and whenever they want. We have to be cognizant of the need to allow users to access other programs or complete work as they see fit with the resources they have available to them.

- What are the pros and cons of using an open source LMS?

  tech support on individual systems
  XXXXXXXXXXXXXXXXXXXXXXXXXX

- How flexible are LMSs?

  not very – set look and options for activities, can incorporate a lot and with every upgrade they do more and recognize their limitations, but there are many things that simply can't be embedded into a traditional LMS

- What are the costs (real and implied) for using a LMS (commercial, open source) and non-LMS?

  real – licence, training, support, hosting services, upgrades, development of LMS, user access fees
  implied – providing onsite support, maintaining updates and upgrades, data input over the years, server space

- What criteria should you use when deciding whether an LMS meets the learning needs of students while meeting your teaching needs?
    - What are some attributes of a good LMS?
    - What are some limitations of an LMS?

        XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Tools and resources

- How can you use non-LMS systems or services to build your own LMS?
    - What are the tools you will need?
        - Quizzing?
        - Websites for organization and content delivery (Google sites, Weebly, Blogs, Wix….)?
        - ePortfolio and learning journal (blogs, sites…)?
        - Collaboration (Social book marking, micro-blogging, google drive, sites, discussions)?
        - Presenting/Collaborating?
- …..

- Blackboard Collaborate

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

resource – wiki   link
add pics and pros and cons of each as per my non LMS build (or just imbed my non LMS build with pics….yeah)

- What are some Best Practices for LMS implementations?
XXXXXXXXXXXXXXXXXXXXXX

- How do you develop a unit of study in an LMS?

I wish I still had access to my Moodle build because I think I did a fantastic job of creating a novel study unit there. Basically I started with the end in mind. I looked at what I wanted to be able to do to require students to collaborate and use critical thinking skills in reflecting upon the novel that they had just read and then developed activities and discussion topics around that. I chose some cool multimedia to incorporate into my unit so that students would be engaged and want to do more (hooked), and then outlined how I would go about building it on the site. I jumped in with both feet and started adding resources, quizzes, forums and assignments and went from there.

Though I was new to Moodle, I found it fairly easy to pick up and once I got the hang of things, very easy to build a unit of study there.

Summary

How can Learning Management Systems (LMS and/or non-LMS) help me develop courses where students learn in the best way for them (teacher-structured/personalized), while providing me with the tools I require for efficient and efficacious presentation, moderation, support, and assessment (for, as, and of learning)?

Stephen Downes outlines some characteristics of the 'n-gens', as he calls them, in his blog about eLearning 2.0. (link to the blog here) He notes that they absorb information quickly through the use of pictures, videos, text from multiples sources – all at once. They expect and give instant feedback and responses, prefer random 'on demand' access to media, expect constant communication with friends and create their own media or download it or buy it – however works for them. For the n-gens it's all about sharing information, improving on existing resources and spreading the word through social media and file sharing sites. It's not about ownership. It's not about reading excessive amounts of information. And it's definitely not about sitting in a classroom listening to someone drone on about the parts of a sentence. N-gens want media – videos, audio clips, interactive websites, they want choice – in what they learn and how they learn it, and they want learning when they want it and how they want it. I myself have taught students who struggle to read or write or do basic computations, yet excel at mastering various levels of the latest video game and collaborate with friends to achieve challenges set forth by the creators.

So how do we, as educators, reach this generation of learners? How do we create engaging lessons, share information and assess learning in a way that fits the student but works for the teacher? How do we reach the n-gens and excite them about learning the content that we are required to cover?

The answer is a blended approach. Just as I truly believe that the best approach to teaching is a blend of face to face classroom time with a healthy dose of online experiential learning, I also think that there is no single LMS or tool available that will meet all the needs of students and teachers and so a blended method or approach is necessary to get the most benefit out of the online learning experience. This website was designed to showcase a number of tools that I have come across or been made aware of through my time in the OLTD program and my time teaching and learning in a face to face environment. It also gave me a place to reflect upon my learning, my thoughts about best practices in online learning and how I would lay out a course so that my future students would get the most benefit from participating in the class. I tried to provide justification for each of my choices and outline the pros and cons of each resource – as I see them.

Keep in mind that I haven't actually put many of these tools into practice. As I stated earlier, I am a face to face teacher. I have based these choices of resources on what works for me as a learner in the OLTD program, my experiences using the technology and the internet in the classroom and information that I have read through the course of the last few years. This collection will look different a month from now, a year from now it would likely have no resemblance to what is now on this page. Technology and available resources are evolving so rapidly that what is now the 'flavour of the month' will soon be

relegated to the 'beginner' area or be remembered for what didn't work and so improved upon by its users that the base form is barely there.

Here and now this collection represents the new and the brightest, the most effective tools to communicate, to track progress, to evidence learning, to share information. At this moment this is cutting edge material. Engaging, informative, relevant. Right here and right now these tools would adequately meet my needs as a teacher and the needs of my students in their learning environment. What tomorrow will bring can only be imagined…..

Resources

Stephen Downes – eLearning 2.0

Don McIntosh – Learning Management Vendors