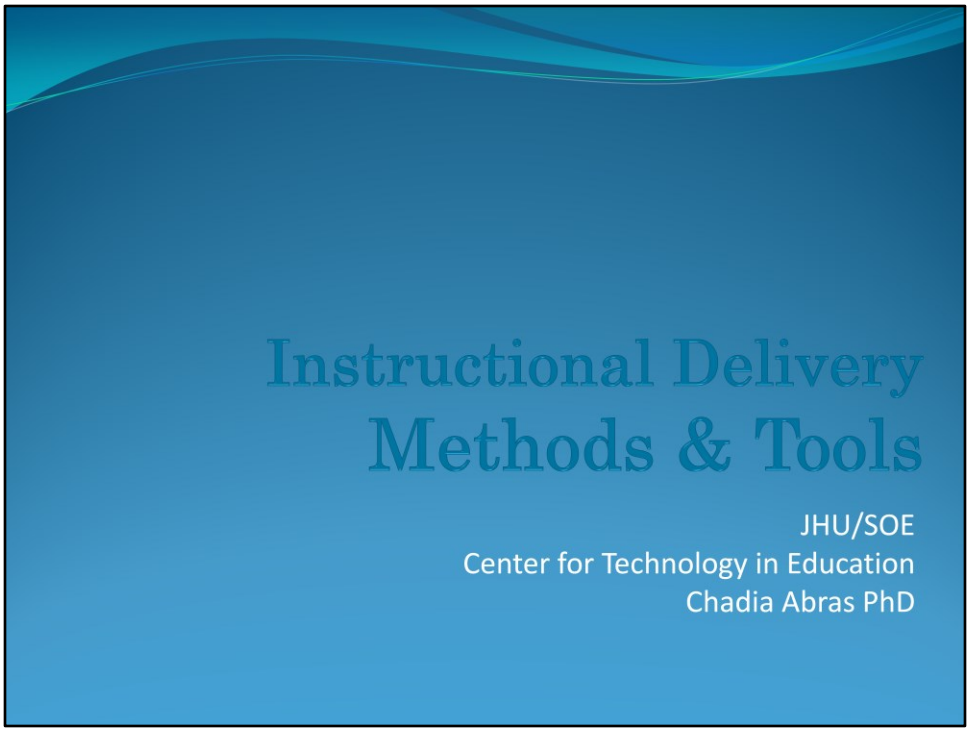
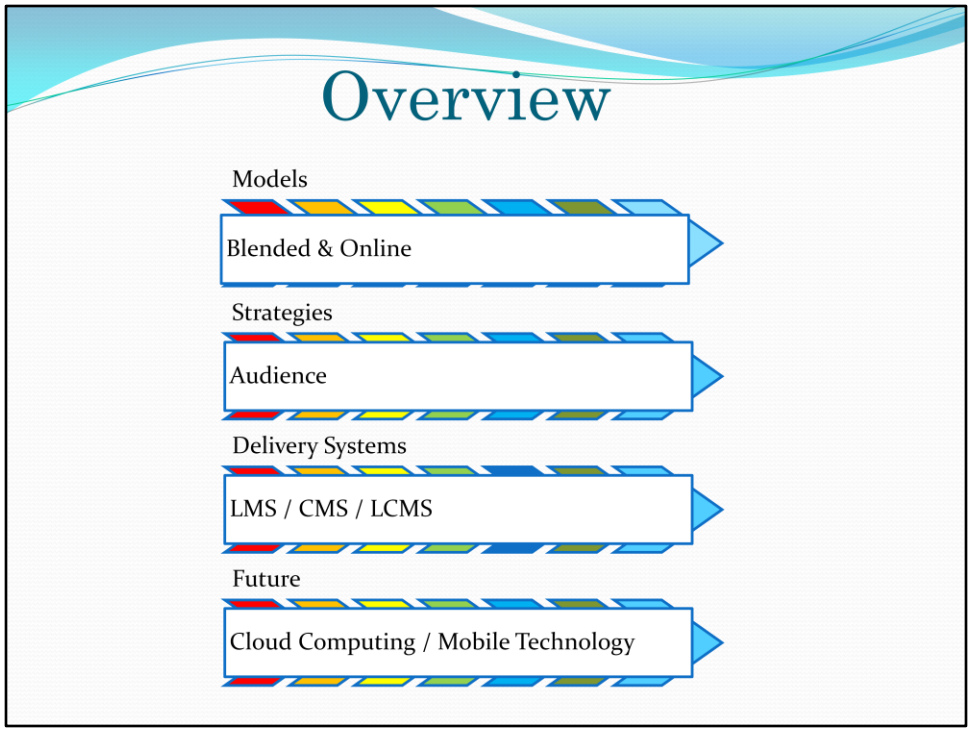
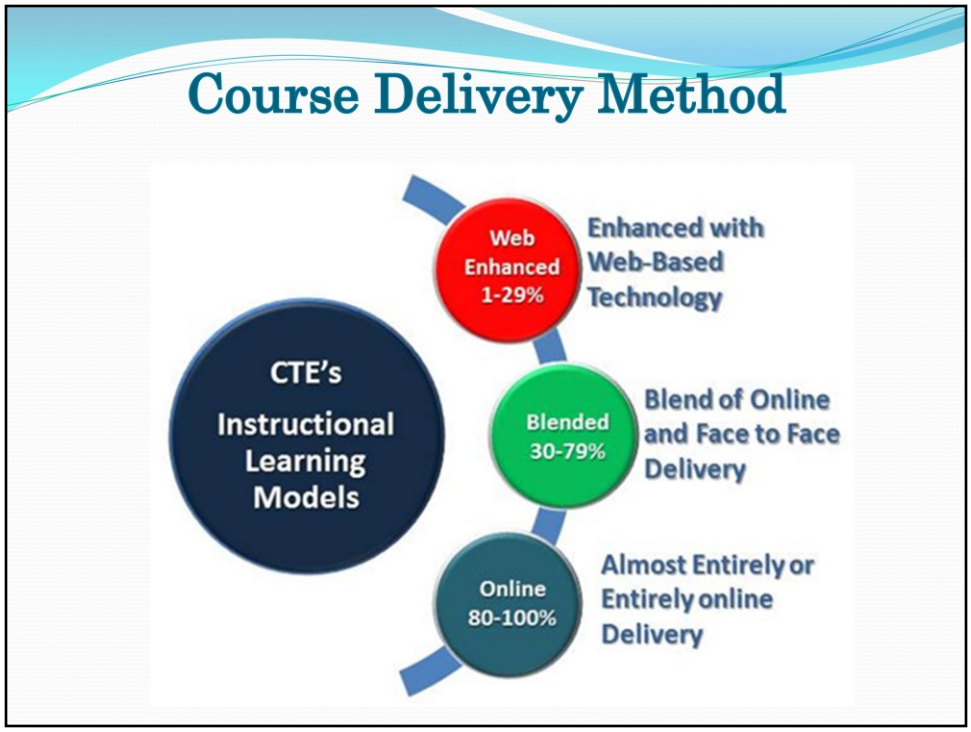


In this presentation we are going to discuss the available delivery methods, their advantages and disadvantages. We will also discuss platforms.



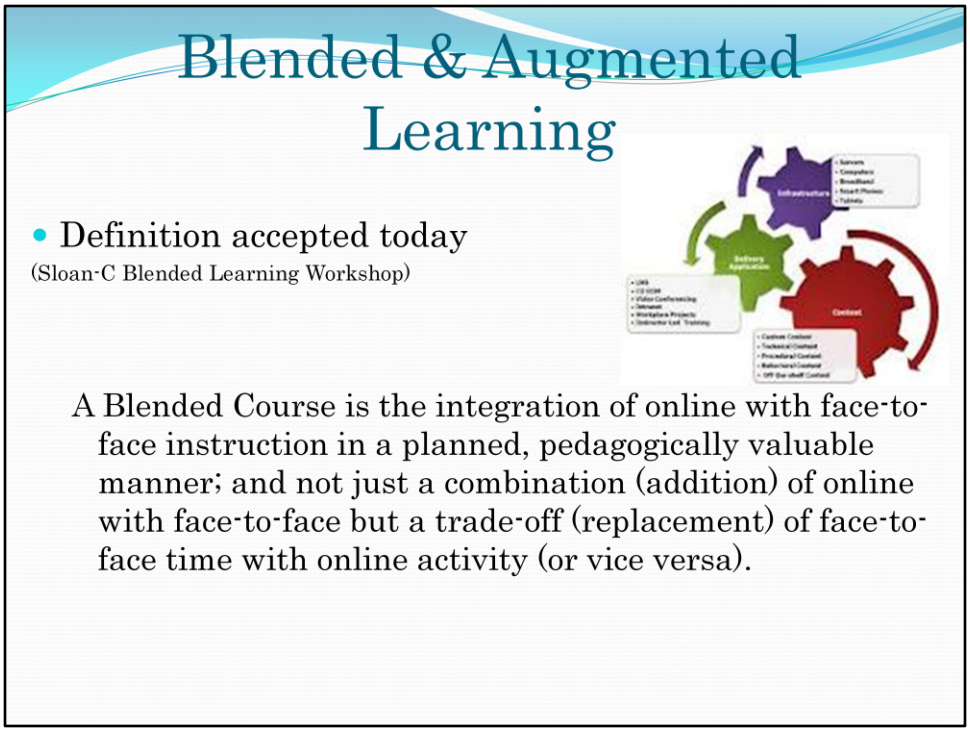
The objectives of this presentation are to first introduce the model of instruction delivery, then consider the audience and strategies that fit their needs. Then we will discuss available platforms, their advantages and availability, last we will discuss future directions and what we need in order to stay ahead of our learners.



The model of course delivery emphasizes the three delivery methods. The first refers to face to face instruction, we refer to it as web-enhanced to stress the fact that in person instruction can benefit from the use of technology without loosing the face to face interaction with your learners. **Web-enhanced** instruction usually uses up to 29% online time with the students, and technology enhancement in the classroom. The idea is to use the online time to deliver lectures, start discussions, allow for reflection, and then use the class time to further discussions and create collaborative and cooperative activities.

Blended learning has a mix of online and face to face instruction, the blend has to be carefully designed to look seamless, the percentage of online vs. face to face is institutionally defined and could vary between 30 and up to 79% online.

The **online** instruction method is usually 100 % online but cannot be any less than 80% for it to be classified as online instruction.

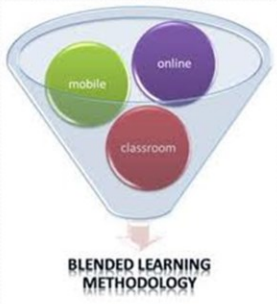


The definition of Blended learning is taken from the Sloan-C established classification. It states that ….

A Blended Course is the integration of online with face-to-face instruction in a planned, pedagogically valuable manner; and not just a combination (addition) of online with face-to-face but a trade-off (replacement) of face-to-face time with online activity (or vice versa).

Why Blend?

- To assist students
  - Access
  - Improve learning
  - Information fluency
- To support faculty
  - Training and development
  - Supplement and improve teaching with technology
- To maximize facilities
  - Recapture classroom space



According to the latest survey results in 2007 from the Sloan-C, blended learning is steadily going up in popularity and seems to be the one preferred method for instruction delivery in private institution. The report is a bit dated, but later research shows that the blend has more appeal with students and faculty who still prefer the face to face interaction. It is not a preferred method in the for-profit educational environment because of cost and revenue effects. The blend helps students with access on days when they cannot come to class, it reduce the commute time to the institution, it helps improve learning by presenting the best of both methods, online and face to face. It adds to the students' information fluency , by presenting them with techniques and methods they would only have seen in the online world.
For faculty the blend is effective, only if they have been trained on instruction design and delivery. It guides their instruction delivery and helps them improve their teaching with technology. Most of all it helps with recapturing classroom space.

Online Learning

- Definition accepted today (Simonson et. Al. 2006, Schlosser & Simonson, 2002):
  - Institution–based formal education
  - learning group is separated
    - Time
    - Space
  - Where interactive telecommunications are used to connect learners, resources, and instructors

Online learning is growing in popularity at a steady rate that peaked in 2009. The rate is till increasing, but at a slower rate since. However private institutions are still lagging behind public and the for-profit for obvious reasons.

The definition of online learning which is also referred to as distance education or e-learning is taken from the Simonson text: It states that Online learning has to be institution-based, where the learning group is separated by TIME and SPACE, and where interactive telecommunications are used to connect the learners with resources, instructor, and each other.

Concepts of the Definition

- Institution-based ≠ self-study
- Separation: time, place, & intellectual
- Interactive telecommunications:
  - synchronous or asynchronous
  - connecting
    - resources
    - learners
    - instructors
- If any of the above concepts are missing, then the event is something different than Distance Education

Why we stress institution-based? It is to differentiate online learning from self-paced learning where instruction is driven by the content to proceed with no instructor involvement.

The separation, it should be noted, is by time and space, but it is also an intellectual separation, otherwise the experience will become a facilitated course where knowledge is already built in the course design. In online learning instructor involvement is paramount. The instructor should bring knowledge to instruction as well as facilitate it.

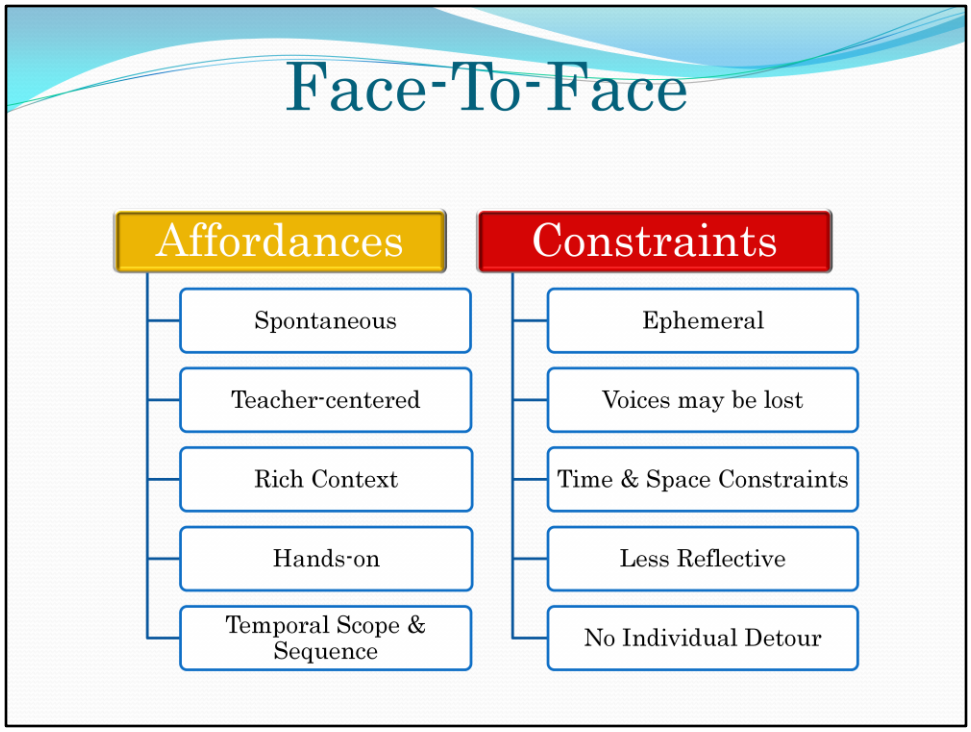
Telecommunications could be synchronous or asynchronous where the students are connected to the resources they need, to their instructor, and especially to other students.

If any of these concepts are missing, then the event is no longer an online learning experience.

Best Practices

- Taken from
  - USDLA
  - WCET
  - Sloan-C
  - Own research
- Framework
  - Collaborative
  - Constructivist
  - Learner-Centered
  - Iterative

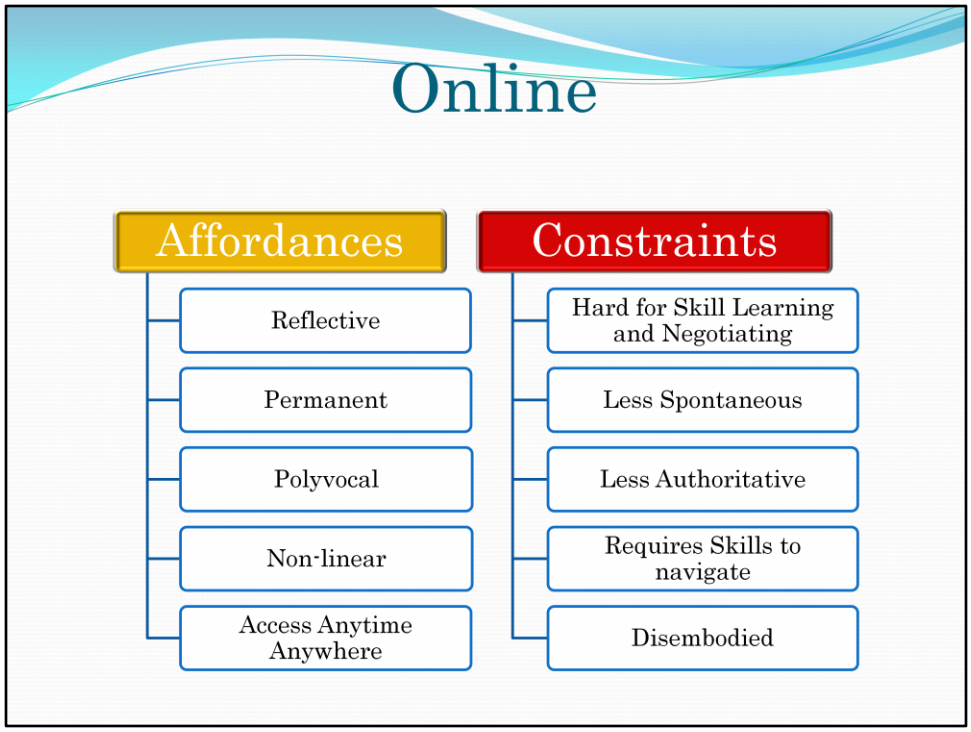
For web-enhanced, blended, and online instruction, best practices must be followed or the experience becomes hindered by the technology. See the best practices we follow at JHU in your referenced readings. Our best practices were taken from many sources and modified to fit the needs of the institution, the faculty, and especially the learners. The sources are USDLA, The United States Distance Learning Association, The WCET western cooperative, since our accrediting agency, Middle States follows their guidelines, Sloan-C since they do a great deal of research on online, and especially blended learning, and our own research in the area.
For our design and course delivery we follow a collaborative, constructivist approach with emphasis on learner-centered approach to teaching and designing, and an iterative approach to design.



Which ever way we decide to deliver instruction, web-enhanced, blended, or online, we need to address the affordances and the constraints of each and how to overcome the disadvantages by using sound instructional strategies and effective technology. The issue is to use technology to enhance learning and not for technology's sake.

I the face to face environment, the affordances or advantages are numerous, instruction is spontaneous, the student gets instant satisfaction and learning is driven by the environment and student responses and reactions. It could be teacher-centered and therefore it drives the instruction and the direction of learning. It offers a rich context, it is hands-on and it has a temporal scope and sequence which can offer an immediate gratification.

The constraints of face to face were not obvious to us before the transition to online, after the transition it became apparent that in face to face learning, instruction is ephemeral and fleeting, as a learner, I might retain very little of what was discussed and said. Voices may be lost, especially in large classes where most students will not have time to voice opinions or express concerns. It also has time and space constraints especially if our audience is an Adult learning group with busy schedules. It is less reflective because responses are oral and just in time. There is no individual detour in the live setting, which could be a constraint depending on the audience.



The affordances of online instruction are not evident at first, one has to participate in online courses to start noticing them, and they are true only if design and instruction delivery are done effectively. The discussion online is more reflective, because the students have more time to think of the answer, and they usually put more thought into it because it is permanent for all to see, read, and revisit. As we said it is permanent, and if the student chooses to revisit certain points, they can at any time. All in the class are heard, since there are no time constraints and limits on the discussions, and usually it encourages the less vocal participants to voice opinions they would have otherwise kept to themselves. It is non-linear since the learner can go back to revisit points, discussions, and resources to improve knowledge. It is also more freeing, since it can be accessed anytime any place.

The constraints can be mostly user dependent, But in general it is hard to teach skill based events online, however virtual worlds are coming close to minimizing that effect. It is hard for negotiating, since it takes longer online, it is less spontaneous and instruction has to be pre-determined, it is less authoritative and requires technical skills. At times it feels disembodied, especially at first until learners get used to the new environment. One major constraint is class progressing, it is tied to all learners participating and engaging in the class. If a few fall behind, they will slow down the progression of the course. Catching up is usually not feasible, since the discussions would have happened and any participation after the fact becomes mechanical. If a good number of students don't participate, the instructor is forced to slow down instruction to allow them to catch up. This will affect the progress and satisfaction of

the students who kept up with the process.

Millennial Generation

Who is your audience?

- Generation born 1980-2001
- Raised using technology
- Gaming as part of daily life
- Learn in bits and bytes
- Shift in learning needs and modes
- Shift in teaching styles

Your audience today is becoming more technology oriented, it is the generation that grew up using technology, including, gaming and internet searching. They expect information to be ready and on demand, they learn in bits and bytes . We have to accommodate our teaching delivery to fit their new needs in learning and information and knowledge retention.

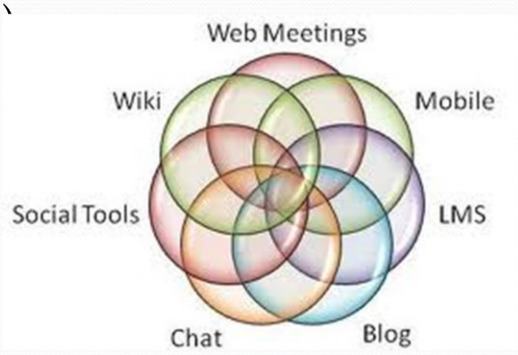
Multiple Instructional Strategies

- Learning Contracts: online conferencing.
- Lecture: Video casting tools
- Discussion: Voice Boards
- Mentorship: Voice Boards, Voice Emails
- Small Group Work: synchronous meetings
- Collaborative Learning: online conferencing
- Case Study: conferencing groups

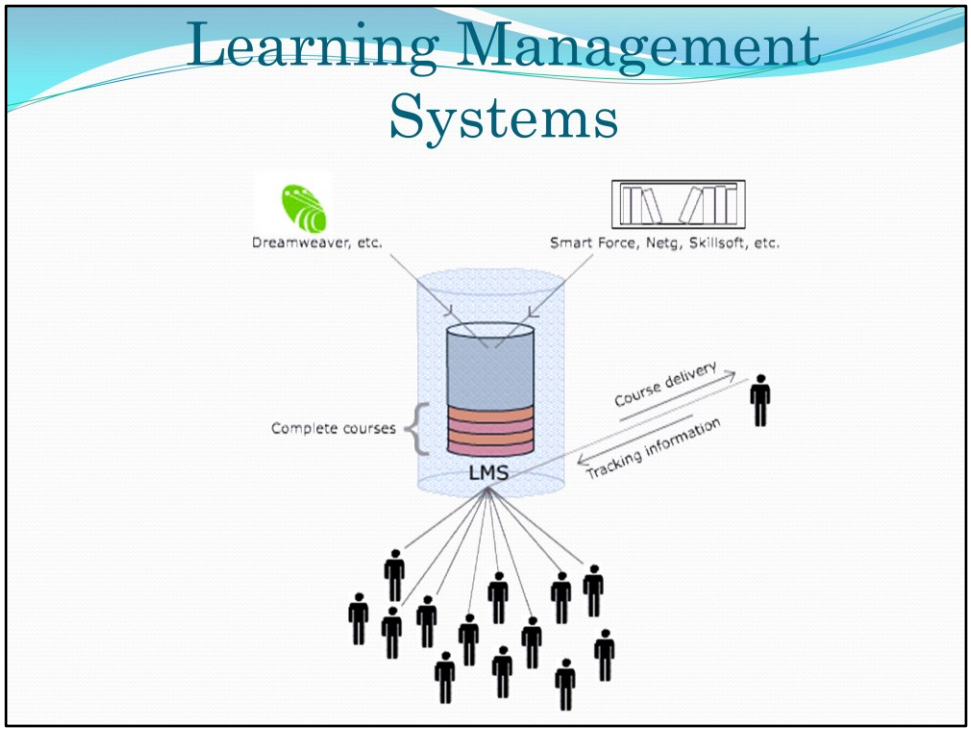
To address some of the needs of your audience, you might want to consider the following strategies and the tools associated with them. We will expand on the strategies in later sessions. As a start, learning contracts allow your learners to feel invested in their own learning, you can use online conferencing, such as chat rooms to negotiate a contract. Visually heavy lectures can address the need of your audience to get information in the way they are accustomed to, in small bits and bytes, you may want to use, videos, with voice over to illustrate your point. Discussions can be enhanced with voice threads. Mentorship is needed to guide their learning, and adding voice to your input makes it more user friendly. You may want to use small group activities and collaborative learning which can be facilitated by team spaces and wikis, even online conferencing. Lastly, the use of case studies allows your audience to learn from real life examples, you may want to use discussions, conferencing, voice boards as the many tools available to enhance their experience.

Delivery Systems

- Learning Management Systems (LMS)
- Content Management Systems (CMS)
- Learning Content Management Systems (LCMS`



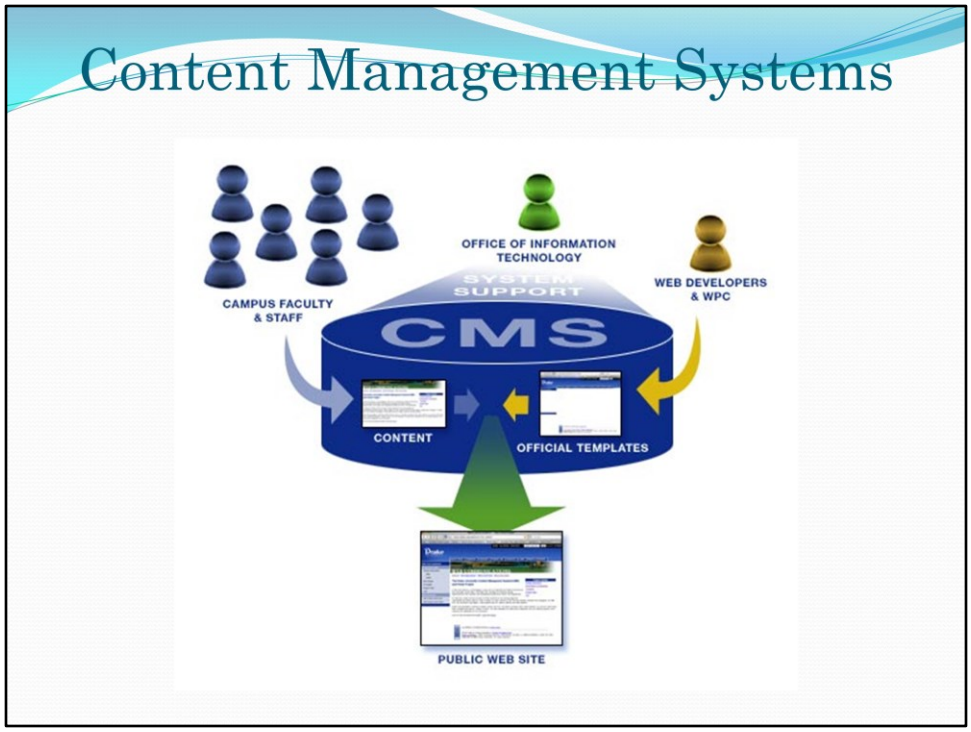
After you have decided what instruction delivery method you want to use in your own teaching, you need to decide on the platform, usually instructors don't have a choice, since the institution decides which platform to purchase. However, it is wise to be informed and to know what choices there are in order to affect change if needed. To date we have three major classes of content delivery platforms: Learning management systems, content management systems, and learning content management systems. They all allow the delivery of content to the end-user, however, they differ in capabilities, purpose, and application.



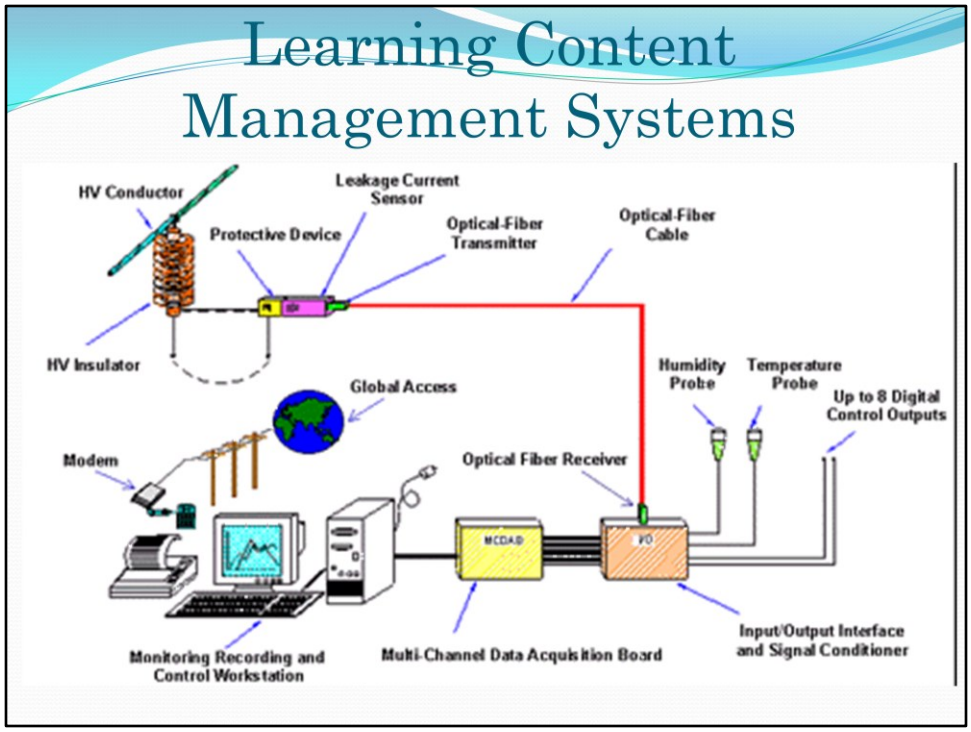
A **learning management system (LMS)** is a platform that your institution manages for the administration, hosting, tracking, reporting, communication, and delivering of training programs, courses, and online events and content. An LMS should be able to:

centralize and automate administration of content
use self-service and self-guided materials
assemble and deliver learning content
consolidate training initiatives on a scalable platform
support portability and standards
personalize content and enable knowledge reuse
facilitate user participation and interaction
include grading reports and progress report tracking
allow user interaction with content and other users

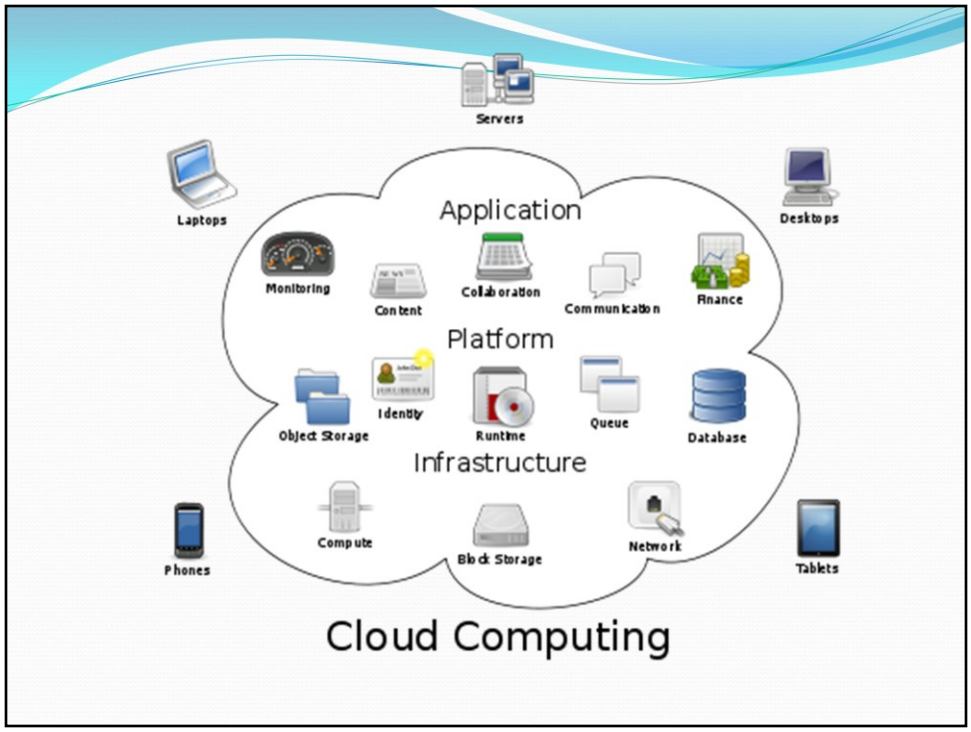
The primary function of an LMS is course delivery, some examples are Moodle, BlackBoard, eCollege, MyLearning, and the ELC we are using in this course.



Content Management Systems (CMS) were designed for content management and not for instruction delivery, they are simpler and less complex than an LMS, and have less features as part of the platform. They:
Allow for a large number of people to share and contribute to stored data
Control access to data based on user role, depending on what role they have.
Facilitates storage and retrieval of data.
Control data validity and compliance.
Reduces duplicate inputs;
Simplify report writing;
Improve communication among users.
Define data as almost anything: documents, movies, texts, pictures, phone numbers, articles.
Usually they are platforms used by organizations to manage the content and the look of their websites or an intranet for communication among users.
An example of CMS is Sharepoint which we use at JHU to share documents and other resources with others. A wiki could be considered a CMS if it has enough capabilities.



Learning content management system (LCMS)
(LCMS) is a related technology to the learning management system in that it is focused on the development, management and publishing of the content that will typically be delivered via an LMS. However, the LCMS is a multi-user environment where developers may create, store, reuse, manage, and deliver digital learning content from a central object repository. LCMS applications allow users to create, import, manage, search and reuse small units or "chunks" of digital learning content and assets, commonly referred to as learning objects. These assets may include media files developed in other authoring tools, assessment items, simulations, text, graphics or any other object that makes up the content within the course being created. LCMS have the ability to assemble and consolidate learning objects into lengthier "learning paths" or learning experiences that are personalized to a learner's profile, job description, assessment results, or requests. Basically an LCMS is an LMS that has extra features such as creating, housing, editing, and reusing media learning objects. It is more interactive, contains a digital repository, and allows easier interaction and reuse of existing content. It should contain a digital library to house artifacts. There are very few of these platforms in existence. They are the future of what an LMS should be and most existing LMS are slowly adding features to achieve that goal. The ELC you are currently using will be integrating a digital Library as part of the system.



According to IBM SmartCloud initiative: Cloud computing changes the way we think about technology. Cloud is a computing model providing web-based software, middleware and computing resources on demand.

Basically You can access all applications from your desktop in the cloud, from anywhere you are in the world. You can store, retrieve, print, communicate, interact, and edit in the cloud.

Google, IBM, and many others are offering such services, Google offers many services (See tutorial in the resources area) including, document sharing, group creation, sites, and Chrome (browser), allows you to create a print option that detects a printer in your vicinity without it being connected to your server or computer, it is in the cloud. Implications on teaching and learning are enormous, we are moving to a portable, mobile, anywhere anytime accessibility with no restraints.

We are not ready for body embedded mobile technology yet, however, if you look around you, most people already have, iPads, iPhones , laptops, smart phones, and many other portable devices. They are all expecting to be connected to your course on the go. It is up to your institution to make it feasible for you to connect on the go with your net generation audience, by providing mobile apps for your devices to connect to your material.

We have to keep up with our audience, otherwise we are missing opportunities to connect with them.