

Integrating Learning and Collaboration using an Interactive Online Course Syllabus

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Abstract: This paper introduces and demonstrates the creation of the Interactive Course Syllabus. The interactive course syllabus is designed to integrate learning, learning objectives, and learning objects into an important document that is presently underutilized and unappreciated as an instructional tool. The paper also summarizes the potential benefits of the usage of the interactive syllabus for online instruction.

Introduction

The syllabus is the contract for the course. It contains information that hopefully makes both the instructor's and the students' lives easier. But it also contains information that, at least in this country, is driven by law and bureaucracy. School administrators require that certain policies be stated in these documents. Articles on syllabi development recommend the inclusion of other information (Slattery & Clarion, 2005; Grunert, 1997) e.g., course outcomes, grading policies, schedules. Most students are at best only slightly aware of the information that is contained in course syllabi (Vodonavich & Piotrowski 2004-5). When students do use the syllabus, they generally look at it just before the start of class and refer to the present weekly assignment or to testing dates (Calhoun & Becker, 2008).

There are several reasons that could account for this. First syllabi for most institutions are somewhat cookie cutter. Certain policies on grading, attendance, late assignments, and plagiarism are dictated for the institution and the students have already been exposed to those policies in other courses. Secondly, the strategic information that students seek about assignments, due dates, and sources is frequently also contained in the course management system's outline. Thirdly, most syllabi are usually presented in a text document that due to the inclusion of the above mentioned administrative and legal requirements, their length may be anywhere from 10 to 15 pages. Such length is not appealing even to those whose learning styles might favor a text only media approach. More and more today's students are more familiar with multi-media approaches. Some believe that the multi-media approach appeals to students who learn in different modalities and that multimedia and alternative presentation styles can decrease cognitive load. (Mayer, 2003) Also, these text-only-based syllabi are difficult for ESL students where language and cultural differences between the institutions and students result in misunderstanding and obfuscation. (Nguyen, 2008)

Because of the contractual aspects of syllabi, the text version is quite important for schools in the United States. However, it hardly serves any purpose at all if it is not read and comprehended. Also, it is a waste of potential learning. For ESL students, not only is the legalese of the language of the administration's mandated insertions confusing, but there are cultural distinctions that need to be communicated, e.g., plagiarism, privacy, etc. For these and other reasons, the syllabus, and in this case the online course syllabus, needs to be rethought. It needs to be part of the learning process. It needs to include the learners' objectives along with those of the instructor and the administration. And it should communicate clearly and accurately to ALL students.

If the syllabus becomes part of the learning process students will use it to meet their learning needs and instructors will value it as an instructional strategy. And the same syllabus can provide a means whereby, the learners' needs, the instructor's goals and the administration's objectives can be met.

In this paper I will concentrate on the importance of engaging students (Salmon, 2002) in the course using the syllabus and on some methods for doing so. The three points addressed will be incorporating student needs, building and using digital media/learning objects, and different tools that offer multi-modal presentation and interaction for instructors and students.

Incorporating Student Needs

In the proposed Interactive Online Course Syllabus *Learning* is defined as having three aspects,

- A. Goals—what the instructor values for learning;
- B. Objectives --What will students be able to do; and,
- C. Needs—What students will value and use.

Examples clarifying the differences between goals, objectives and needs follow:

Example of Instructor Course Goals

For a Business Strategies Emerging Media course, the instructor valued the new ideas and creative possibilities that emerging technology tools brought to business organizations and other environments and wanted the students to recognize and appreciate these possibilities. The instructor was also concerned with providing alternative means of both instruction and presentation in the classroom and with exposing the students to ideas from academic areas outside of computer science—displaying how other disciplines adapted technology for their own uses. Finally, the instructor felt that since this was an introductory doctoral course, the students needed experience in hypothesis development and testing, academic research, and organizing and structuring writing skills.

Example of Administration's Learning Objectives

Learning objectives have a long history in course design. They are related to administrative needs and the institute's accreditation. In the Business Strategies course, students were expected to teach themselves and others about the tools called emerging technologies and to apply those technologies to business strategies and the goals of various organizations. The students were also expected to:

- Identify and critically evaluate the strategy and tactics needed to leverage social media in the enterprise.
- Apply a problem-based learning approach to exploring social networks as viable business solutions.
- Research the relevant literature in the field and investigate the current best practices in social networks and Web media.

Course Learning Needs—What Students will value and do

Students in online doctoral programs are generally older and working full-time. The students' needs and desires, for the most part, are to extend their current career or to change careers. Some students also value learning for the sake of learning and want to contribute to their professions. Frequently the students want to integrate the course material and assignments into their work life and then move on to the next course or job. When possible this integration of student's work life with learning objectives and instructor goals results in a more motivating learning experience and above-average course assignments. For example a student in the Business Emerging Strategies course applied the objectives and goals to her interest in the social outreach done by her church and came up with several media projects that are still by used by that organization. The forum for the first week of the course provides one method for posting student goals. Another method is the use of a poll or survey during the first session or week.

Beyond the importance of including students needs into the instructional strategies is the fact that students need to be engaged in order to have a successful learning experience. Since students vary in their preferences and in their learning modalities, an instructor needs to be familiar with the tools and building blocks that can be used to create an interactive course syllabi .

Tools and Building Blocks Offering Multimodal Presentation and Interaction

Table 1. Some Media Tools Available

iMovie	Moviemaker
Google Suite including Docs, Alerts, Feeds, Reader, Gadgets	Prezi
2011 Powerpoint	Glogster
You publish http://issuu.com/	Audacity
Vuvox	Survey Monkey
Aggregators (netvibes.com)	Slideshare
Xtranormal (text to video)	

Building Blocks--Using Digital Media Objects (DMOs) in creating course syllabi

The Interactive Online Course Syllabus is created using digital media objects and formative feedback taking advantage of the appeal of multimedia and its ability to increase cognitive understanding within different learner types (Mayer & Moreno, 2003). Its components would include:

- Text, tables, pictures
- Images from digital collections
- Podcasts
- Animations
- Graphics and symbols
- Cloud tools
- Audio explanations and Videos
- Links or URLs

Digital media objects:

- are fluid and changeable
- can be text, graphics, animations, audio, video, or photos
- usually exist in more than one form
- are accessible, retrievable and searchable by others
- can be inputted and can be an output

Digital media objects are reusable and self-contained. They can also have other functionality, like a book object or a hyperlink object.

Once digital media objects for the interactive syllabi are created and stored, they can be modified and reused, thus reducing the instructor's work load. DMOs can also be used to create Digital Learning Object(s) (DLOs). DLOs are *units that can be fitted together any number of ways to produce customized learning experiences. According to Rachel Smith (2004) it is the "Grouping of material in a meaningful way that is tied to an educational objective."* DLOs can be documents, pictures, simulations, movies, sounds, and so on. *If digital can be delivered or accessed over the internet or across a network and usually they are flexible, cost-effective, reusable and customizable.*

Digital Learning Objects consist of:

Table 2. DLO components

Content	Interface	MetaData*
Documents, pictures, simulations, movies, sounds, etc. Intro Objectives Example Explanaton Practice Assessment Summary	Medium through which users interact with object. Can provide alternative formats (i.e., audio, visual) and learner control of start, stop, and pace.	Information about the object itself (author, creator, general subject area, copyright) *This is useful but not mandatory for learning objects

Another important attribute of digital learning objects that differentiates them from traditional, static learning objects is that they are more under the control of the learner with the potential for individual interpretation and constructed meaning.

The benefits of DLOs include:

- Better understanding of more abstract and complex concepts by describing and characterizing relationships and evidence of cause and effect (Tuft 1997)
- Supporting instruction and multi-modal learning
- Promoting proficiency and improved learning and retention of content
- Scaffolding with other objects possible
- Application in cross-disciplinary studies
- Customization of content to meet individual learner needs.

Following are some examples of the use of DMOs for interactive syllabi utilizing different tools. Notice the reuse of the media objects.

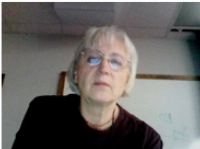
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EM820

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- Cloud Tools
- Contact Me
- Extra Credit
- Forms and Docs
- Links to Videos and Other sources
- News Feeds
- Poll
- Reading List
- Sample Projects, Papers, Videos
- Word of the Week
- Sitemap

Meet Your Instructor



Class Calendar

Tip: [How to replace this calendar](#)

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(Today) ◀ ▶ May 2011 Print Week Month Agenda

Sun	Mon	Tue	Wed	Thu	Fri	Sat
May 1 Week 5 reading 2pm Breeze Mee	2	3	4	5	6	7 Forum Question
8	9	10	11	12	13	14 Your Questions
15	16	17	18	19	20	21 Answer Peer Q
22 Begin Literat Week 8, readin 2pm Breeze Mee	23 Begin your bloc	24 Begin your bloc	25 Begin your bloc	26 Begin your bloc	27 Begin your bloc	28 Begin your bloc Lit Review due
29 Week 9, readin	30	31	Jun 1	2	3	4 Forum on Futur

Figure 1. Google suite of apps <https://sites.google.com/site/emergingmediabusiness/>

Emerging Media

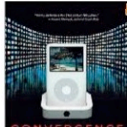
EM820

- ▼ Home
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Home

Course Description, Instructional Approach

This course examines the intersection of people, business processes, culture and Web 2.0 technology as they are applied within social networks and Web media. It uses an interdisciplinary approach to integrate the fields of Web science, social psychology, business and management as well as collaborative online software practices into business solutions. Students apply problem-based learning strategies to explore the risks and benefits of social media for business use.



- Investigate the field of web science and how it relates to social psychology, web engineering, business and management and collaborative tools and Web media.
- Explore the features, risks and benefits of social networks and cyber media for use in business, education, research, entertainment, and socialization.
- Identify and critically evaluate the strategy and tactics needed to leverage social media in the enterprise.
- Apply a problem-based learning approach to exploring social networks as viable business solutions.
- Research the relevant literature in the field and investigate the current best practices in social networks and Web media.

This course has a problem-based approach and will use hands-on learning, exploration, and discovery. In addition participants will be required to become familiar with others in this field and to use and improve their research, writing

Figure 2. Web site approach <https://sites.google.com/site/emergingmediabusiness/home>

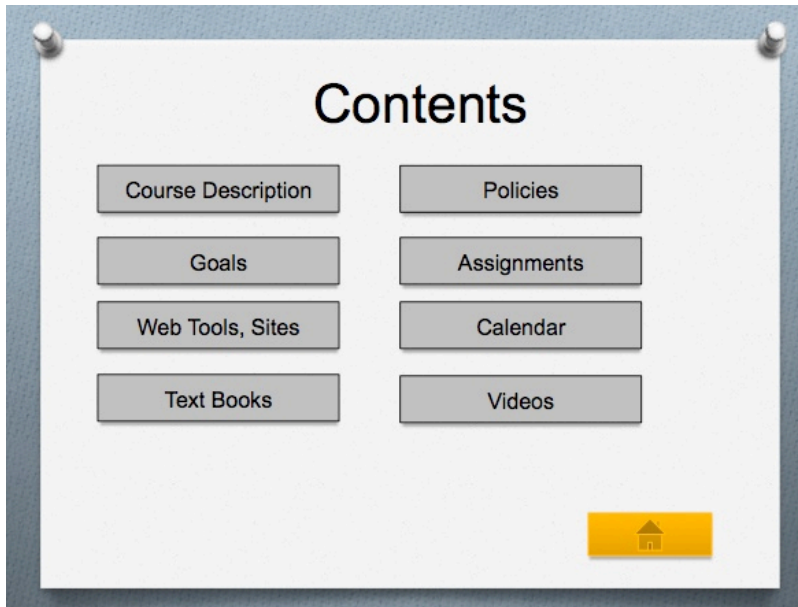


Figure 3. Powerpoint approach <http://www.slideshare.net/dv3709/short-em820spr11>

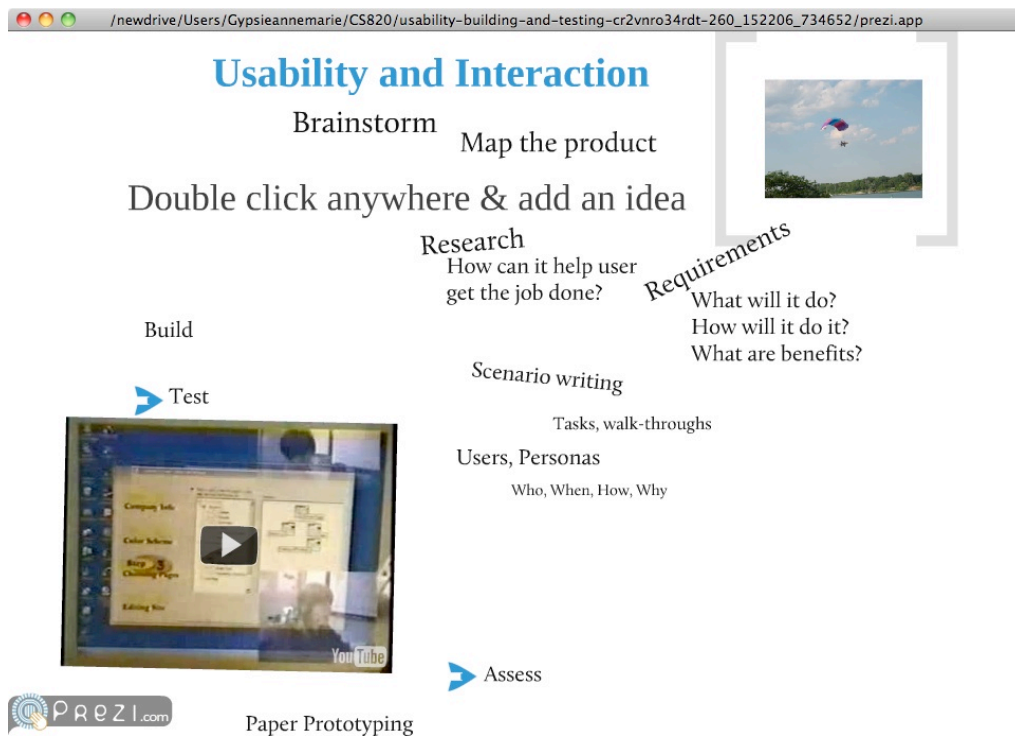


Figure 4. Interactive Whiteboard approach using Prezi <http://prezi.com/cr2vnro34rdt/usability-building-and-testing/>



Figure 5. The Syllabus as a Poster, individualized for each student.

<http://gypsieanne.edu.glogster.com/fall-cs820-intro/>

Pod Casts Examples

The pod cast portion of the syllabus for the course serves to motivate students to begin reading and any other preparation before the first class meeting and also models a delivery method that might be an option for some of the assignments. CS820 Welcome, Introduction, <http://www.youtube.com/watch?v=ymdgjLTC8sw>
EM820 Welcome, Introduction, <http://www.youtube.com/watch?v=GTqBL73uqe8>

Other pod casts that are available under creative commons licenses can also be used for assignments as digital learning objects (DLOs). DLOs have introductory explanations, accompanying questions and are usually graded.

Perceived Benefits of Interactive Online Course Syllabus

Some of the benefits of the Interactive Online Course Syllabus are:

- Students have the opportunity to add resources, ideas, and examples which results in a variety of perspectives and the experience builds collaboration skills.
- The collaborative efforts builds community and provides motivation to complete assignments that are relevant to students work and life.
- Uses universal design principles providing accessibility to all students
- The navigation provides additional, just-in-time information
- Hypertext and Hypermedia addresses the need to provide for multiple perspectives and learning styles. Also provides flexibility and individualization

while conforming to the instructor's and the administration's objectives for course.

Instructors must be careful not to provide excessive structure to their classes that eliminates the potential for students making critical decisions about their assignments. The term flexibility refers to making the learning more relevant to the student's needs or circumstances. ... Online instructors can demonstrate flexibility by encouraging students to adapt their assignments to align with their work responsibilities. Obviously, the student selected work or paper topics should support course learning objectives. (Muirhead, 2002)

- Interactions align with the top three levels of Salmon's online interaction model: information exchange, knowledge construction and development
- Students develop self-directed learning skills. Because they are participating in the writing their own course objectives and developing the assignments that meet those objectives, the students develop self-directed learning skills as found in the works of Malcolm Knowles

Diagnosing their own needs for learning

Formulating their own learning objectives

Identifying effective human and material resources for accomplishing their objectives

Choosing and implementing effective strategies for using these resources

Evaluating the extent to which they have accomplished their objectives (Knowles 1990, p. 135 as quoted in Murirhead 2005)

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