

# DESIGNING A WEB-BASED ASYNCHRONOUS INNOVATION / ENTREPRENEURISM COURSE

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## ABSTRACT

Teaching an online fully asynchronous information technology course that requires students to ideate, build an e-commerce website, and develop an effective business plan involves a well-developed and highly engaging course design. This paper describes the design, development, and implementation of such a course and presents information on students' learning effectiveness and challenges associated with managing a course using this approach.

## KEYWORDS

Online Instruction, Asynchronous, Innovation and Entrepreneurism

## 1. INTRODUCTION

Teaching fully asynchronous courses online requires faculty expertise, a well-developed course plan, and the required technology to enable effective communication between faculty and students. Unlike highly technical courses teaching students to engage in creative projects and to build a functioning enterprise online has many challenges associated with it and thus requires further attention given to the development of an effective course design. In a course involving examination of the concepts, technologies, and applications of electronic commerce with topics including the World Wide Web as a platform for electronic commerce; mobile networks; electronic banking and payment systems; security and firewalls; software agents; and the social, legal, and international issues of electronic commerce we need a carefully planned set of foundational topics to be shared with learners plus a technology platform that will allow for individual and group communication and teamwork.

## 2. COURSE DESIGN

Two approaches can be taken to integrate e-commerce website and platform building: 1) Teaching a standardized process, so students all acquire the skills by watching the instructor demonstrate and the students emulate or 2) Creating the framework for students to fathom their own ideas and experiment with building out their own implementation. Option 2 will require more time, empathy, and attention as students should be given autonomy, but be closely monitored to ensure certain levels of productivity and forward trajectory. Students should also be primed to think innovatively and entrepreneurially, which will take additional time and energy from the instructional team.

Several tactics to promote innovation and entrepreneurism include:

a. Cultivate creativity by encouraging students to experiment, fail, and obtain feedback. This must be a controlled process.

b. Use guest speakers to encourage and motivate students. Bringing in actual practitioners to complement professor teachings would only reinforce concepts and show the realm of possibilities to students.

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c. Mandate entrepreneurial book readings and articles. Students can learn the intricacies of e-commerce, the internet, and business principles through the textbook; however, integrating short, practical books can help invigorate students' entrepreneurial ambitions. Some of the material in this field provide an atypical

framework to creating a business that is currently not being taught in conventional textbooks. Exposing students to both perspectives expands their horizon for thinking.

d. Provide timely feedback to students. Give ample feedback and provide early and often to help steer students in the correct direction early. Additionally, early feedback allows students to take corrective measures or to stifle the onset of bad habits.

e. Allow students to focus on the “big picture” problem. Give students the opportunity to formulate a strategy to solve a “big picture” issue, then remove encumbrances that may inhibit the creativity process. Inundating students with too many smaller level tasks or “Level C” tasks prevents them from accomplishing “Level A” tasks. It will be up to the instructor to design the course to create primary “Level A” tasks / objectives rather than to generate a series of constant “Level C” deliverables.

## 2.1 Learning Mediums

All students learn differently and require different modes of exposure to content. The five learning mediums used are described below:

1. Learning Communities- The purpose of advanced level educational degrees is to become producers of information rather than consumers of information. Another benefit to pursuing these degrees is the networking. To facilitate networking in an Online program may seem difficult, which is why Learning Communities are being used more often.

Through the use of learning communities, students foster relationships with peers by moving from a large sized class to a smaller segmented group of individuals. The formation of learning communities should be well-thought out to prevent too many like-minded individuals from congregating together and possibly creating groupthink. Diversity of group members’ perspectives and backgrounds should be considered when curating groups. These individuals will work within the Learning Community together, which creates this illusion of a smaller class. This removes the fear and intimidation or the feeling of being a “lost voice” in the sea of many when in a large class.

If a degree program encourages more group work in subsequent classes, many students in Learning Communities will have already established working relationships and can leverage these relationships in future courses. In an introductory core course and predecessor to many other courses in various modules, this would be a good course for students to establish networks and relationships, and promote strong work ethics due to the rigors of the course. Furthermore, Learning Communities can encourage students to learn or improve rapport building skills as they navigate the course together and negotiate tasks and team contributions with one another.

Within Learning Communities, prompts must be provided to facilitate discussion. The discussion prompts used in the class pertain to entrepreneurship concepts. Since students read the material on their own with very minimal oversight or compliance enforcement, the discussion prompts are used to serve as the mechanisms to instill student accountability. Students are asked to read two (2) chapters from the book every week, then required to create three (3) possible exam questions to posit to their peers. Peers are then obligated to answer three (3) of their peers’ questions. Essentially, students became the solutions architects of possible final exam questions. Since students have to devise their own examination questions, this would incentivize them to do the readings, ask the questions, and answer other questions. Professors can conduct quality control of the questions by monitoring the types of questions posited. If key concepts are not sufficiently covered, then the professor has the right to intervene and reorient the types of questions asked or generate his/ her own final exam questions. This further incentivized students to ask deep, profound questions covering essential topics and concepts to ensure insertion into the final exam.

2. Hands-on Application- In such a course students are required to build an e-commerce website. Each student is required to learn the necessary skills to build his/her own website. Later, they will assemble into groups to build one larger application. In order to get students ready for the build, each has to complete a series of individual assignments. Once completed, they work together to formulate a business plan for ideation and planning purposes, then seek to implement the plan.

Steps to getting students ready for the build:

Students are exposed to Library Resources such as business databases, government statistics, and industry analyses to understand how to conduct market research on a superficial level.

Students then are asked to analyze two existing e-commerce businesses and determine their business models. This would help not only with writing business plans, but also to nurture the creative thinking process.

Students are then required to build their own WordPress websites for hosting. Customization of WordPress websites is restricted in some hosting sites; however, students are exposed to the principles of what comprised a website. The subject matter of the website is up to the student. This is another tool to allow for student's creativity to flourish and thrive.

Students peer review each other's websites to learn practices undertaken by others, but also to ease the grading burden for the Instructors. The more peers can do to grade one another, the less workload imposed on the graders.

Students create an Ecwid.com site to understand the simplicity of creating an E-commerce storefront in the matter of minutes.

Students engage in two rounds of business plan writing: 1) Initial business plan and 2) Final business plan. The initial business plan is required to structure groups' to first plan out the product or service they would unveil to the marketplace. This is to be written before building the e-commerce site. The Final business plans is written in conjunction with the build. If groups find it implausible to build the site, they could pivot and change course. They could amend the business plan or abandon it and create something entirely new. The business plan is not intended to become a restrictive device to bind students to an untested product or service. It is not until they started the build and obtained feedback that they could amend or change accordingly.

Teach website development skills. These are the skill sets students need to separate themselves from other peers. Once the skill is attained, students can create an online portfolio of projects they've built in school to showcase to employers, investors, family, and friends. In fact, every student should have his / her own website to serve as a dynamic resume. This could be construed to be the same as a LinkedIn account, but this site could be leveraged to demonstrate his or her creativity. They could also integrate social media accounts onto their websites to create a repository of a person's web presence and social footprint.

In school, students learn how to create PowerPoints for presentations. Students can learn how to create websites and use websites for presentations, too. This can be used as a communication tool. Creating websites is simply a functional skill to have.

**3. Live Q & A sessions-** Live Q&A sessions are administered every week. Instructors teach requisite skills students need in order to propel forward motion. For example, the Instructors can teach how to setup a WordPress website and how to navigate through the dashboard. This frees students from fumbling around in the backend to focus more on what they intended to build and how to convey the content.

**4. Lectures, Textbooks, and Examinations-** Lectures and examinations are the traditional vehicles to convey and indelibly imbue key concepts and takeaways. These methods should still be the staples in any course. There are other vehicles to complement lectures and textbooks, but those methods should be combined synergistically. For example, examinations are accountability tools to ensure students are attending lectures and reading materials. Without exams, students may not attend class nor read materials on their own without some sort of enforcement mechanism.

In reference to student readings, students can lose fervor to engage reading materials if the reading materials are located in various locations. Some online courses provide links to online content for reading. Some courses provide journal articles for reading. When textbooks are used for a course, these act as centralized repositories to reduce the amount of "moving parts" in a class. This is akin to website browsing. Web surfers would like to obtain all their content from a single website. When websites begin directing users to different sites that is when users get lost in the shuffle. They begin reading topics outside the webpage and can become distracted from the main purpose of visiting the initial website.

Also, textbooks can facilitate a standardized routine for students. When an online class has multiple aspects to it, such as Learning Communities and Hands-on Applications, for students to know that every week they will have certain amount of material to read, they can read or plan ahead. They can count the amount of weeks that have elapsed to know how many chapters they should have read. By routinizing their reading schedule, students can free up their conscious mind to think creatively for projects and hands-on applications.

5. Discussion Forum- Students need lively discussions. Students will ask the same questions and it's best to create a centralized repository for them to seek when needed. Being this is asynchronous, some students get a preemptive jump and start at the beginning of the week. If they encounter a problem, they ask the question in the forum. These are similar to the early adopters. Then the early majority swoops in and asks more questions. By the time the late majority and laggards begin their work, all the questions and answers will dwell within a discussion forum.

Instructors need to create the discussion forums from which all the data can be accumulated. If the professor does not, students can create their own discussion forums. When students begin creating their own discussion forums, then randomness takes place and it becomes more difficult to figure out where to start. If not, there just becomes an abundant amount of prompts with few responses and it becomes so overwhelming to click through each post read. We must still think about user navigation and user interface. The less clicks they have to make the better.

Concepts described in this paper are currently being implemented in an information technology course with 86 students enrolled. The results of this experimental study will be available at the conclusion of the course.

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