PREPARING STUDENTS WITH INTEGRATED SKILLS IN E-COMMERCE AND VISUAL DESIGN

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ABSTRACT

The purpose of this paper is to describe an inter-disciplinary project that enhances student skills in the world of e-commerce. The paper further describes the course requirements, rationale and benefits of such a program.

Key words: visual design, e-commerce, art, information technology

INTRODUCTION

The project described involves the development of a minor degree program in Art called Web Site Design. This is a multi-disciplinary curriculum, which will be offered by Northwestern State University’s nationally accredited art program, in conjunction with its Computer Information Systems (CIS) Department, College of Business, which is AACSB accredited. The motivation for developing this curriculum is to enhance the technology skills of Art majors by exposing them to the world of business and e-commerce, and providing more technical training in the development of online commercial sites. In addition, we want to enhance the artistic skills of CIS majors through visual and graphic design instruction. A third objective is to provide a practical minor that that many students in arts and sciences can select to bolster their employment opportunities. The overall objective of the project is to develop students who can both design and implement effective e-commerce web sites.

Traditionally the Art and Business Departments have not attracted similar students and therefore do not interact on an academic level. However, in today’s environment of e-commerce and digital media, there is no doubt that technology is changing the way that most jobs are performed. Individuals seeking employment will have a significant advantage if they have Web-based skills as a tool for enhancing their job performance. (2) We have seen a growing interest by students wishing to increase their knowledge in each of these programs (Art and CIS) in an effort to better achieve their career goals. CIS students have taken some of the introductory art courses to help them create more effective web designs while several art majors have taken CIS courses to improve their web building techniques. Noting this crossover interest has sparked the idea for creating a new minor within the university, which integrates the two concentrations through an intra-university teaching and learning experience. Business students recognize the need for good design to create effective web pages, while art students are anxious to implement more effective technical solutions when constructing their aesthetic creations. The faculty have taken the initiative to address the needs of these students by cooperating in a unique way.
INSTITUTIONAL INFORMATION

Northwestern State University (NSU) is a four-year public institution and part of the University of Louisiana system. The collaborators in this project are the Art Department and the Computer Information Systems (CIS) Department, both of which have been designated Areas of Excellence by the Louisiana Board of Regents.

The Art Department is accredited by the National Association of Schools of Art and Design (4), offering courses in graphic communications, photography, drawing, painting, sculpture, ceramics and other traditional media. There are approximately 130 undergraduates and 10 graduate students served by seven full time faculty and several adjuncts.

The CIS Department is part of the College of Business at NSU, which is nationally accredited by the Association to Advance Collegiate Schools of Business (1). The CIS Department consists of approximately 300 undergraduates served by eight full-time faculty members. The department offers courses in programming, systems analysis, database, data communication and e-commerce.

RATIONALE FOR THE PROJECT

The near term and long term need for qualified professionals in the area of e-commerce technology is critical for U.S. and Louisiana companies. The U.S. Labor and Statistics Bureau predicts that employment in computer systems design and related services will grow by 55 percent and add more than one-third of all new jobs in professional, scientific, and technical services by 2012. Employment in three computer-related industries: software publishers; Internet publishing and broadcasting; and Internet service providers, is expected to grow by 67.9 percent, 41.1 percent, and 48.2 percent, respectively. At the same time, the baby boom generation is preparing for retirement, which will result in a decline in the number of skilled workers. (6)

A key specialty, particularly for non-technical businesses and not-for-profit organizations, is that of the webmaster (3). This is an auxiliary area that can be acquired by non-technical personnel who can serve as webmaster for the business or organization.

The University of Louisiana System is striving to assist the State of Louisiana to enhance and expand the workforce within the state, particularly in the area of improved use of technology to help improve the economy. The Art and CIS Departments initiated this project to help achieve this goal in two specific areas. First, we can supply more accomplished graduates in Web design and e-commerce to the Louisiana economy. Second, we can provide a vehicle that, through corporate collaboration and institutes, can be used by existing Louisiana workers to update their knowledge to become e-commerce professionals.

Nationally, most large businesses have two separate areas addressing e-commerce issues: one for artistic design and another for technical implementation. These specialty areas are the primary destinations for most of our current graduates. However, many small and mid-sized businesses, which include a large portion of the businesses operating in Louisiana, cannot afford this luxury.
They need one person (or small group) who can not only design an attractive web site, but who also can add operational functionality to that site. We are developing a minor degree program containing both Art and CIS courses to address this need.

In order to serve this audience, we have developed a minor degree that CIS and Art majors can fold into their existing degree programs without adding additional requirements. Students can use existing electives to take the appropriate CIS or Art classes. Thereby, both Art and CIS students can attain the knowledge and skills necessary for a single individual to develop and maintain an operationally vigorous e-commerce solution suitable for a small to medium-size business.

Equally important, the majority of degree programs offered by NSU require a minor as part of the degree requirements. The Web Site Design minor will open new employment opportunities for these graduates (5). For example, a history major with this minor can be employed by a small museum to develop and maintain a web site, in addition to performing the normal duties of a museum curator.

DEGREE DESCRIPTION

To accomplish the purpose described above, the Art and CIS collaborators have identified six courses to be included in the Web Site Design minor degree, yielding eighteen credit hours to complete the program. The Art Department will be the primary content manager for three courses, with CIS providing the content for the remaining three. Both departments will seek collaborating input from each other. The Art courses, listed below, introduce the student to the basic elements of commercial design with emphasis on digital media.

**ART DESIGN I.** Foundation for all arts through theory and application of two-dimensional creative expression; media and materials, demonstrations, discussions, lectures.

**GRAPHIC COMMUNICATION I.** Basic advertising tools and techniques involving design principles, page layout, and typography.

**GRAPHIC COMMUNICATION II.** Typography, styles and measurements; letter forms; digital imaging, and introduction to various layout and graphic software, e.g. Adobe Photoshop and Illustrator.

The three CIS courses are designed to provide the business and technical foundations to develop an effective commercial web site. These courses are:

**E-COMMERCE TECHNOLOGY IN BUSINESS.** Examines the implications of constantly changing technology for business practices and how e-commerce affects business performance. Examines the tools, technologies, and methodologies of developing e-commerce business practices.

**WEB PAGE DEVELOPMENT.** Provides a fundamental understanding of the tools, skills, and general design concepts required to develop web pages and web sites.
WEB SITE DEVELOPMENT. Examines the tools and techniques to create an interactive web site. Provides students with skills to receive and return information between the end user and a database system.

IMPACT ON CURRICULUM AND INSTRUCTION

The project will impact the Art curriculum by adding a new dimension to its Graphic Communications program. Today’s students are very well aware of the Web and experience it on a regular basis. Not only are they interested in learning traditional design elements and principals, but they also hope to apply this knowledge to current media trends. Previously, the printed page was the final output for the graphic designer, whereas now more and more sophisticated artwork is being seen on the Internet. Students who enroll in the new minor degree will be able to acquire valuable technical skills, which will expand both the variety and quality of the Art curriculum. The addition of the technical offerings will be accomplished without adding any new courses to the Art curriculum, although they will be modified to include the new media and mode of presentation.

Similarly, the CIS courses are currently part of the CIS curriculum; therefore no new courses are necessary. This project will enhance and enrich the CIS curriculum by adding the graphic and artistic design component to the e-commerce concentration. CIS students can take advantage of the minor degree by taking the Art classes as their electives. No modifications to the CIS curriculum will be required.

The strength of this project is that it takes advantage of the expertise and course offerings that already exist in both areas. Another positive impact is that the Web Site Design minor degree will be open to all NSU students, not just Art and CIS majors. Thus it is likely that both areas will gain some students who would not normally enroll in classes in these departments.

BUILDING STUDENT AWARENESS

While we are enthusiastic about the potential of this program, we recognize that it will not succeed without an effort to market the program and its benefits to our students. Participants from the two departments will collaborate to develop and disseminate marketing brochures and extensions to departmental web sites to advertise the new minor degree program to NSU students.

We will first focus on Art and CIS students, followed by students in the College of Science and Technology. We will also provide literature to the College of General Studies, whose students are keenly interested in a minor degree of this caliber.

The steps to accomplish this objective are outlined below:

- Contact university personnel to help determine the specifications of the brochure, such as size, layout, number of colors, etc.
- Obtain images of both Art and CIS students and activities
- Write the text for the brochure and web site
• Initiate the printing of the brochures
• Design and implement the expanded departmental web sites
• Deliver the brochures to the selected departments. Meet with department heads and faculty to review the program and to encourage the distribution of the brochures to prospective students.
• Provide brochures and web site URL to students attending freshman orientations.

SUMMARY

This paper describes our efforts to develop a minor degree program using courses from two areas that have not traditionally worked with one another. Current plans call for this minor degree program to be available in the Fall of 2004. While the end results have yet to be seen, we are confident that the program will be successful based on the increasing use of the web for commerce and the need for artists to create visually effective designs. With the two curriculums already offering these relevant courses and the demand by business to fulfill their web design needs, it was a natural evolution for the Web Site Design minor to develop and become a popular choice for students entering today’s competitive market. It will give our graduates more relevant and sought-after skills in their efforts for employment.

REFERENCES

1. Association to Advance Collegiate Schools of Business (AACSB), (http://www.aacsb.edu/accreditation/)
4. National Association of Schools of Art and Design (NASAD), (http://nasad.arts-accredit.org/index.jsp)