

AGRIBUSINESS SUPPLEMENTARY COURSE MATERIALS WEB PAGE

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PROBLEM STATEMENT

One difficulty agribusiness teachers face is a shortage of agribusiness texts and related course materials. Therefore, general business texts are often used in agribusiness classes. This is especially true for courses in quantitative methods and for upper-division or graduate courses. While most general business texts are of high quality, they lack agribusiness applications or homework exercises. Furthermore, the potential for the development of new texts specific to agribusiness is limited because it is a niche market.

A weakness in using general business texts for agribusiness is that agribusiness differs from business at least five ways (Sonka and Hudson, 1989). These are:

1. The unique cultural, institutional, and political aspects of food, domestically and internationally.
2. The uncertainty arising from the underlying biological basis of crop and livestock production.
3. The alternative goals and forms of political intervention across subsectors and among nations in an increasingly global industry.
4. The institutional framework leading to significant portions of the technology development process being performed in the public sector.
5. The variety of competitive structures existing within and among the subsectors of the food and agribusiness sector.

Assuming that agribusiness and business are distinct, the availability of supplementary course materials is important as means to distinguish the two fields of study.

To compensate for the lack of supplementary course materials, instructors typically integrate agribusiness examples into their lectures, and develop agribusiness exercises for homework sets, term projects, and case studies. While an agribusiness casebook has been published (Beierlein, 1988) and the agribusiness journals have begun to publish cases, the only

other exchange of supplementary course materials is at an informal basis between faculty members.

The rapid growth of the Internet as an instructional delivery tool presents an opportunity to overcome the paucity of supplementary course materials for agribusiness education. The objective of this paper is to provide information to agribusiness educators about the development a web page designed to share instructional materials and how they can use the page for their courses. In addition, information will be provided about features found on current web pages in agribusiness and agricultural economics courses.

PROCEDURES

The first step was to identify and evaluate current web pages. From the Departments of Agricultural Economics and Extension web site, 342 agricultural economics courses were identified with material on the Internet. Features of each page were classified in an Access database. A small group of undergraduate students at Purdue reviewed each web page and gave it a grade, ranging from A to F.

The second step, development of the web site to serve as an exchange for instructional materials, is currently underway. A group of students from Purdue University Computer and Information Technology are developing the structure of the web page. Design features under consideration by the students include secure (password protected) online database of agribusiness materials, including homework assignments, term projects, and case studies, to supplement available business text materials. Electronic forms allow faculty members to submit and edit their materials on the web site. The web site will include a search engine allowing users to search for materials by subject matter, grade level, type of homework assignment, the university, the instructor, etc. The web page will also use on-line discussion tools and other

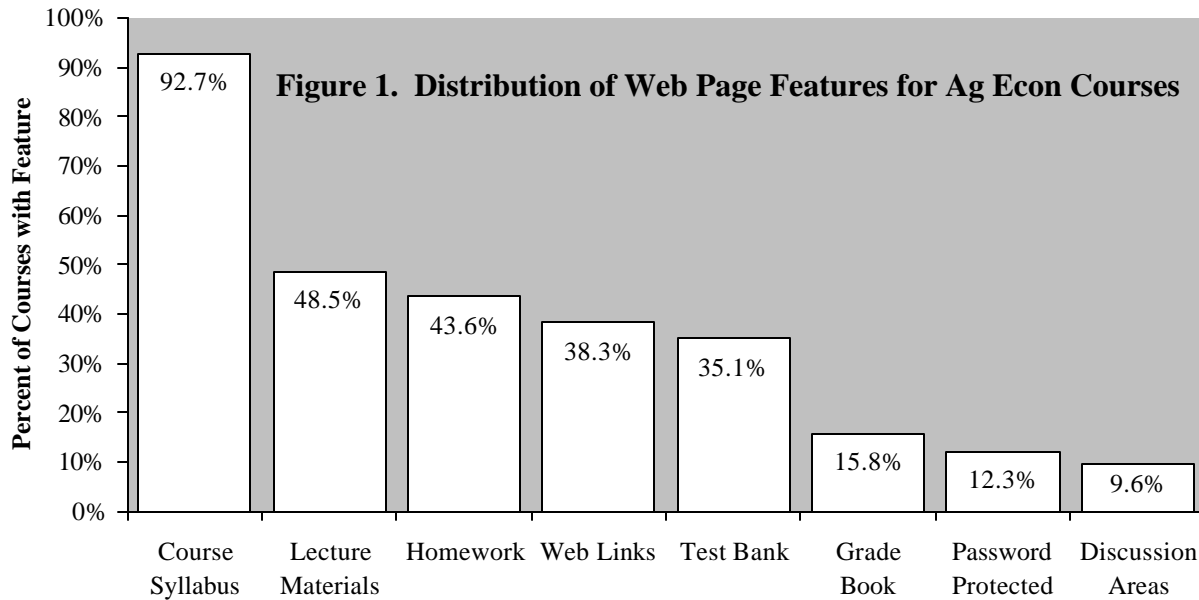
techniques to critique and assess others' work, thereby providing feedback to the developers of agribusiness course materials. In addition, the students are considering privacy issues and security of the web page.

RESULTS

The benchmarking of current agricultural economics web pages (features typically found), allows faculty members to assess the features of their web page. Features tallied include whether the page includes a course syllabus, lecture materials, homework assignments, old exams, links to other pages, an on-line grade book, password protection, and discussion areas.

Most class web pages (93 percent) are simply a course syllabus (Figure 1). Around half of the pages include lecture materials such as lecture notes or PowerPoint presentations. This may reflect a disagreement as to whether putting materials on the web discourages class attendance. Forty-four percent of the pages are used to provide homework sets, while 38 percent include copies of old exams or hints on preparing for an exam. Given explosion of web sites, it is somewhat surprising that only 38 percent of the pages are linked to other sites. Online gradebooks, password protected areas, and discussion areas or chat rooms are relatively rare.

A panel of three undergraduate students, viewed each page, and gave it a letter grade from A to F. For the most part, the students were not impressed with the work that is now on the web. They awarded 6 As, 54 Bs, 234 Cs, 47 Ds, and 1 F, for a cumulative GPA of 2.11. Two factors probably affect the letter grade. First, the paucity of features on most pages, such as the lack of links to other pages or online grade books, means that the look and feel of most web pages is something done with little thought or attention to design detail. Second, once students see well designed course pages, their expectations for other pages may climb for other courses as well.



DEVELOPMENT OF THE WEB PAGE

One means that agricultural economics faculty members can use to combat students low rankings of course web pages is to improve the quality of our instructional materials. The Internet offers potential as a means to develop a teaching resource web page specifically designed for agribusiness instructors. The creation of such a web page will supplement course materials from general business texts and add content to existing course web pages. Furthermore, those agribusiness instructors not currently using the Internet for instructional purposes could also submit or obtain materials from the web page.

Most web pages are built around hypertext links. Two weaknesses are apparent with this approach. First, if a hot linked site changes its web address, the hypertext link will fail to work. Second, while there are many search engines available, they are not designed to search a narrow set of materials.

In appearance, the Agribusiness Supplementary Course Materials web page will be indistinguishable from other web pages. However, rather than building web pages based on hypertext links, the materials submitted to this web page will be maintained as part of a database.

More developmental effort will be required to develop the structure of this web page than a traditional web page. However, once developed, the maintenance of such a web page is minimal. For example, by using forms, the individual faculty members will control the content of the material on the materials that they have submitted to the web page. In addition, since the underlying structure of this particular web page is a database, a search engine can be developed specifically for this web page, based on the fields included in the database. For example, an instructor could enter the web page and search for a senior level assignment in agribusiness marketing that uses regression analysis.

This project seeks to strengthen agribusiness education by tapping the experiences of the early adopters in web-based education. In particular, it has the potential to add agribusiness academic content to both general business texts and course web pages. However, having a course web page is not a prerequisite to participation. Any faculty member with materials in electronic format can submit or use materials from this web page.

The development efforts currently underway include creation of on-line forms to gather information from faculty who will submit materials to the web page, as well other faculty who use these materials. These forms will continue to be used throughout the project. For the group of faculty members who submit materials, information will be collected about:

- The ease of placing materials onto the Agribusiness Supplementary Course Materials web page.

- Counters will be used on each web page to determine the frequency of usage of the pages. In addition, since the web page is password protected, we will have ability to determine the number of times a particular person has entered the system. Thus, we can monitor frequency of usage, and perhaps contact some heavy and light users of the web page to determine the strengths and weaknesses of the web page.
- Discussion web pages will also be monitored, with comments summarized for faculty who submit their course materials.

For others who primarily come to the Agribusiness Supplementary Course Materials web page to seek ideas and content, we will seek completion of an on-line form that:

- Judges the usefulness of the content.
- The ease in reviewing the web page.
- The ease in downloading materials.
- The ease in communicating with the author about suggestions for using the particular exercise in their course.

CONCLUSION

The outgrowth of this work is to develop more effective means to disseminate teaching materials among agribusiness faculty. The goal is to create an awareness of the tool and demonstrate its usage. The hope is that audience feedback will identify modifications to the web page that will make it even more useful to agribusiness instructors.

SELECTED REFERENCES

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