

INSTRUCTOR'S NOTE: This feasibility report prepared in the Spring 2009 ENC 4260 course shows clear organization, logical development of key ideas, and attention to readers' needs for straightforward explanation and supporting detail. While the writer could have made minor improvements here and there, this paper demonstrates the type of effective writing that is the hallmark of a thoughtful, focused student. I have single-spaced this document for ease of processing, but your own submission should be double-spaced.

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ENC 4260 / T. Roberts, Instructor
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UNIVERSITY OF SOUTH FLORIDA SOFTWARE FEASIBILITY STUDY

INTRODUCTION

Introduction. With Universities now commonly offering online classes to their students, the importance of the software controlling these interactions has become increasingly important. This report is in response to rising concerns of University of South Florida's (USF) administrators over complaints expressed by students. The students have provided enough evidence to suggest the current distance learning software has become outdated and needs to be upgraded or replaced before the fall 2009 semester.

Background. USF hired Monolith Projects Inc. (MPI) to upgrade or replace the current software within the budget of \$500,000 and a six-month project deadline. This study was authorized by Martha Sterling of Monolith Projects Inc. (MPI) in response to the request of USF. The study will outline the best course of action to resolve the inadequacies of the current distance learning software, within the budget and time constraints.

This report will be a synopsis of the data gathered and used by MPI to understand the benefits, risks, and final decisions concerning the two courses of action available. Through the careful review of the data it became abundantly clear that upgrading the current distance learning software was the best option because of the time and money constraints outlined by USF.

FEASIBILITY CRITERIA

Criteria. Based on the requirements as outlined by USF the following conditions have been established:

- The project must not exceed the \$500,000 budget.
- The distance learning software must be ready for use by the fall 2009 semester.
- The system must be a reliable platform for the students' distance learning classes.

The Study. This feasibility report was created through the use of data collected from both USF and its students over the spring 2009 semester by MPI. The data was arranged into spreadsheets and collated to reflect similarities; from this MPI produced the updates necessary for the new

system. These updates were then compared with the steps required to complete each design scenario giving MPI a better understanding of the scope of the competing projects.

Budget. USF has agreed to a budget of \$500,000 for the overhaul or replacement of its legacy distance learning software. This amount will cover the software's life cycle which is made up of 5 phases: requirements gathering, analysis of data, design, testing, and maintenance. A large portion of the budget will need to be reserved for the maintenance of the product which is typical of software development as shown in Figure 1.

Timeline. USF is dedicated to having the system ready for students to use by the beginning of the fall 2009 semester. This gives MPI roughly six months to complete all the necessary phases of the project. Six months is an aggressive schedule for the development and deployment of such a large system, MPI has used the Software Development Lifecycle as a template for the timeline. With the requirements gathering completed the remaining four phases will each have just over a month to be completed on schedule.

THE OPTIONS

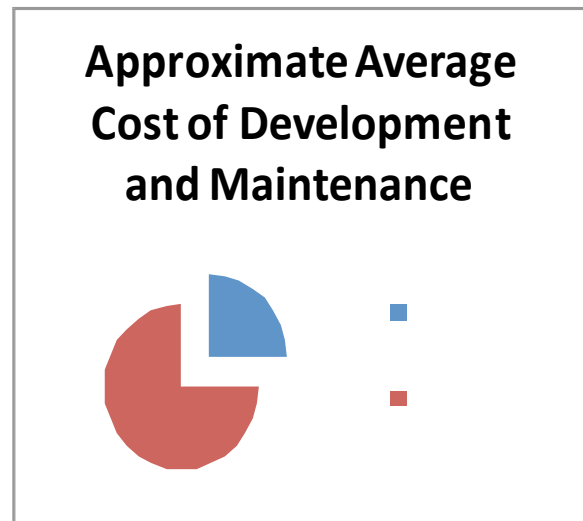
Legacy System. USF currently uses Blackboard as its distance learning software, offering students a way to attend class while not actually commuting to the school's physical location.

Figure 1. Average Software Costs (Schach, 2007)

While at its inception Blackboard was state of the art it has begun to show noticeable signs of strain under the weight of its users and the needed technology to support them.

Fix Blackboard. Information gathered suggests that current users of blackboard like it when it works. The system was not designed for the volume of people and data it currently supports. The ability to add the needed functionality and reliability to the current system has the following advantages:

- The software is already designed, only modifications need to be made.
- Users are already comfortable with it, so minor training will only be necessary.
- The time required to implement the modifications will be relatively short in comparison to a full software development.
- The software design costs will be relatively low due to the fact that most of the software is already developed.
- More money available for the maintenance of the software.



The study provided the following disadvantages:

- It would still be Blackboard.
- It might be stereotyped as a failure because of previous experiences with the system.

- It could inherit the problems that plagued the previous version.

A New System. The prevailing thought for some of Blackboard's users is that it is too broken to be fixed and that a new system must be developed from the ground up. The ability to influence the design of the new system could create a great product. The careful study of the data led to the following advantages:

- The system could be tailor made according to the school's needs.
- All the problems associated with the previous system would be void.
- The new system wouldn't have any previous problems associated with it, giving the distance learning department a fresh start.

The disadvantages for the complete design of the software are:

- The cost of developing a new system from scratch is higher than the previous scenario.
- The timeline to design a new system of this size would be 12 months, which does not fit into the timeline provided by USF.
- Extensive training would be necessary for all users of the system.
- The new system could be as bad as or worse than Blackboard.
- Less money for maintenance.

Alternatives. The alternatives available are commercially available prebuilt software that would then have to be customized to USF's specialized needs. While functional, these products were found to be unsuitable for the specific needs of USF (Captera Inc.).

CONCLUSION

The Best Course. After careful analysis of all the data collected, MPI has come to the conclusion that upgrading Blackboard is the only viable option. The timeline and budget as outlined by USF can only be matched by upgrading the current system.

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