Beyond Newsletters: Creatively Using Existing Technology to Aid Academic Support

Ms. Holly Helterhoff  
Director, LTU Scholars and Arts & Sciences Undeclared Advising Programs  
Senior Lecturer, Technical and Professional Communication  
helterhoff@ltu.edu

Dr. Julie Zwiesler-Vollick  
Assistant Professor, Natural Sciences  
jzwiesler-vollick@ltu.edu

Dr. Gladys Aviles  
Director, Academic Achievement Center  
gaviles@ltu.edu

Abstract - Technology offers tremendous opportunities to connect with students, while streamlining administrative tasks. Unfortunately, program budgets rarely have funds for comprehensive software solutions, and tight schedules prevent intensive training on new systems. Consider creatively adapting the technology you have now to aid academic support.

This 50 minute session will challenge program participants to rethink the technology already at their fingertips. Participants will learn how to audit their communication needs, and how to match those needs to tools they already have.

The speakers will present three brief examples of creative technology at Lawrence Technological University: online student advising preparation in Biomedical Engineering, the Academic Achievement Center’s Ask Online tutoring service, and the Academic Advising Databases. These solutions were created with minimal to no expenditure. Each example will indicate the challenge, the underlying communication issue, and the technologies used to solve the challenge.

Participants will receive worksheets to identify a specific issue in their workflows that could be improved with the creative application of technology. Participants will follow a framework (provided) to break down the issue into manageable sections, and strategies to match those needs with technologies on campus (common course management software programs, Microsoft Office, etc.) and beyond (Facebook, Smart Phones, etc.).

Introduction

Administrative tasks comprise a significant portion of the academic workday. Many of these tasks require communicating with students and sharing information with fellow faculty and staff. As methods of electronic communication have multiplied, so too have expectations for faster response time. The ease of prompt communication has been complicated by expanding expectations.

Technology can streamline these processes, but as department budgets get trimmed, so do hopes for updating electronic infrastructure. The latest software solutions can become expensive to implement, time-consuming to learn, and might require buy-in from multiple departments or offices, adding additional layers of complexity onto an already difficult situation.

Despite these challenges, many university offices have existing technology that can be creatively adapted with limited (or no funds) to streamline these administrative tasks. This paper will explore three examples of creative technology adapted by Lawrence Technological University faculty and staff, which can be customized to fit the needs of other departments at other institutions.
Rationale

All three of these solutions arose in response to actual needs. All three were developed independently, which points to the framework depicted in Figure 1: Creative Technology Matrix, below.

Figure 1: Creative Technology Matrix

The need drives the user to examine the best possible solution in light of the actual resources. The end result is inaction without the application of creative technology.

Process

Creative technology can be applied by anyone, regardless of technological expertise. The process requires (a) identifying the problem; (b) understanding the communication needed; (c) knowing the intended participants, in terms of what methods will work for them; (e) identifying available resources or the people who can help (which can include students).

The background for this approach arose in a conversation one of the authors had with a program mentor. His belief was that in terms of programming, if something seems unwieldy, just ask the students what they want. They will often point to a streamlined answer. That conversation was in regards to academic support. Soon after, the author was trying to communicate with a new student group shortly after the unexpected passing of its founder. When traditional methods were not working smoothly, one of the students suggested Facebook, which, at the time, was new to the author. Using Facebook dramatically reduced the number of time-consuming telephone calls and increased group identity.

While Facebook is not an appropriate solution to all communication needs, that incident illustrates the creative technology approach. The problem was twofold: a need for student-director communication that was fast and effective. The communication needed was often short, and frequently involved student responses and opinions. The audience was technology savvy and already using Facebook – only the director had to learn a new application. Finally, while the director had not considered Facebook, her student was the person “in the know” who quickly offered a workable solution.
Creative Technology Case Studies

Example 1: Advising Preparation - Using Classroom Presenter during advising to promote student engagement and increase efficiency

Academic advising is an important aspect of the student experience in higher education, which contributes to retention. Students can maximize the impact of advising by taking an active role in advising appointments. Academic advising at LTU is conducted by faculty, and a student typically meets with an advisor at least once a semester, although appointments might be more frequent.

Students often do not think they need to prepare or participate in the advising process, or if they do have a desire to be involved, they don’t know how to prepare. The ability to find information about the course of study, read the requirements, integrate outside factors (jobs, family responsibilities etc), and plan a schedule are important skills which students need to learn. Some students are able to tackle these challenges immediately, but others need to be taught how to navigate this process. Most faculty would like to develop a more personal relationship with advisees. Technology can help with both of these problems.

LTU provides all students in the Colleges of Arts and Science and Engineering with tablet PC laptops that allow students write on the screen with a stylus. One application which utilizes tablet PC technology is Classroom Presenter. Classroom Presenter works with PowerPoint, but also allows for the exchange of information between students and instructors in real time. While Classroom Presenter was developed to promote collaboration in the classroom, it can also be used during the advising process.

Prior to the advising session, students were given instructions not only on how to use Classroom Presenter, but also how to prepare for advising. Perhaps even more importantly, they were given a specific file which needed to be created. Then, during a typical advising session with Classroom Presenter, advisees act as the instructor (they open the file and control the navigation and inking of the documents) while the advisors act as the student (they can watch the students inking in real time and submit comments digitally). As an added benefit, both advisee and advisor can save a copy of the annotated file for future reference. Advisors can make notes about student’s unique circumstances or personal details to remind them of points brought up during the advising session. For future advising sessions, this reduces the time spent reviewing course of study, previous courses taken and special considerations.

A survey was given to students who participated in academic advising using Classroom Presenter. Though the sample size was small (thirteen students), results were overall very positive. Ten out of thirteen students felt that using Classroom Presenter during advising made them feel more involved in the advising process. Several liked the idea that both student and advisor had a digital record of what was discussed for future reference. Nine out of thirteen students indicated that they spent more than fifteen minutes preparing for their advising session. And, all students felt that the time that they used to prepare for advising was well spent. The ways in which students prepared are detailed in Figure 2: Student Preparation, below:
The faculty member conducting the study reported that students seemed more engaged and certainly were more prepared (though this may have had more to do with providing students a concrete task for completion than the technology involved). The faculty member also reported that the ability to keep a digital record of the advising session was extremely helpful and expedited future advising.

Example 2: Ask AAC Online - Enabling Wimba beyond the classroom for tutoring and academic support

Tutoring is an important element of academic success, but not all students can easily attend tutoring sessions. Eighty percent of our students commute, and many juggle work and family responsibilities. A campus survey in 2010 indicated that LTU needed to improve tutoring flexibility, especially for nontraditional students, but the already popular Academic Achievement Center (AAC) can only expand its hours of operation so far. Furthermore, expanded hours don’t necessarily solve the challenges of commuting and transportation.

The Director of the AAC met with other campus stakeholder to brainstorm solutions. She determined that the AAC would be able to enable Wimba for online tutoring. Wimba is an online collaboration tool which many educational institutions (including Lawrence Tech) use for online education. Wimba integrates with course content delivery systems, such as Blackboard or the open-source Moodle. Because Lawrence Tech subscribes to Wimba, and our students have laptops, adapting the module required no additional set-up cost, making it an appropriate solution for this pilot program.

Students begin by filling out a web form created using Google Docs on the AAC web page. The form asks a number of targeted questions to evaluate the student’s tutoring needs. The form asks if the student is comfortable using Wimba, or if the student prefers email. The form is directed to the appropriate tutor, and a response is received as soon as possible (maximum response times are 24 hours on weekdays, and 48 hours on weekends).

This pilot is in an early stage, but initial results appear promising.
Example 3: Improving advisor communication with the Arts & Sciences Undeclared (ASUD) Advising Database

Academic advising is an important faculty responsibility. Too often, communication occurs between the advisor and the advisee, but not between advisors and other support stakeholders who can help with retention efforts. When the College of Arts & Sciences decided to change its advising model for at-risk students, they looked to the University of California, Berkeley’s Biology Scholars Program (BSP) for a solution. The Berkeley model uses an innovative case-managing system for advising, where each student’s experience in the program is tracked on an individual level. Advisors share concerns and solutions with other advisors.

Advising software currently exists, and many systems integrate with transcripts and course scheduling systems. This approach is ideal; however, it was beyond the budgetary scope of the ASUD program. Advisors tried creating a log system by creating individual Excel worksheets for each student and saving the worksheets to a shared drive. This system was unwieldy for several reasons: (a) setting up the worksheets was time-consuming; (b) multiple users trying to save the worksheets to the shared drive was inconsistent at best; (c) the shared drive could only be accessed on campus; (d) reading the logs was inconvenient and data was being missed.

A new approach was needed. The worksheets were converted to a database system. Instead of using the expensive database initially researched, one of the advisors worked with a pair of graduate students in the computer science department to develop a low-cost database for advising. The database records feature the advisee’s contact information, a photo, intended major, and a complete contact log. Now advisors can instantly access a student’s advising record. Records are flagged when students need to meet with an advisor for midterm feedback to pick courses for the next semester. The director can run reports. Additional support staff can access the database if permission is authorized. The database can be accessed by advisors off campus.

This solution had a small start-up fee of $1000 for stipend costs. That fee was a minor investment compared to the cost of a more mainstream solution. The database so improved advisor communication that the database was expanded and institutionalized to the entire First Year Advising program. Now the $1000 investment, when divided among students served, is an incredible return.

Final thoughts

The three case studies presented here involved a simple process: (a) identifying the problem; (b) understanding the communication needed; (c) knowing the intended participants, in terms of what methods will work for them; (e) identifying available resources or the people who can help (which can include students). Using this process does not involve technological savvy, just creativity and a willingness to experiment.

Consider the administrative processes in your realm which could benefit from streamlining and the application of creative technology. The solutions might be available at your fingertips.