

Instructional Technology Innovation in the Liberal Arts Classroom: A Conversation with the Maryville College Faculty Instructional Technology (FIT) Fellows

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Abstract

Maryville College's first Faculty Instructional Technology (FIT) Fellows, who received funding and release time to develop technology-based instructional materials for their courses, are developing and implementing exciting projects in History, Religion, Freshman Seminar, and Political Sciences courses. In this paper, the Fellows describe their projects, share their experiences, and reflect on the impact of teaching and learning with technology.

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Introduction

[Maryville College](#) is a four-year, independent liberal arts college located in the Appalachian East Tennessee town of Maryville. Enrollment is approximately 1,000 students most of whom are full time. There are 67 full-time faculty members.

In 1998, the faculty at Maryville College developed a “Vision for Instructional Technology” which conveys how technology can be used as a tool to further the [educational goals](#) of the college. In planning for and implementing instructional technology, Maryville College seeks:

- To engage students meaningfully in active and interactive learning situations and to provide access to a greater variety of learning opportunities,
- to ensure that all faculty and graduates can use information technologies to successfully access, critically evaluate, and creatively use information in teaching, learning, and research,
- to integrate new technologies and traditional styles of learning to enhance communication and to facilitate the learning experience,
- to develop faculty expertise in and vision for the use of instructional technology in their teaching and research while affirming the variety of learning styles and pedagogies that currently exist, and
- to help faculty and students respond with capability and discretion to changing societal notions of what constitutes minimal, necessary technological competence for an educated person.

Along with the vision, the faculty Instructional Technology Task Force developed a detailed five-year plan which includes the equipment, software and personnel needed to realize the vision. The plan was put into the form of a grant proposal and submitted to the U. S. Department of Education.

The vision is now rapidly becoming a reality thanks to a five-year grant from the U.S. Department of Education, Title III of the Higher Education Act, which commenced in October 1999. The annual award of \$350,000 enables the college to purchase contemporary hardware and software tools, and to support a comprehensive program of faculty development through the funding of two full-time staff members.

Through the [Instructional Technology Initiative](#) every faculty member received a new computer and the Instructional Technology Center, housing a myriad of special computer-related equipment and software, was established. There is a “smart” classroom in each building and will be up to 10 portable “smart carts” which can be used in many classrooms to connect to the Internet and use modern projection equipment and software. Every department will receive specialized equipment and software for use in the instructional program. Finally, two new computer classrooms will be installed most likely using new wireless technology.

The heart of the program, however, is faculty development. There are multiple avenues for faculty development including group workshops, one-on-one assistance and support, and the [Faculty Instructional Technology \(FIT\) Fellows](#) program.

The Faculty Instructional Technology (FIT) Fellows Program

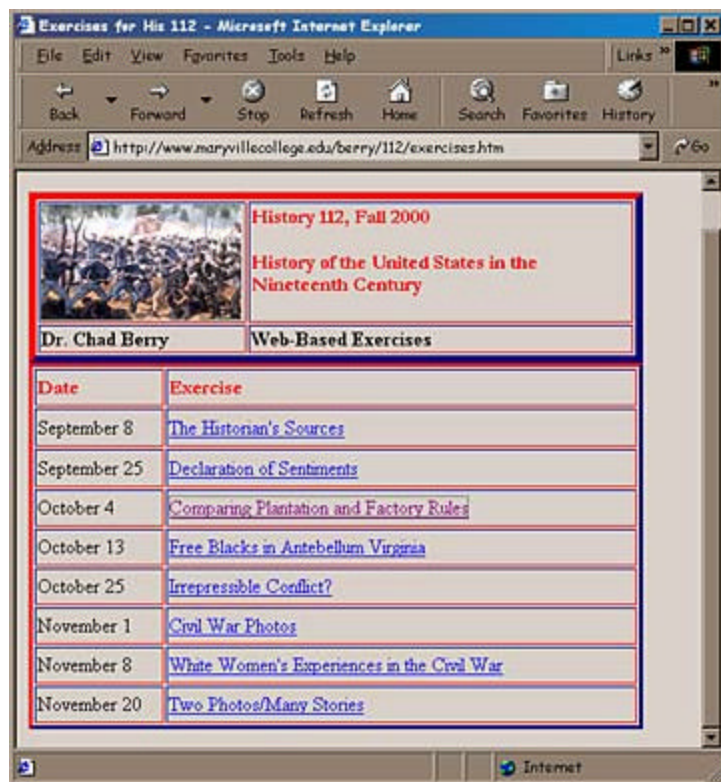
The FIT Fellows program offers faculty the opportunity to develop specialized technology applications for use in their teaching. Fellowship components include a summer stipend, one course release time, and funds for travel and equipment purchases. The Maryville College Faculty Development committee selects FIT Fellows based on a competitive review of proposals. New Fellows are selected each year and by the end of the grant period 46 of Maryville’s 67 faculty will have had the opportunity to participate.

The first FIT Fellows were selected in April 2000 and have spent the last year developing instructional materials and integrating them into their classes. Innovative projects are underway in Religion, History, Political Science, and Freshman Research Seminar courses. In the pages that follow, each FIT Fellow will describe their project and share reflections on the meaning of the project for them and their students.

Developing a New Media Classroom - Chad Berry

My project this past year has been twofold. I attended the New Media Classroom workshop at Vanderbilt University titled “The Blues, Bluegrass, and Blue Suede Shoes: Southern Culture in the New Media Classroom.” Once there, I realized that I would inject instructional technology into two courses that I teach: the [History Survey](#) and the [Fall Freshman Seminar](#).

In the nineteenth-century U.S. survey, I began by putting all course materials on a class website (anchored, of course, on my own home page). The main change involved a number of web-based exercises that we would complete together, as a class, in the College’s computer lab. Generally, students are paired on one computer so that they can work collaboratively. I’ve continued this approach this semester in my [Twentieth-Century U.S.](#) course.



In the fall freshman seminar, I used the online writing program, [Speakeasy](#), to build and strengthen the kind of community that already exemplifies a small, liberal arts college experience. Over the summer, I sent my incoming freshman a letter introducing myself and explaining how to use Speakeasy. Their first assignment was to log on and introduce themselves. The response was terrific. On their first day on campus, students “virtually” knew one another, and it was inspiring to see them meet each other face to face after corresponding with one another for several weeks. Once classes began, I used Speakeasy to bridge the gap between Thursday and Tuesday by posting a discussion question and

requiring students to respond to me by midnight Sunday and to at least two others by midnight Tuesday. Both the web-based exercises and Speakeasy worked splendidly.

Impact on Student Learning



I believe my students have taken a renewed, more critical approach to learning because of their instructional technology experiences. Up front, I was quite candid with them, explaining that the whole purpose of my fellowship was to explore ways that instructional technology could enhance learning. At the end of each web exercise, we assess the experience by discussing if and how learning was enhanced and then examining the way technology supported the endeavor. The students are quite willing to speak honestly about the experience, yet the overwhelming opinion is that learning is indeed enhanced.

Impact on My Learning

My teaching has become reinvigorated in the process. I was at the point in my career when I was hitting my stride in the classroom; I was even becoming “comfortable,” if not a little complacent in the classroom as committee assignments and other non-teaching responsibilities mounted. Exploring the ways that instructional technology can foster learning has taken away any complacency and reaffirmed my commitment to being the best possible teacher.

Surprises

One of the surprises I’ve learned is that students have moved far away from liking technology simply because it’s “fun.” My web assignments are tricky and challenging. Often, they force students to reconcile with ambiguity. Students have had difficulty with them in the past, yet they generally come to realize that they are learning something in the process. Using technology to teach the uncertainty and ambiguity of interpreting history has been a wonderful thing.

Future Plans

The only thing I’ll do differently next year is inject more of the same, along with, of course, adding new technologies as they come online. Instructional technology is

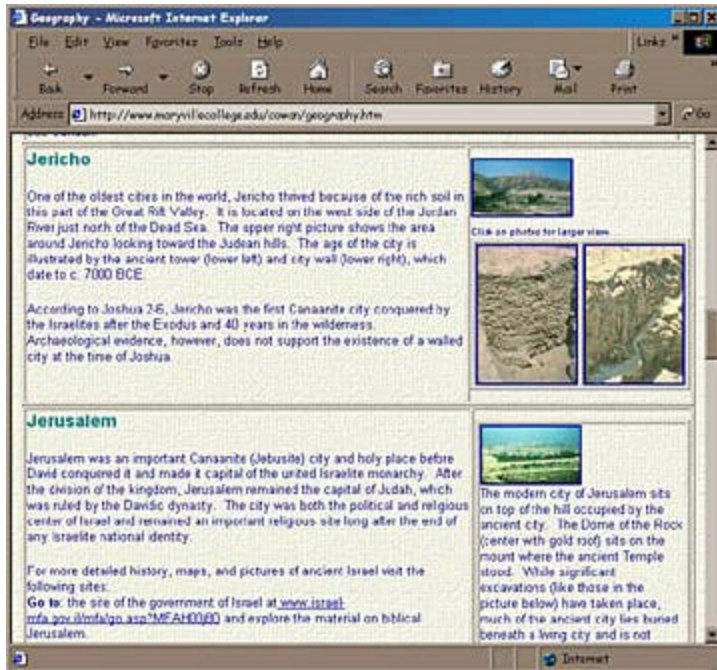
dynamic, not static. I'll continue to work to evolve my teaching and use of technology. It's impossible, I've realized, to go back to "old ways."

Building a Bridge with Technology - Peggy Cowan

As part of its General Education curriculum, Maryville College requires all students to take a course in Biblical Studies, either Introduction to the Old Testament or Introduction to the New Testament. This project is related specifically to [Introduction to the Old Testament](#), although some of the materials are relevant to New Testament study as well.

A primary goal of the Biblical Studies courses and one of the major challenges for the instructor is enabling students to relate the Old/New Testament to its cultural context, i.e. the historical events and social and political realities that shape the writings. Students tend to assume that the narrative setting and historical context of the author are the same or that the intended audience is the contemporary reader rather than an ancient social group. In order to help students make the distinction between narrative setting and historical context and to recognize the vast differences in the biblical world and their own, significant instruction in history, social structure, geography, and archaeology is essential. Once those differences are clear, the task is to help students place the ancient texts in their ancient context and then to interact with them in a meaningful way. Bridging the gap between the worldviews of the modern western world and the ancient near eastern world is a major challenge.

Another issue that is important in teaching Biblical Studies is the differences in academic preparedness and learning styles of students involved. Because all students take the course at the freshman or sophomore level, these differences have a significant impact on their performance. Using web-based tools enables the instructor to provide students a variety of types of learning experiences that are not available through traditional texts, lectures, and classroom discussions.



This project consists of a web site that seeks to use pictures that illustrate the character of the terrain, in general, and specific geographic features, in particular; pictures that illustrate terms in a glossary; links to websites that provide additional pictures and illustrations, exposure to archaeological expeditions, maps, and other information; and a timeline that connects specific writings with historical events and periods. In addition, the website provides basic information about the course, a syllabus, study questions, exercises related to specific topics, resources on study skills, and a description of assignments.

Impact on student learning

Students have indicated that the visual nature of the website resources has been beneficial to them in recognizing the vast differences between their own world and that of the text. During the two semesters that the project has been in place, I have had students complete a web exercise and then write a paper about their learning experience. The kinds of things that they describe indicate that the use of the site has been very beneficial. I no longer have students talk about the wilderness as if it were the Smoky Mountains!

Impact on my learning

My comfort level and facility with technology in general, and the internet and websites in particular, has increased tremendously. I have learned a great deal about the kinds of information and tools that are available on the web and have increased in my understanding of how they might be useful in teaching and learning. It has encouraged me to be more imaginative and less text-based and linear in my approach.

Surprises

I have been surprised by the extreme differences among students in their facility with technology. Some of them need a lot of direction in order to negotiate the website effectively. Others are quick to follow and make suggestions for improvements. I have also been surprised at the lack of critical evaluation of material that they find on their own, even when that material obviously does not reflect the critical analysis we have

discussed in class. A very positive surprise has been the number of students who have been excited about the site and expressed their appreciation for a professor developing such a resource for them.

Lessons Learned

I am learning to do more introduction of the site at the beginning of the course and to provide some opportunities outside of class for students to explore the site with some help from a student tutor or me. I am also learning that exercises and web searches need to be carefully structured, because students are much too accepting of the material they find on the web.

Future Plans

Future plans include enhancing the current website, particularly the glossary, which remains incomplete to this point. I would also like to continue to research and develop a list of useful links and ways to integrate them into the course to make the readings more meaningful. Beginning in the summer of 2001, I will be working on a collaborative [ACA](#) project to develop a set of learning pathways related to this course. Those will provide more focused learning experiences for students. I have already been using the website to publish a syllabus, assignment sheet, resource page, and other materials for all of my courses. In particular, my upper level Biblical Studies course is using a website specifically designed to accompany courses about Jesus and the Gospels. My hope is that exploring the possibilities offered by instructional technology will push me to constantly revisit my approaches to teaching and keep my imagination and creativity alive.

Additional Thoughts

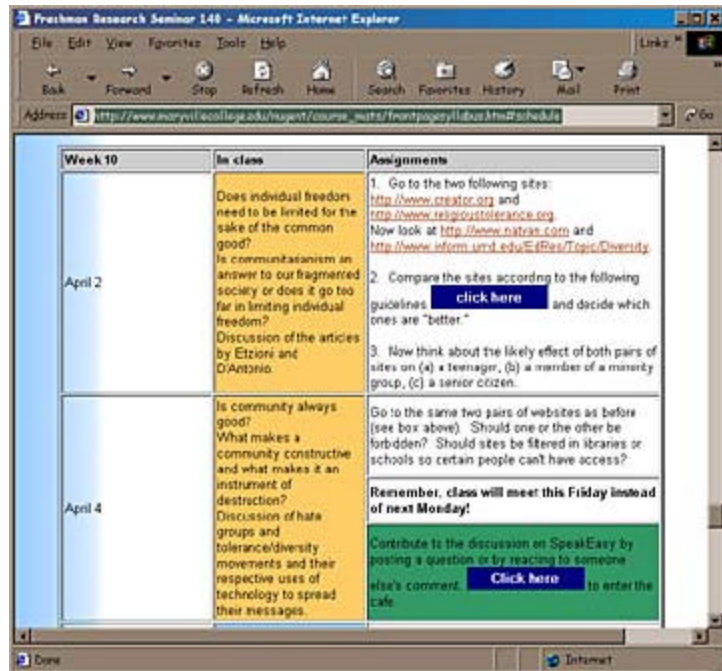
Participating in the FIT Fellowship project has been enriching for a variety of reasons. As mentioned above, I have grown tremendously in my facility and comfort with technology generally, and I am pleased with the impact on student learning thus far. However, I view this as a beginning point and recognize that, if technology is truly to enhance learning, I will need to continue to explore ways in which it can enable students to meet the educational goals of the courses I teach.

Making Connections in a Freshman Research Seminar - Chris Nugent

My project infuses instructional technology into the [Freshman Research Seminar](#). The seminar is a two-hour general education course taught in 11 sections by an interdisciplinary group of faculty. All first year students take the class in the spring of their freshman year. I had two purposes in mind for the project. First, I wanted to create an *electronic space* for seminar faculty to exchange ideas, share best practices, and support colleagues who teach the course for the first time. My second goal was to provide an *electronic commons* for students and instructors to continue communicating beyond classroom time. The electronic space for faculty consists of a password protected materials archive and an online discussion forum. The materials archive provides access

to section syllabi, lecture notes, handouts, and other materials that faculty contribute for all to use. It replaces a stack of printed materials that I, the faculty coordinator for the group, would collect, keep current, photocopy, and distribute to new faculty.

The student electronic commons includes materials developed for my course section, such as the syllabus, a reading guide, an assignment guide, a research guide and links to online research support materials developed by the library. The syllabus is linked to the other online materials and includes several homework assignments that utilize web resources. There is also an online discussion forum for my section to continue discussions outside of class time.



Impact on student learning

It is a little early to say how the project impacts student learning since I am just four weeks into implementing it. Students seem at ease with online access to classroom materials. We are just now conducting our first online discussion and students who have not spoken up in class are contributing well-reasoned arguments. Where I see the greatest impact is during class. I am teaching in a technologically "smart" classroom that allows me to use a variety of online materials when I need them. For example, I pull up the syllabus frequently to help students see where we are and how the particular class session fits into the whole of the course. Also, I use PowerPoint to demonstrate concepts, log onto library materials to teach research strategies, show websites of varying quality to demonstrate critical evaluation skills of online materials, and plan to conduct a live chat session with a librarian during class to show students how readily available help is to them as they complete their research assignments.

Impact on my learning

I am having more fun preparing for class and during class than I did when I only used an overhead projector and blackboard. I use techniques that appeal to different learning styles more than in the traditional classroom where I relied more heavily on lecture. I also find that I am not afraid to try out new technologies on my own. The project has given me confidence in my own ability to develop online materials and has made me a more critical consumer of online products developed by others.

Surprises

Converting the materials for the online archive was more difficult and time consuming than I had anticipated. Since I did not become proficient in HTML but rather use the editor FrontPage, I had many issues with conversion and formatting of documents. Also, my database of materials grew rapidly and I had to pay much attention to file structure. I found that I could not include some useful materials in the archive because of copyright restrictions. It had been no problem to make photocopies and distribute those to faculty, but publishing that material on the web is a different matter altogether. At first, I did not take advantage of the visual possibilities the web offers. My product, being very text-based, was visually rather unappealing. Using color-coding and linking to external sites helped make it more interesting, but I know that my product cannot compete with commercially produced materials in terms of "entertainment factor."

Lessons learned

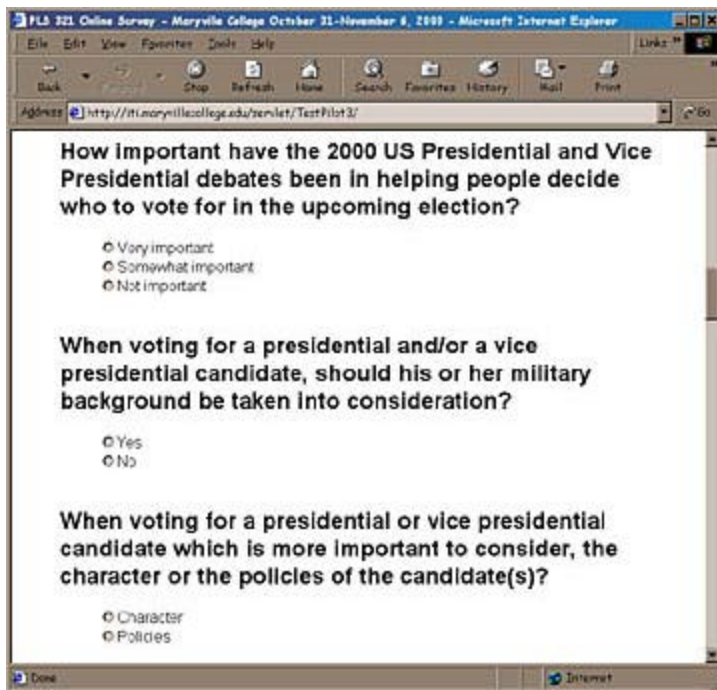
Using an editor to convert text materials into online format can be quite tricky and frustrating. If I ever built another large text collection, I would scan the original text or work with Adobe Acrobat. I would not spend much time on trying to enhance the originals with formatting and internal links. A course management system can do what I tried to do and much more. I would probably use such a system in order to save time and to produce a product that is easier to navigate than the one I created with FrontPage. Teaching with technology is more time consuming than teaching in a traditional classroom. It takes longer to prepare materials and my expectations of what materials to prepare are higher. Rather than showing a video clip I prepare a PowerPoint presentation with texts, images and sounds that I locate on the web and integrate into slides that must be legible and appealing. I am also learning as I teach this class that students bring a variety of technical skills. To some, technology seems like an additional barrier they must overcome in order to keep up with the class. Students need detailed instruction on what to do, and some students need personal assistance in accessing online materials. I also have to make special arrangements for a student with low vision. If I ever developed online course materials again, I would make a more conscious effort to make them ADA compliant.

Future Plans

I might experiment with software that allows virtual office hours. The library has just implemented a virtual reference desk where students can ask for research help in real time. This could be an effective way to provide remote help to students as they are working on research and writing projects. Another step towards technology integration would be to require online submission of assignments. Students could also use PowerPoint to present their research projects to their peers.

Voting & Polling Online - Mark O'Gorman

Students are exposed to survey research and public opinion polling in a variety of ways through telemarketing and polling results presented by the media. But with the advent of the Internet and the ability to use the World Wide Web (WWW) as a means to deliver surveys, the desire to capture and use this new technology in the classroom is tempting. Electronic and/or web-based voting, “Cyber-Voting”, is quickly gaining use by businesses, media organizations, and political institutions. In April 2000, Arizona provided an on-line option for voters in its presidential primary, the first state to use such technology for an American election. Could some version of this technology be used in an educational setting as a means of teaching survey research, or to poll a campus community on a variety of issues?



In the Fall 2000 semester, I implemented an on-line internet based survey mechanism, or “virtual voting booth.” Students in my [American Political Process](#) course used this tool to construct and conduct an on-campus, election-year College-wide poll and assess its results with relation to the 2000 US Presidential election. Teaching goals of the course were amplified through this project. The election process became more vivid, exposing students to the complexities of survey design, question wording and polling analysis as part of campaign strategy. Students were empowered to construct their own polls and assess surveys and results in both qualitative and quantitative ways, furthering their skills enhancement. The class surveys were posted to the [College Voting Project](#) web site.

Polling results mirrored the closeness of the actual 2000 US Presidential election, where one vote separated winners and losers among candidates selected in the survey. The ability to use the online survey data added one more “layer of learning” onto an already extraordinary election and post-election drama between US presidential candidates Bush and Gore.

A second phase of the development of this on-line voting presence at the College included co-designing the site and co-authoring additional polls with a senior student completing her thesis in her double majors of Environmental Studies and Political Science. The student, Katrina Atchley, used the survey mechanism separately to post questions dealing with the impact of environmental issues on the 2000 US Presidential election. Ms. Atchley's polls, conducted earlier in the semester, provided a test bed for the project, allowing pedagogical and technical questions to be reviewed positively and efficiently as the methodology section of the thesis.

Impact on Learning

Incorporating the FIT Fellow Online Voting Project into the course provided added applied and experiential richness to the course. Polling data from news organizations and polling services in the days leading up to the 2000 election was reviewed with a more discerning eye by students. Additionally, the experiential nature of constructing a poll helped students recognize the large amount of resources committed to campaigns. Early feedback from students echoed their appreciation to be exposed to new technologies, and gain a new understanding of elections and the Internet.

Surprises

It was surprising to find no central repository on campus for every student email account. Between different administrative offices creating accounts, students developing their own email addresses with private Internet Service Providers (ISPs) and gaps in organizing data, creating passwords for email accounts and setting up email address lists to send polling reminders became time-consuming. Fortunately, working at a smaller college allowed our class to gain access greater-than-average systems administration resources to resolve this issue.

Lessons Learned

The class gained a greater understanding of political issues and the use of quantitative information for a variety of uses. Because of the tumult surrounding the 2000 election, it was difficult to separate what Online Voting Project activities have more impact vis-à-vis the post-election Florida controversies. Next time, being more thorough in explaining the polling project, even at the expense of class time review topical material, would increase its utility within the course.

Future Plans

First, it is the expectation of each round of FIT Fellows at Maryville College to disseminate their knowledge to their colleagues and the larger community. Additionally, I hope to use the Online Voting Project technology in every course I teach to have students produce polls on course-related issues. Finally, the hope is that campus groups, student organizations and other potential users will utilize this technology.

Additional Thoughts

Two things. First, this project and class was conducted in a new “smart” classroom at the College, which was outfitted with computer technology, networking and projection abilities. This clearly added to the positive feedback of the course. Further use of this new classroom needs to occur in order to determine what projects and/or courses can best utilize this type of resource commitment. Is a “smart classroom” better than (just) a laptop and a computer projection system? Second, this project would not have come close to being accomplished-or with the success students suggested-without the work of Gina Roberts, Karen Wentz and the ITI staff. The ITI at Maryville College is a model of high-quality service dedicated to faculty-instructional assistance. It is a model that all colleges should replicate.

Conclusion

In addition to integrating technology into teaching and learning, these four FIT Fellows are enthusiastically sharing their knowledge and experience with colleagues at Maryville, visitors to campus, and at regional and national conferences. As the 1999-2000 FIT Fellows continue with their projects, they will be joined by the 2000-2001 Fellows who were selected in December 2000. These eight new Fellows are also excited about their projects and the positive impact they can have on teaching and learning.

Maryville College is truly being transformed as appropriate instructional uses of technology are spreading throughout the campus!
