MTSU mobile app still student run

Members of the 2017-18 MTSU Mobile App team are, l-r: Nzubechukwu Molokwu, team leader John Peden, Bishoy Boktor, Madison Karrh, Kate Lovett, and Jesse Offei-Nkansah. New members added to replace those who will be graduating this year are (not pictured): Lucas Remedios, Justin Barker, Elijah Dangerfield, and Thai Do.

When MTSU Computer Science major John Peden tells people he works on the University's mobile app, they sometimes assume he is an intern or student employee working for the developer.

"They think that maybe we're working underneath the developers, but I explain that we pretty much do everything," Peden said. "We have guidance . . . but other than that, students started the app, we maintain it, we add features, we de-bug it, we push it to the store, we manage all of the accounts, we work on the servers that back the app. So it's real-world, professional experience working on an enterprise app.

"And when people know that they say, 'that's actually really, really good.'" Peden is leader of a group of 6–10 students who are carrying on a seven-year tradition at MTSU.

In 2011, a group of MTSU Computer Science students approached the Information Technology Division with a proposal to develop a mobile application for the University, volunteering to work on the app.

ITD leadership listened to the proposal and thought it was a great idea.
Six educators receive ITD grants renewed after five-year break

Faculty Instructional Technology Innovation grants have been awarded again this year after a five-year break.

ITD reallocated funding to bring back this grant program for support of innovative teaching/learning environments.

Proposals were solicited in November, and the Instructional Technology Development Committee after a very difficult review process recommended proposals to the vice president for Information Technology/CIO for funding consideration.

Three proposals were chosen:

- **Eric Detweiler, Department of English**—Portable Resources for Teaching With Video Games
- **Sheri Selph, Department of Art and Design**—Adding UI/UX Large-Format Design to the Graphic Design Curriculum
- **Stephanie Dean, John Merchant, Marie Elliot, and Alison Sultan; Department of Media Arts**—Immersive Storytelling Techniques and Technologies.

Work will be this spring on the implementation of these projects, and reports will follow as to how these new innovative ideas helped to support student learning and success.

Detweiler said he applied because he was preparing to teach two sections of ENGL 2020—a sophomore-level literature class—with the theme “Video Games and/as Literature.”

“Digital media is a big part of my research and teaching, and as far as I’m concerned, some of the most interesting stories being told right now are being told in the form of video games,” Detweiler said. “I think English courses are a ripe setting for analyzing, discussing, and writing about those stories.

“But playing video games requires some technological infrastructure, and liberal arts departments are often overlooked when it comes to developing that infrastructure.

“I think there’s a sense at many universities that the only materials English professors need are books, pens, paper, and maybe Microsoft Word if they’re ambitious. I love books, but I’m also interested in preparing students to see how the work and thinking they’re doing in English courses can apply to the digitally saturated world and professions they’ll face when they graduate.”

He received about $2,600 to acquire hardware and software for students to use to play and design games in the course—hardware that can do some things the computers in our classrooms aren’t built to do.

“Especially as companies like Google begin to realize what they want in employees dovetails with the skills that liberal arts majors develop during their studies, I hope this grant will help me prepare students in liberal arts courses to see the benefits of such courses and, when they need to, be prepared to articulate those benefits in ways employers will understand,” he said.

It will pay for laptops built for playing video games, some gaming consoles, and some other equipment that will let students collaboratively play through, analyze, document, and design video games.

"As far as I'm concerned, I couldn’t teach the course I'm teaching this semester without this kind of support... I think these grants will allow instructors and MTSU to design and implement inventive and experimental courses and assignments that they otherwise wouldn’t." Assistant Professor Eric Detweiler, English Department
Creating audio version of print documents provides choices

In today's fast-paced world, you may have found audio-books to be a valuable resource.

Audio versions of print have an advantage. Whereas print requires singular focus, auditory information is accessible while driving, running, walking, skiing, leaping... you get the idea.

Speaking of accessibility, creating an audio version of long print documents introduces some Universal Design for people that might otherwise have difficulty with the print document due to cognitive, motor, or visual disabilities.

You may be thinking, “What about people that cannot hear the audio file that I worked to create?” I'm glad you asked! The original document from whence the audio file was created would be accessible to a person with a hearing disability.

By creating the companion audio file, you're giving the end user the choice to read the document in a traditional way, or that person might prefer to listen to the long document that he or she would have otherwise avoided because of a lack of time and/or focus.

You would just want to make sure that the original document is created with sound accessibility practices so that users of assistive technology get the same choice between formats.

To create audio files from documents:

1. First, [register for a Kurzweil account](#) (Make a note of your generated Kurzweil username and password. You can change these at the [Kurzweil website](#), if you wish.)
2. Download [Kurzweil for Windows](#) or [Kurzweil for Mac](#)
3. Log into the Kurzweil software with the username and password generated from the Kurzweil registration page
4. Open your document within the Kurzweil program
5. Select [Zone Edit](#) so that information is read in the appropriate order
6. Save the document as an RTF document, but continue editing within Kurzweil
7. Images will not come through the RTF conversion. Type out a description of any images at the spot in the text where they occurred in the original document.
8. Use Kurzweil's spell check function (within the Edit Menu) to correct any recognition errors
9. Read the document with the Play button to make sure that a suitable voice and reading speed are selected (I like to use Tom at 170 words per minute)
10. Go to the File menu and select “Create Audio File...” to export an MP3 of the document
11. If you have any difficulty with the process, I've created a [video demonstration](#).

**Innovation, continued from page 2**

“For instance, one of the games they'll be playing is called *Never Alone*, which is an Inuit myth told in video-game form. Another is *Night in the Woods*, in which you play as a college dropout returning to her hometown in the Rust Belt, reconnecting with friends and family and discovering that something mysterious is happening in the woods outside town,” Detweiler said.

“Both games require a decent amount of processing power to run, and the equipment I'm receiving through the grant will allow students who don't have high-octane computers at home to be able to play these games in order to engage and analyze their narratives.”

Later in the semester, they’ll be using software like Twine, a program for designing games and interactive fiction, to build their small-scale games that make scholarly arguments in game form.

He also will conduct a pilot study to gather information about students’ gameplay habits, available technology, and humanities-oriented digital courses and projects they would be interested in pursuing.

“Finally, I want to use the findings from that study to pursue larger external grants for a more permanent media lab for liberal arts professors and students. I envision a versatile, modular space where students could work collaboratively on digital humanities projects and engage with digital media even when class isn't in session,” he said.

He said the grant program is much-needed and encouraged colleagues to take advantage of it.

“As far as I’m concerned, I couldn’t teach the course I’m teaching this semester without this kind of support. At the very least, it would be a much more simplified and less ambitious version.

“Coming at this as someone whose research focuses on rhetoric and writing pedagogy, I think these grants will allow instructors and MTSU to design and implement inventive and experimental courses and assignments that they otherwise wouldn't,” Detweiler said.
Mobile app team, continued from page 1

If the idea worked, not only could it provide an opportunity for the students to get real IT work experience but it also could produce a viable app for the University instead of MTSU buying an off-the-shelf mobile app product.

These student volunteers soon turned into a formal group employed by ITD as the MTSU Mobile Development Team.

The workload is divided up based on experience, interest, and time available.

“We all kind of support each other because we all have varying school schedules,” said app team member Kate Lovett, also a senior Computer Science major. “Say there’s one week where I have a big project and a whole bunch of exams so I might not put in as much time. So we all kind of help each other out and work harder one week, and maybe a little less so the next week.”

Being part of the team is a source of pride and a great resume enhancer.

Bishoy Boktor, a junior on the app team, said he was visiting another major university recently and learned its mobile app had been developed by paid professionals.

“I think we should wear it as a badge of pride. Their mobile app was done by professional developers and it is not as good as ours. The fact we are working on this app and it is student-led ... and you look at all of the other apps done by professional developers for universities, and ours is very similar if not just as good,” Boktor said.

“We know the kinds of things students really want out of an app that maybe a professional developer might only think of major things, like classes, a map.”

While the first team members have long since graduated and moved on to great jobs in the workforce, the team has continued on each year with more MTSU student developers.

As members graduate from MTSU, the existing team participates in interviewing and hiring the replacement team members.

That took place before the start of Christmas break, as four new members were brought on board to replace current members as they graduate.

The experienced team members will share their knowledge with those new ones and work to get them up to speed on the development environment.

Each iteration of the team has continued to maintain the University’s mobile app and develop new features for both iOS and Android devices. Much time has to be spent making sure the app can function with each newly released operating system on both platforms.

The team conducts its own meetings with campus constituents to discuss new projects and analyze needs.

The team meets weekly with Lisa Rogers, ITD’s senior associate vice president for Information Technology, to review project progress and discuss plans for new features and improvements.

The 2017–18 team members are Peden, Jesse Offei-Nkansah, Bishoy Boktor, Kate Archer, Madison Karrh, and Nzuchechukwu Molokwu. New members brought on in January to replace current members as they graduate are Lucas Remedios, Justin Barker, Elijah Dangerfield, and Thai Do.

Remedios, a sophomore, is excited about the opportunity to join the team after making the cut out of 30 students interviewed.

Even interviewing for the team is a great real-world experience, members said.

“I came in for a technical interview, so the team members basically asked programming questions and they put me on a whiteboard marker and I had a little whiteboard marker and I was solving the problems on the whiteboard. I think it was a really cool experience because the interview was conducted by students—it’s really the team picking who they want,” Remedios said.

Lovett said the team is always looking for improvements and additions. Lately she has spent a lot of time making the app more accessible with dynamic text and voice to text features.

“Last fall I went through several interviews and they were all very impressed and interested in the fact that we have a mobile app that is run by students. I had one company tell me they keep an eye on the MTSU student mobile team because they like the people who come out of it,” Lovett said. “It catches people's attention, which is really, really helpful when graduating and joining several other people in interviews.”
Course design can be thought of in the same way. With the help of experts on an instructional design team, the idea that starts with the faculty can grow into a pedagogically sound, highly engaging, multimedia-rich learning environment.

In an instructional design team:
- The faculty member(s) serves as subject matter expert, establishing learning outcomes and providing content leadership.
- The instructional designer/technologist(s) serves as the pedagogy expert determining appropriate teaching and technology methodologies to use.
- The learning multimedia developer creates graphic, video and other course elements to enhance the course materials.
- The accessibility specialist provides quality checking to assure that the course meets high, rigorous standards and will be accessible to all our students.
- The educational assessment expert(s) provides direction on assessing the outcomes of the project. ITD’s instructional support team is currently piloting this approach with two design projects started in fall 2017.

With faculty from Organizational Communication and Physics/Astronomy serving as subject matter experts and providing raw course materials, the instructional design teams are building courses to be delivered starting in summer 2018. Plans are in place to add two additional courses to the pilot for courses to be delivered in fall 2018.

Assessments are under way to study faculty and student satisfaction with the courses created and their impact on student learning and success.

The instructional support team plans to offer this service to more course developers starting later this year.

If you undertaking a course design/redesign and would like to take advantage of this team approach, or to further discuss the possibilities for your courses, please contact Barbara Draude at 615-904-8383.

Digital Signage Corner:
Digital signage is now being used all over the MTSU campus in a variety of ways.

- There are 127 signs in operation or in the design/ planning stages at 23 buildings and two off-campus locations.
- Uses include:
  - Interactive learning
  - Employee engagement
  - Event marketing
  - Emergency communication
  - Wayfinding
  - Services marketing (i.e., Tutoring)
  - Calendar
  - Sports marketing
  - Social media
  - Recognition (donors, employees, faculty, students, sponsors)
  - Advising
  - Encouragement/inspirational motivation
  - Program marketing (i.e., Study Abroad)
  - Live streaming

Skype Spotlight: S4B makes moving easy
Moving to a new location on campus? Email telecom@mtsu.edu before you start packing!

A Telecommunication Services technician will be happy to assist in reconnecting your phone at your new location, as well as ensure your phone connects properly to the network to eliminate potential issues.

Also, it provides an opportunity for Telecommunication Services to update your location record for E911. In your email, be sure to include the following:
- Name
- Campus telephone number
- New location, including building and room number
- Date of move

Telecommunication Services requests a two-week notice on work order requests. If you have additional questions, feel free to contact Telecommunication Services at x2991.
Copeland is ITD's new assistant director of Classroom Technology

James Copeland joined ITD on Nov. 13 as assistant director of Classroom Technology and lead audiovisual engineer. Originally from Paris, Tennessee, he earned a bachelor's degree in University Studies, with a concentration in Health Sciences, from the University of Tennessee–Martin. He also graduated in December with an M.B.A. from UTM.

“I served seven years in the Marine Corps Infantry, and I then worked as a certified pharmacy technician for a few years,” Copeland said. “After that, I had an opportunity to work for a chain of hardware stores as a junior systems administrator. I decided to return to school so my wife and I returned to Martin, Tennessee. While I studied for my degree, I got a job as a student worker for IT with classroom technology.

“I quickly became passionate for this field and soon applied for a full-time position.”

ITD employees honored for service

ITD honored six employees at its 2017 Service Awards luncheon held in December. Honorees were:

10 Years (2007)
James Foster—Enterprise Application Services director
Janae Peterson—Enterprise Application Services systems analyst 2
Duane Semler—Client Services manager

15 Years (2002)
Charlotte Caruthers—Enterprise Application Services systems analyst 1

20 Years (1997)
Toto Sutarso—Academic and Instructional Technologies statistical consultant

25 Years (1992)
Eve Jones—Enterprise Application Services-Systems Analyst 2

Burgess, Magliacano attend AHG conference

Accessing Higher Ground is held yearly in Westminster, Colorado, focusing on current technologies and practices for serving students with disabilities in higher education.

Bill Burgess, instructional accessibility specialist, and new Adaptive Technology Center (ATC) Manager Chris Magliacano, attended the event Nov. 15–17.

“Chris worked as a student employee of the ATC over the past few years, so this conference was his first adventure as a full-time employee into the world of professional development,” Burgess said.

Sessions included Universal Design for Learning, the PDF/UA standard, video player accessibility, and STEM accessibility.

“I am continually impressed with the dedication and ingenuity of people in the fields of disability services and information technology. Accessing Higher Ground blends these disciplines beautifully and offers information to people who are new to the field and veterans alike,” Burgess said.

“These presentations helped to reinforce my knowledge in the field of Information and Communication Technology (ICT) accessibility, but they also reminded me that the goal is access. Access for all individuals with all levels of ability is the target. We have to work together to create a campus that does not help some more than others.”
Staff Profile: Matthew Harrell

ITD's Harrell enjoys diving deep into IT security, oceanography

ITD security analyst Matthew Harrell grew up in the hills of middle Tennessee, but his heart is drawn to the ocean. “I enjoy a lot of outdoor hobbies, like backpacking, kayaking and mountain climbing. I am also a bit of a marine hobbyist. I maintain my own reef ecosystem at home,” said Harrell, who plans to become SCUBA certified.

He said the reef that shares a 35-gallon aquarium with some fish and crabs has grown over the years. Like marine reefs, IT networks need the right conditions and protections to stay healthy and grow, which is why he continues to enjoy the information security field.

“As computer architecture and software become more complex and abstracted, not only do the threats become more sophisticated, but the countermeasures do as well,” Harrell said. “I would join the choir in saying that it’s a very exciting time to work in the information security field, but I feel it has always been an exciting field.”

Harrell, a senior information security analyst for ITD since September 2014, earned a bachelor’s degree in Professional Computer Science from MTSU and since then has dived deeper into the information security field.

A graduate of Oakland High just up the road from the University, he took the school’s computing course the first time it was offered as a pilot program.

“I had already gotten very involved with computing by that point, and the course landed me an internship where I was machining, assembling, and testing some cutting-edge medical imaging electronics,” he said.

He worked in that field during his first years at MTSU, but eventually accepted an information security role for a small firm tailored toward clients in the health care and finance industries.

“It was there that I was able to tap into my prior knowledge of intrusion detection and prevention systems and further develop a skillset around security auditing, reverse code engineering, and incident response,” he said.

After several years in that field, he decided to focus on his formal education again.

“I continued to work in Information Security, but as my courseload steepened I began working IT for MTSU’s Adaptive Technology program, which I felt was more conducive to my education,” he said. “My experiences there were very rewarding, and I worked with some very resilient and wonderful students there. I then accepted a position doing Sysadmin work for MTSU’s Walker Library upon graduation, which is how the security team here found me.”

His responsibilities at ITD are mostly to protect the private data of MTSU students, faculty, and staff.

“Aside from ensuring compliance to federal privacy laws, we also closely monitor the network for potential new vulnerabilities and threats,” he said. “A large portion of my job is to perform traffic analysis and remediate potential vulnerabilities when they are discovered. It’s definitely not staring at packet captures all day, though.”

“A good amount of time is needed to verify whether vulnerabilities do exist, and also to keep an eye on a consistently evolving threat landscape.”
“Daylight” will bring changes to D2L design this summer

MTSU will move to the new look and feel of Desire2Learn (D2L) called “Daylight” this summer. The normal functions of D2L will work exactly as they always have, but the interface will now be mobile-friendly and respond to the size of the screen on the device it is being displayed.

Those using phones and tablets will have a much-improved experience. Chances are that we may continue to reference it as D2L for a while, even though the new name Brightspace has given the product is “Daylight.” It’s simply different aesthetically—not functionally.

The D2L “My Home” screen will have the biggest change in appearance. The blue banner will no longer appear across the top of the screen.

Instead, icons or images will be available to navigate to courses and other D2L functions. Typical “three-line menu” icons may appear on smaller devices for navigating the interface. The “My Courses” widget will have associated images for courses along with the course name and start date information.

Widgets will not have a blue block across the top when using Daylight—a change in aesthetics.

For instructors designing courses, course banner images may be used within the “Course Home” page. Again, icons will appear across the top of the course.

For those who do not use the MTSU standard navigation (Course Home, Content, Assessments, Communication, Help), the course navigation will become one line of options.

In the current D2L layout, faculty sometimes opt for several navigation options around the course header area; those will be combined to one long navigation if the MTSU standard navigation is not used.
Everyone should easily adapt to the new look and feel without much difficulty. D2L boasts that the new interface is modern, clean, and easy to follow.

Because D2L updates the system every month, small changes occur throughout the year to continually improve how D2L performs.

Features like the new accessibility checker and shuffling quiz questions are constantly being added to D2L’s course resources to improve the experience for everyone.

“Daylight” is another avenue D2L is using to improve the experience on any device by being responsive to the size screen on the device of the end user.

Look for email and references to come during the spring for more detail as we prepare for Daylight at MTSU.

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**IT Tips & Tricks**

**Watch out: Computer problems could come in a flash . . . drive**

Lately I have had a number of folks for whom I provide tech support stumble across USB flash drives. These are drives they either found in the hallways of their buildings or on their way around campus.

I must stress that these drives do not belong to them, they don’t know who they belong to, or what for that matter is stored on the drives. They just happen to stumble across them and want to know what to do with them.

Generally speaking, I tell them to throw them away. However if they want to be a good person, I tell them to turn the drive in to the nearest department office to where they found it. The administrators in those offices are accustomed to folks turning in lost items, and most staff members check with them if they have lost something.

This advice also applies to people starting a new job who might find old unused flash drives in a drawer and think they’ve stumbled on something valuable they can use for their work.

The reason I tell them not to plug it into their computer is the same reason our parents told us not take candy from strangers—You do not know what’s in that candy (in this case in those files stored on the drive) or why it ended up “lost.”

The drive could belong to a faculty, staff, or student who just got careless and loss their drive. On the other hand, there have been news stories about individuals with malicious intent leaving drives around in public with viruses/spyware/malware hoping someone will come along, find the drive, and use it in their computer, which allows them to gain access. Read more in this article.

Even opening the USB to look at files in an effort to determine the owner could expose your computer to infection. Sending out an email asking whoever lost the drive to describe its appearance and where they lost it might be an acceptable option.

But it is still risky—it also could expose the former owner of the flash drive to ID theft if the wrong person managed to claim it and use it to obtain personal information.

So, trying too hard to help in this situation could be an example of a good deed not going unpunished.

If you need help with this or other issues, email security@mtsu.edu or call the Help Desk at x5345.