geek 411

The University of Advancing Technology

Student Life Magazine

ISSUE 7 FALL 2010

FALL $6.95

LOOK FOR THESE MICROSOFT TAGS

THROUGHOUT THIS ISSUE OF GEEK 411 AND TAG THEM TO GET MORE OF THE STORY OR BONUS CONTENT.

WHAT IS MOBILE TAGGING?

IT'S INSTANT INFORMATION & ENTERTAINMENT. It's technology that has the potential to turn nearly everything in the world into a three-dimensional hyperlink. That's right, physical objects can now be interactive in a whole new and less personal way – by pointing your phone at a storefront or a tee shirt or a sign, you can get instant access to information and entertainment online. The game of "tag, you're it" is likely as old as humanity, which is how you techno-geeks out there might feel about Microsoft Tags – the little colorful square grids you see throughout this issue of Geek 411.

HOW DO I GET STARTED?

STEP 1

Go online with your mobile phone to **http://gettag.mobi**
Or go to **www.microsoft.com/tag/content/download/**

STEP 2

Look for Microsoft Tags in this issue of Geek 411.

Open the Tag App on your phone and point the camera at the Tag.

STEP 3

Be amazed by the instant access to more content online and tell all your friends about it!

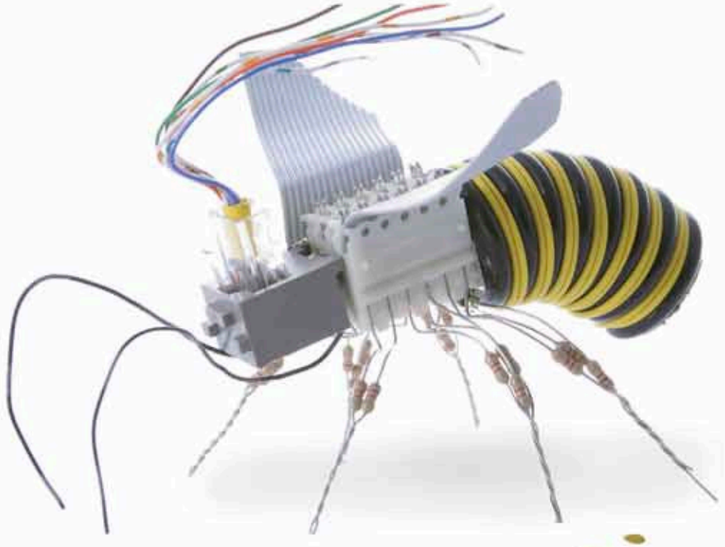
WHERE ELSE WILL I SEE IT?

Mobile tagging is already being used in a number of interactive communication applications in the USA:

- Movies - Link ads and posters to movie trailers and show times
- Advertising - Link print advertising to an online campaign
- GPS - Link web content to download directions
- Personal - Link to your profile, blog, site, or contact info
- Music - Link music lovers to the latest releases

T.O.C.

Image Courtesy of Twentieth Century Fox Film Corporation and Dune Entertainment LLC. All Rights Reserved.



uat.edu/robotics

THE INVASION HAS BEGUN

GEEKS ARE TAKING OVER.

- Learn how to design and implement intelligent software systems for autonomous robotics platforms.
- Use the UAT Hardware Lab to build, create and test robotics utilizing industry-standard software and engineering processes.
- Design and implement software subsystems for autonomous mobile robots, including power, motor, communication, feedback and control subsystems.
- Use the principles of physical computing as they apply to human/machine interaction to develop new robotic methods and innovations.

UAT's Robotics offerings build a solid foundation of understanding to expand upon deep and emerging areas of our future.

Bachelor of Science >
Robotics and Embedded Systems
Artificial Life Programming
Open Source Technologies

Master of Science >
Emerging Technologies

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LEARN, EXPERIENCE AND INNOVATE WITH THE FOLLOWING DEGREES: Advancing Computer Science, Artificial Life Programming, Digital Media, Digital Video, Enterprise Software Development, Game Art and Animation, Game Design, Game Programming, Human-Computer Interaction, Network Engineering, Network Security, Open Source Technologies, Robotics and Embedded Systems, Serious Game and Simulation, Strategic Technology Development, Technology Forensics, Technology Product Design, Technology Studies, Virtual Modeling and Design, Web and Social Media Technologies

IT'S ALL ABOUT THE EMBEDDED SYSTEMS!
See why> uat.edu/robotics

University of Advancing Technology — UAT — Learn. Experience. Innovate.

GEEK 411 AD

LATEST UAT BLOCKBUSTER IS A MAJOR MILESTONE IN DIGITAL VIDEO PROGRAM

STATS

WHAT: Fallout, a futuristic action thriller

WHO: UAT Professor Paul DeNigris and 31 of his "Digital Video Production Studio" students

DEVELOPMENT TIME: 12 months

TOOLS: Green screen stage with motion capture, high def camcorders, digital audio equipment, Hollywood quality lighting and equipment

POST PRODUCTION TOOLS: Avid Media Composer, Adobe Creative Suite 4, Autodesk 3D Studio MAX and Maya

COMING SOON TO A SCREEN NEAR YOU!

An epic sci-fi action adventure, a year in the making . . .
In a world where university students create apocalyptic environments utilizing the very latest digital video and audio technology, there can be only one ultimatum – *Fallout*!

FALLOUT IS UAT'S FIRST FILM TO CONSIST ENTIRELY OF "GREEN SCREEN," COMPUTER-GENERATED IMAGES AND VIRTUAL BACKGROUNDS

After more than 12 months of dedicated work and creativity, a crew of UAT students, led by Professor Paul DeNigris, is just about to premiere the futuristic action-thriller, *Fallout*. It's 50 years from now and there has been some sort of apocalyptic battle on American soil. The city of Phoenix still exists, but it's obviously been through tremendous trauma, barely populated, with the smoldering ruins of skyscrapers and shopping malls around every corner, it's a scene of devastation. A team of five soldiers – The Wild Cards – who work for the Department of Homeland Security Southwest Sector Command are tracking down terrorists with a suitcase nuclear device. The nuke detonates and there is only one survivor. This sets off an investigation which relies on a high-tech forensic helmet that can extract memories – in a most painful way – from those forced to wear it. Full of twists, turns and double-crosses, the film ends leaving viewers with the mystery of who is really responsible for the damage.

Professor DeNigris describes how the movie came together, "As for the idea, a lot of my students and I love Stargate-SG1, so we wanted a lot of military action, ray guns, space – you name it – so we somewhat based it on that. It's basically about an elite unit of anti-terrorist groups that are betrayed by one of their own and seemingly vaporized by a nuclear suitcase bomb and the investigation that follows after."

The UAT crew, most of whom are enrolled in DeNigiris' "Digital Video Production Studio" classes, consists of a core group which has been with the project since its inception and others who have spent time on the project. The Professor says, "I think there's about 31 students working on it right now. We have some current students, some auditing students and one graduated student working on it with me. They're all absolutely dedicated. But don't get the impression that it has been hundreds of hours of drudgery. We get to play dress-up in tactical uniforms and run around shooting Airsoft guns. This movie definitely reflects the UAT culture – it includes many references to games, TV shows and movies. While it is enjoyable for all, if you go to UAT or are interested in it, you're going to 'get' this movie."

TEAM *FALLOUT*:

Ryan Andrews – *Supervisor of Particles & Dynamics*
Valeriy Benidze – *3D Modeling & Texture*
Matthew Buresh – *Editing & Sound*
JD Cerince – *3D Modeling Supervisor*
John Chafuen – *Sound Mixer*
Matthew Dejesus – *Digital Matte Painter*
Jason Dye – *Assistant Composer*
Christopher Erickson – *Dir of Photography/Editor*
Mitchell Faherty – *Costumes & Props*
Stephen Failla – *2D Designer*
Justin Gagen – *Art Dept Supervisor*
Shawn Geary – *Compositor*
Chad Hryhorysak – *Producer*
Thitiwut "T.J." Jaroensuthiyotin – *Compositor*
Kyle Jenkins – *3D Modeling & Texturing*
Austin Jensen – *3D Modeling*
Jessica Jones – *3D Modeling*
Kalki Kahira – *Visual Effects Supervisor*
Mark Lee – *3D Modeling*
See Ooi Lim – *Lead Concept Artist*
Shon Major – *Compositor*
Matt McElroy – *Producer*
Andrew Pfeiffer – *3D Modeling*
Alexander Stephens – *3D Modeling*
Joel Terry – *Assistant Editor*
Monica Thies – *Compositor*
James Toth – *Digital Matte Painting*
Luke Walsh – *3D Modeling*
Nicholas Wassenburg – *2D Designer*
Professor Paul DeNigiris

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One of the benefits of being at UAT to work on this type of project is that students get to work with the same equipment that the pros use in the film industry. Here's a partial list of the leading edge gear that enabled the team to create a highly credible film:

ON THE INITIAL PRODUCTION SIDE:

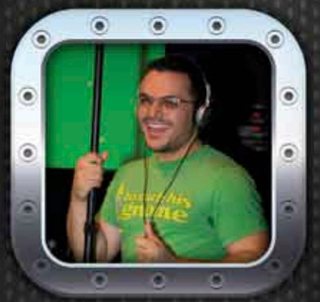
- Camera tracking was done using yellow tracking markers on the green screen and then tracking the movement of those markers using software (Maya and After Effects, specifically), allowing camera to move and still have elements added later match up perfectly
- Green screen stage with motion capture system (for character animation driven by live performer) – allows camera to move and still have elements added later match up perfectly
- High Def Camcorders with all the lenses and support equipment to capture beautiful images
- Dollies, tripods, and crane arms for sweeping camera moves
- Lighting: Arri Fresnels, same as you would see on a Hollywood set
- Great digital audio equipment and microphones
- Portable digital audio recorders that output to SD memory cards, which means there's no more "tape" in audio recording
- The helmet worn by the character "Hopper" was modeled in 3DS Max and then "printed" in plastic using UAT's rapid-prototyping printer. The parts were then painted and assembled into a complete prop that is totally unique to the film.

FOR POST-PRODUCTION:

- Avid film Production Lab
- 10 top of the line HP workstations set up with Avid Media Composer – the industry standard for digital video editing. All 10 of last year's 10 Oscar-nominated Best Films were edited on an Avid product.
- Full Adobe Creative Suite 4 (now upgrading to CS5) – running applications like Premier Pro, After Effects, Bridge and Photoshop
- Autodesk 3D Studio MAX and Maya

Many of these applications are the same ones recently used in the production of "Avatar." Speaking of which, look for the article in this issue on the UAT grad who worked on visual effects for that film. A good number of other UAT alumni are also working right now in post-production and other positions for TV and movies in Los Angeles.

SEE THE MOVIE
UAT.EDU/FALLOUT



EVENTS

LEARN MORE

tag this or visit us online at www.uat.edu/events

TECHNOLOGY FORUM 2010

WELCOME TO TOMORROW

www.uat.edu/techforum
Tempe, AZ
November 2 - 4, 2010

UAT brings industry's leading technology experts on campus for three extraordinary days of breakthroughs, insights, trends and challenges.

One of the best times to come see the campus! Go to **www.uat.edu/techforum** to register.

FLY-IN G33K PROGRAM

LISTEN to the industry's experts talk about hacking and programming. Get information about UAT's degree programs from deans, faculty and students. Learn about financial aid, housing and enrollment and tour the campus!

November 6 & 13, 2010

February 26, 2011

March 12 & 26, 2011

May 28, 2011

www.uat.edu/flyingeek
Tempe, AZ

TECHNO FORENSICS AND DIGITAL INVESTIGATIONS CONFERENCE

www.technosecurity.com
Gaithersburg, MD
October 25 - 26, 2010

The Techno Forensics & Digital Investigations Conference is founded on the principles of standardization in the field of digital evidence investigation.

DEFCON

www.defcon.org
Las Vegas, NV
Date TBD

The Largest Underground Hacking event in the World! Several of DefCon's organizers are UAT faculty members.

GDC S.F.

www.gdconf.com
February 28 - March 4, 2011

The Game Developers Conference® is the world's largest professionals-only game industry event. Presented every spring in San Francisco, it is the essential forum for learning, inspiration and networking for the creators of computer, console, handheld, mobile and online games.

GEEK WEEK

Tempe, AZ
February 14 - 18, 2011

Other universities might call it "Homecoming," but at UAT, it's a week for geeks, so we call it... well, Geek Week. Our Student Life and Residence Life teams put together seven days full of everything geek – from movie nights to Pi-Off and Dodgeball Tournaments – for fun and prizes.

University of Advancing Technology
UAT
Learn. Experience. Imagine.

We Dream In Code

> UAT's degree in Advancing Computer Science is designed to create master programmers by offering advancing methodologies in a contemporary learning environment.

> Students are instantly immersed and begin programming on day one.

> UAT teaches over 14 languages including C#, the .Net Technologies, C, C++, Java, Python, Ruby, JavaScript and F#.

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Advancing Computer Science
Artificial Life Programming
Enterprise Software Development
Open Source Technologies

Master of Science:
Advancing Computer Science

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GEEK 411 AD

CONJURE YOUR CALLING
as an innovator in the realm of the machines. Start now with a coveted Advancing Computer Science degree from UAT> uat.edu/acs

Attero students' game rocks GDC again!

In what is rapidly becoming a UAT annual tradition, a team of students and professors took a game they had created to this year's Game Developers Conference (GDC). GDC is the world's largest conference for professional video game developers. Industry professionals make presentations on programming, design, audio, production, business and management, and visual arts to more than 17,000 attendees.

Team Dos from UAT, armed with professionally prepared game disk packaging and marketing materials, presented their new game, *Attero,* to the industry professionals in attendance. They got a rousing reception, some solid real-world advice and more than enough encouragement about their project to make the endless hours in development worthwhile. To get the game to the "semi-finished" state that allowed the team to demo it at GDC required eight months of work by a dozen or more students. Each member of the team got a powerful piece to place in their portfolio to show prospective employers when they graduate and launch their job search. While there was never an intention to take the game to a commercially viable finished level, team members estimated that the process to do so could take two more years of dedicated work.

Combining fantasy role-play genre with shoofer battle action

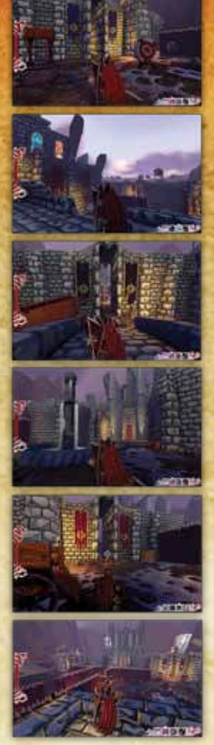
Attero is a fast-paced, competitive multiplayer game featuring a fearlessly colorful and handcrafted art scheme and created using the Unreal Engine 3 development framework for Xbox 360® and PLAYSTATION®3. While many Fantasy Role-Playing (FRP) and Massively Multi-Player online (MMO) titles have included objective-based competitive, multiplayer game modes as part of their feature set, *Attero* is unique in that it makes that aspect of gameplay its sole focus. Player-vs-player battles are uniquely in the forefront of this FRP. *Attero* takes teams made up of fantasy-themed character classes and puts them in combat scenarios usually reserved for shooter games, while preserving their reliance on each other to fulfill team roles, for a conceptual breakthrough in the gaming world.

Save yourself from an apocalyptic fate

Attero takes place in a fantasy-themed world recently saved from the brink of oblivion. Teams made up of player classes traditionally found in the Role-Playing Game (RPG) and MMO genres duke it out in a First Person Shooter (FPS)-style match, using their unique class abilities to work together to achieve victory in various classic FPS multiplayer game modes. A player takes control of one of four fantasy-themed character classes with different abilities, playstyle, and team role to play. The player then joins a team of other players and takes on other teams in several different game modes.

In the shadows of the trees in the heart of *Attero*'s jungles, elders of a strange and ancient race looked on the scene from spiritual trances, pleased with what they saw. For centuries, the Goblins had been hunted and killed for sport by both Elves and the Humans. The only respite from this relentless genocide occurs when both races are forced to deal with this new enemy they had in common.

It is ten years later. Governments have dissolved, kingdoms reduced to nothing. Humans, Elves and Goblins seek to carve out an existence amidst the desolation. The members of the newly dubbed race, Riftborne, struggle to come to terms with their new identities. The races will rebuild, but certainly not for a great while. For now, it's every Human, Elf, Goblin or Riftborne for themselves. Who can you trust?



Team Dos Members

J.D. Cerince – Art Director/Character Artist
Taylor Southerland – Project Lead/Lead Designer
Andy Arias – Lead Concept Artist
Blake Bjerke – Lead 3D Artist
Andrew Dyksterhouse – 3D Artist
Daniel Loo – 3D Artist
Melissa Reese – GUI Artist
Layna Salazar – Lead Animator
Steve Tomei – Rigger/Animator
Andrew Langholdt – Co-Lead Programmer
Bryan Clark – Co-Lead Programmer
Fatir Ahmad – GUI Designer/Programmer
Jerrad Zonna – Programmer
Andres Mercedes – Programmer
Storm Kiernan – Programmer
Nicole Silva – Web Designer

Diversity, it's a beautiful thing

Take a look at the listing of team members who contributed to the Attero game. Team members come from no fewer than six different majors to create quality through continuous improvement. UAT students come from all 50 states and 6 of the 7 continents and they all have one thing in common: they are passionate about technology. Their diversity helps keep school activities interesting and exciting, and their connection to technology makes the learning fun. The Attero game team is a perfect example of the diversity of the UAT community – different cultures, different talents, different majors all coming together. And each person brings their own experiences and base of knowledge in addition to what they have learned in the courses in their major. A big part of UAT's "Learn. Experience. Innovate." culture is this melding of talents, perceptions and personalities. UAT provides a rich campus life for students and faculty. Our unique technology-infused campus facilities have been designed to enhance collaborative learning. Students, staff and faculty learn, create, live and play together in a team environment.

STATS

WHAT: Attero, a multiplayer, Fantasy Role-Play game

WHERE: GDC

WHO: The 29 members of Team Dos

DEVELOPMENT TIME: 8 months and counting

TOOLS: Zbrush, Microsoft Excel, Apache Subversion, Mantis Bug Tracker

Download the game at: www.uat.edu/projectattero

See past GDC contest winners at: www.uat.edu/pastgdcwinners

Team Wins Avnet Games Video Tech Spot Challenge.

Sean Walter, Bryan Simcox and Wesley Peterson – "The DV Rebels" – were the winners of the Tech Spot Challenge in Avnet's Tech Games recently. The Challenge was to create a 30-second television spot to promote the Tech Games. This is Part A of the contest. In Part B, the competing teams will develop and run a marketing campaign on YouTube, utilizing the TV spot created in Part A. Each winning team member won a $1000 scholarship.

See the winning spot here:
www.uat.edu/avnet2010

Third Annual Academic Palooza.

The third Academic Palooza was held March 29-April 2. The week kicked off with an anagram competition where students were challenged to devise as many different words as possible from the UAT motto "Learn. Experience. Innovate." The Visual Life Storyboard competition challenged students to "Say it with pictures!" by creating a storyboard using photographs and a predetermined theme.

One of the most popular contests was "Warren Jones and the Temple of Doom," a detecting race similar to the film, "National Treasure." Jones, UAT's Resident Life Coordinator, challenged teams with cryptic ciphers, codes and even clues hidden within the metadata of files. Players often had to use context clues in order to solve a puzzle and figure out where to go next. Jones was approached by Provost Dave Bolman and Professor Ellen Wolterbeek about conducting the event after getting word of a similar contest he had produced previously. "Nobody knew I was doing it. I just did it, and the students absolutely loved it," Jones said.

GEEKING FOR THE COMMON GOOD

Spur of the Moment UAT Event Raises Nearly $4000 for Haiti Relief.

After the Haiti earthquake disaster, UAT Student Government President, Jeff Kunzler launched an effort for the UAT community to help those affected. The idea turned into Fundraising for Haiti: The Auction & Concert Event. Student Government spearheaded the event, which took place March 26 on campus.

"This event really brought UAT together in a communal sense of raising money for a good cause," said Kunzler. The auction and concert raised close to $2000 and the university matched the donated amount to bring the grand total to $3,879.74 going to the American Red Cross. Those who staged the event and those who participated in it all felt it was a huge success. Kunzler summed up the event this way, "We raised a significant amount of money and Student Government never really attempted something of that magnitude before. I feel with the amount of money raised and how well the event went, that it was a success."

DESTINATION GEEK 2010

What did you do during your Spring Break? UAT students and staff took part in the annual Destination Geek event by volunteering their time to go out into the community and help various non-profit organizations around the Phoenix/Tempe metro area.

The first stop was the Make-A-Wish Foundation, where volunteers performed landscaping and office work. Next up was Treasures 4 Teachers, where they got to get creative with barrels. "We painted barrels, which are used for storage. It was fun, messy, but fun. I still have paint under my nails," said student Sabrina Jones.

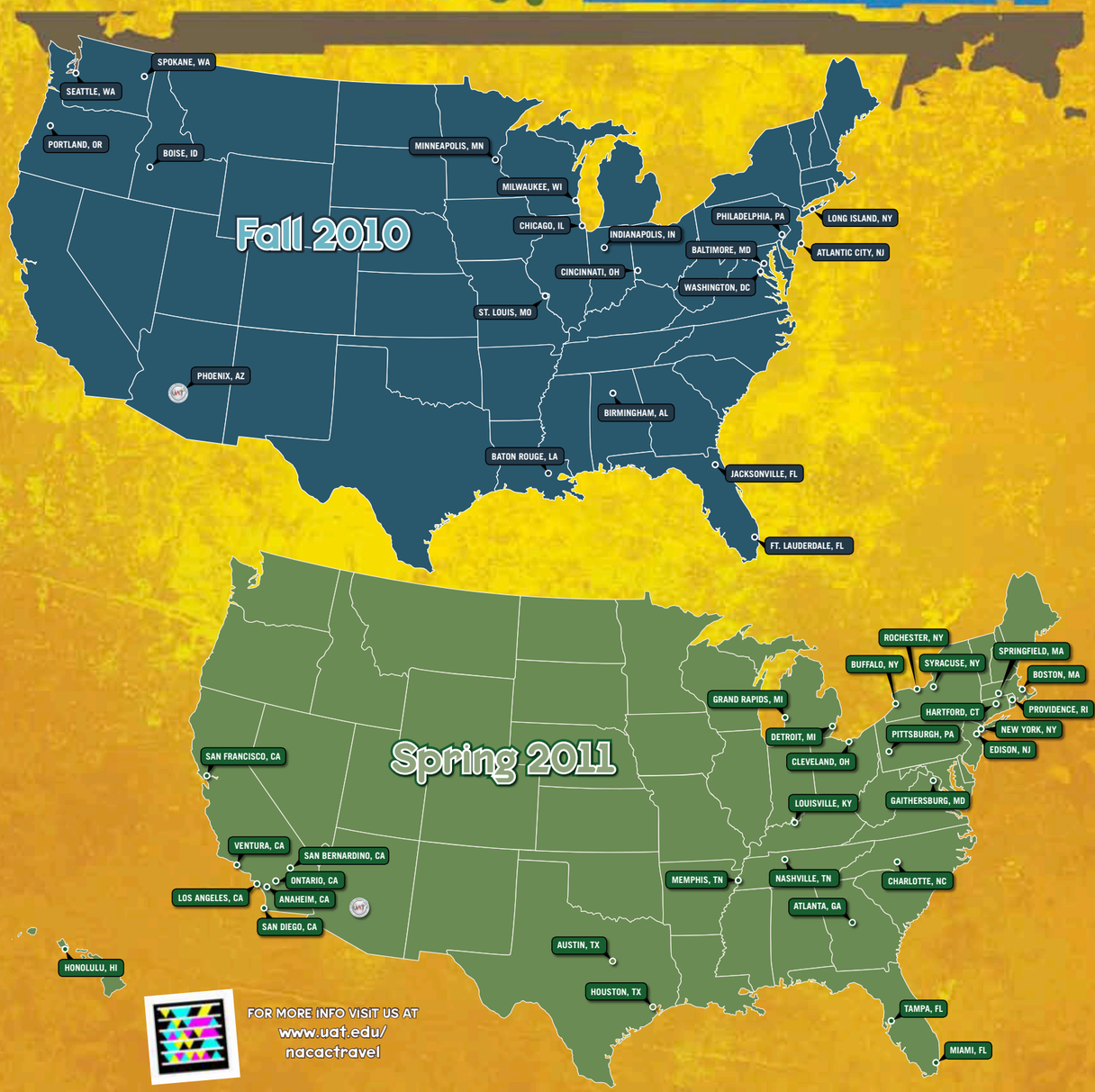
Camelot Therapeutic Horsemanship was the next destination. Residence Life Coordinator, Warren Jones lead the way as volunteers cleared trails, trimmed mistletoe off of trees and pulled weeds. It was hard work, but the UAT volunteers were rewarded by getting to meet the multi-million dollar horses that provide therapeutic help for children and adults who have disabilities such as muscular dystrophy.

The photo albums from Destination Geek 2010 are available at:
www.uat.edu/destinationgeek2010

Travel Schedule

did you know...

You can see which UAT liaison will be in your area at www.uat.edu/NACACTravel.



FOR MORE INFO VISIT US AT
www.uat.edu/
nacactravel

We're coming to a town near you to geek you up!

The UAT Road Show is on its way across the country to spread the word about this unique educational opportunity. If you're a seriously geeked student who wants to conquer the technology world, attendance is mandatory. It's the fastest way to get face-to-face with a UAT representative and get the information you need to make the most important decision of your life.

Check us out online at www.uat.edu/nacactravel and see if we will be in your area. If you'd like UAT to visit your school ask your guidance counselor to contact a UAT high school Liaison Coordinator at 877-UAT-GEEK (877-828-4335).

* Fall 2010 NACAC Schedule

BIRMINGHAM	Sun., Sept. 19	1:00 pm – 4:00 pm	Sheraton Birmingham Hotel Birmingham, AL
BATON ROUGE	Thurs., Sept. 23	9:00 am – 12:00 pm 6:00 pm – 8:00 pm	Baton Rouge River Center Baton Rouge, LA
GREATER PHOENIX	Sun., Sept. 26	12:00 pm – 3:30 pm	Phoenix Civic Plaza Phoenix, AZ
LONG ISLAND	Sun, Oct. 3	11:00 am – 4:00 pm	Nassau Veterans Memorial Coliseum Uniondale, NY
CINCINNATI	Sun., Oct. 3	1:00 pm – 4:00 pm	Duke Energy Center Cincinnati, OH
MINNEAPOLIS	Wed., Oct. 6 Thurs., Oct. 7	9:00 am – 12:30 pm 4:30 pm – 8:00 pm 9:00 am – 12:30 pm	Minneapolis Convention Center Minneapolis, MN
GREATER WASHINGTON DC	Tue., Oct. 12	9:00 am – 1:30 pm 6:00 pm – 8:00 pm	Washington Convention Center Washington, DC
JACKSONVILLE	Sat., Oct. 16	12:00 pm – 4:00 pm	Prime F. Osborn III Convention Center Jacksonville, FL
PHILADELPHIA	Sun., Oct. 17	11:00 am – 3:00 pm	Pennsylvania Convention Center Philadelphia, PA
ST. LOUIS	Sun., Oct. 17	12:00 pm – 3:00 pm	St. Louis University St. Louis, MO
BALTIMORE	Mon., Oct. 18 Tues., Oct. 19	9:00 am – 12:00 pm 6:00 pm – 8:00 pm 9:00 am – 12:00 pm	Baltimore Convention Center Baltimore, MD
ATLANTIC CITY	Thurs., Oct. 21	9:00 am – 12:00 pm 6:00 pm – 8:30 pm	Atlantic City Convention Center Atlantic City, NJ
CHICAGO	Sat., Oct. 23	11:00 am – 3:00 pm	Navy Pier Chicago, IL
MILWAUKEE	Sun., Oct. 24	12:00 pm – 3:30 pm	Midwest Airlines Center Milwaukee, WI
INDIANAPOLIS	Mon., Oct. 26	9:00 am – 12:00 pm 6:00 pm – 8:00 pm	Indiana Convention Center Indianapolis, IN
FT. LAUDERDALE	Thurs., Nov. 4	9:00 am – 1:00 pm 5:00 pm – 8:30 pm	Ft. Lauderdale/Broward County Convention Center Ft. Lauderdale, FL
SPOKANE	Thurs., Nov. 10	9:00 am – 12:00 pm 6:00 pm – 8:00 pm	Spokane Convention Center Spokane, WA
PORTLAND	Sun., Nov. 12 Mon., Nov. 13	12:00 pm – 3:30 pm 9:00 am – 12:00 pm	Oregon Convention Center Portland, OR
SEATTLE	Sun., Nov. 14 Mon., Nov. 15	12:00 pm – 4:00 pm 9:00 am – 12:00 pm	Washington State Convention & Trade Center Seattle, WA
BOISE	Tue., Nov. 17	9:30 am – 2:30 pm 6:00 pm – 8:00 pm	Boise Centre on the Grove Boise, ID

* Spring 2011 NACAC Schedule

ATLANTA	Sun., Jan. 24	time FPO	Georgia International Convention Center College Park, GA
PITTSBURGH	Thurs., Feb. 4 Fri., Feb. 5	time FPO time FPO	David L. Lawrence Convention Center Pittsburgh, PA
MIAMI	Sun., Feb. 21	time FPO	Sheraton Miami Mart Hotel Miami, FL
LOUISVILLE	Sat., Feb. 27	time FPO	Kentucky Int'l Convention Center Louisville, KY
TAMPA	Sun., Feb. 28	time FPO	Tampa Convention Center Tampa, FL
SPRINGFIELD	Sun., March 7 Mon., March 8	time FPO time FPO	Eastern States Exposition (The Big E) West Springfield, MA
ROCHESTER	Wed., March 17	time FPO	Rochester Riverside Convention Center Rochester, NY
CHARLOTTE	Sun., Mar. 21	time FPO	The Park (formerly the Charlotte Merchandise Mart) Charlotte, NC
SYRACUSE	Sun., March 21 Mon., March 22	time FPO time FPO	Onondaga County Convention Center, at Oncenter Syracuse, NY
BUFFALO	Tue., March 23 Wed., March 24	time FPO time FPO	Buffalo Niagara Convention Center Buffalo, NY
GREATER MEMPHIS	Wed., March 24	time FPO	Agricenter International Memphis, TN
HARTFORD	Thurs., April 8 Fri., April 9	time FPO time FPO	Connecticut Expo Center Hartford, CT
HOUSTON	Sun., Apr. 11	time FPO	George R. Brown Convention Center Houston, TX
AUSTIN	Tue., Apr. 13	time FPO	Austin Convention Center Austin, TX
WEST MICHIGAN	Tue., Apr. 13	time FPO	DeVos Place Grand Rapids, MI
MONTGOMERY COUNTY	Wed., Apr. 14 Thurs., April 15	time FPO time FPO	Montgomery County Agricultural Center Gaithersburg, MD
METRO DETROIT	Thurs., April 15	time FPO	Burton Manor Banquet and Conference Center Livonia, MI
SAN FRANCISCO	Sat., April 17	time FPO	Concourse Exhibition Center San Francisco, CA
SAN DIEGO	Tue., April 20	time FPO	San Diego Convention Center San Diego, CA
HONOLULU	Thurs., April 22	time FPO	Hawaii Convention Center Honolulu, HI
INLAND EMPIRE	Thurs., April 22	time FPO	National Orange Show Events Center San Bernardino, CA
PROVIDENCE	Sat., April 24	time FPO	Rhode Island Convention Center Providence, RI
NASHVILLE	Sun., April 25	time FPO	Nashville Convention Center Nashville, TN
NEW YORK	Sun., April 25	time FPO	Jacob K. Javits Convention Center New York, NY
ORANGE COUNTY	Sun., April 25	time FPO	Anaheim Convention Center Anaheim, CA
BOSTON	Tue., April 27 Wed., April 28	time FPO	World Trade Center Boston, MA
GREATER LOS ANGELES	Tue., April 27 Wed., April 28	time FPO time FPO	Pasadena Convention Center Pasadena, CA
NEW JERSEY	Wed., April 28 Thurs., April 29	time FPO time FPO	New Jersey Convention and Exposition Center Edison, NJ
VENTURA/ TRI-COUNTY	Thurs., April 29	time FPO	Seaside Park Ventura, CA
CLEVELAND	Sun., May 2	time FPO	Wolstein Center Cleveland, OH

* Note: These dates are from the official NACAC College Fair schedule and are tentative and subject to change. Please visit www.uat.edu/nacactravel for the latest schedule.

Kyle Dillingham

Mike Behringer

Blake Bjerke

Nick Brown

Wes Sampson

Ty Graham

Kyle Jenkins

Vesna Dragojlov

ASSOCIATE PROFESSOR, DIGITAL MEDIA

FACULTY PROFILE

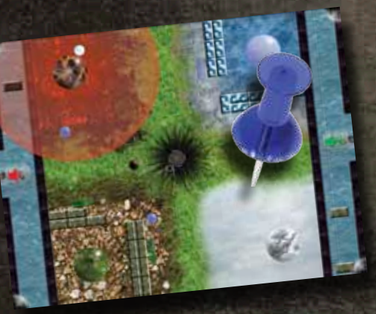
"Teaching in higher education is my passion."

Professor Dragojlov's professional teaching career began in the former Yugoslavia. She moved to the U.S. in 2003 where she continued teaching while taking graduate courses in Art History and Digital Media. She says that, "My interdisciplinary graduate coursework covered all areas of new technologies including web, multimedia and print design, their concepts and technology, as well as social, aesthetic and ethical issues. Those opportunities have allowed me to integrate my various skills and broad knowledge especially in teaching integration of arts and technologies, and topics related to the new space on the internet, among others. To have the opportunity to embrace linguistics theories, new media theories, and their social and ethical impact on today's society has been a very rewarding experience."

Our first question for Professor Dragojlov was "How did you go from an undergraduate English major into art and philosophy then into technology, and integrating all of them into your learning and teaching?"

She said that when she arrived in the U.S. she discovered, "I couldn't do anything with my English degree – it was too narrow a field. I was teaching English phonology (the sound system of the language) and intonation and translation studies – very, very narrow, specific areas. I don't feel comfortable being focused on just one little thing. Then University of Denver opened a new graduate department in New Media Studies. I found a really great appeal there. I had always been interested in art; I had translated articles for an art magazine back in Yugoslavia. The professor starting the New Media Studies department was a real visionary and he saw it as completely inter-disciplinary, integrating critical studies and technology and art and design. And I was attracted to that concept immediately."

›› READ MORE:
uat.edu/vesna



Puzzling out a new gaming platform.

the scoop

The Microsoft Surface computing platform is making waves, and not just when you touch or set an object on a device powered with surface technology. This innovative platform that responds to natural hand gestures and real world objects and has a 360-degree user interface is the next generation of interactive display. No wonder it has already won starring roles on TV dramas like CSI: Miami and in US political coverage on MSNBC.

With a Surface available for use in the UAT Commons, students have daily access to its exceptional functionality. In the technology marketplace, once a particular capability has proven itself in one application, the functionality is quickly adapted and integrated into other applications. This marketplace dynamic is replicated on the UAT campus, where departments collaborate and cross-pollinate far more freely than in traditional academic settings.

An example of this is how the presence of the surface computer sparked the interest of the advanced Experimental Game Play class led by Professor David Wessman.

the challenge

The class is designed to prepare students to develop their own strategies for game development dealing with real-world conditions. So the first step was for the students to select the technology platforms they were interested in integrating into their game. Wessman challenged his class to think beyond the current status quo, just as they will have to do as professionals in the ever-evolving gaming industry.

"It was anything goes," says Wessman, "from neurosky headsets to Surface to the 3-D printer. This included changing up gameplay mechanics or target platforms or both. The only constraint was time—we only had 15 weeks to make this happen. In the real world, you're always working under time constraints, so bringing this element into play was very relevant for the students—it's only a good idea if you can bring it to market in time."

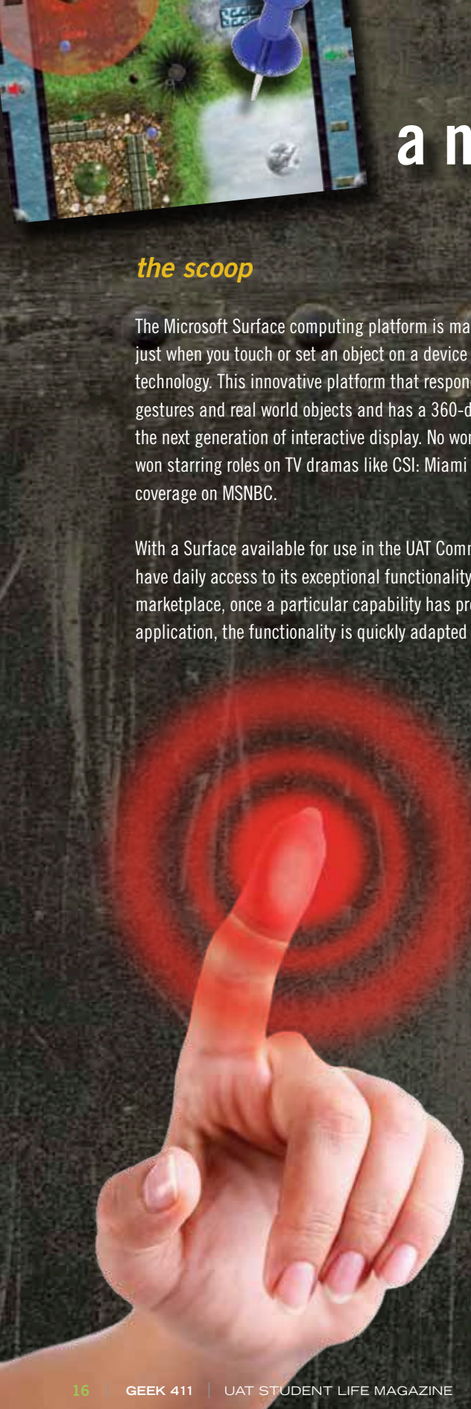
Not surprisingly, since they passed the Surface computer every day in the Commons, the students were immediately drawn to the new frontier of Surface gaming.

the approach

The class split up into two development teams, one of which focused on creating a puzzle game. The concept was simple enough: leverage the Surface technology already available at UAT to develop a virtual puzzle game that could be played on the Surface computer. This meant a four-player format matching the rectangular surface. The game would enable participants to place puzzle pieces on the Surface, which the Surface computer would recognize and then restructure the whole puzzle accordingly.

It is sound strategy that when embracing a new technology platform you start with fairly basic game play. The puzzle team soon learned how wise this approach was. Leading edge technology brings with it leading edge obstacles to be overcome.

Left to Right: William Courtney, Brendon Erquiaga, Professor Dave Wessman, Austin Langston, Giovanni Gonzales, Kyle Brannon, Andrew Maul



To see the outcomes of this challenge go to

stats

the class: Experimental Gameplay (GAM390)
the instructor: Professor David Wessman
the challenge: Create innovative gameplay on any platform of their choice
the result: Three different game projects for the Microsoft Surface; Alt Dimensional Maze, WPB and StarFist

www.uat.edu/surfacegame

It's the Dream!

BUY FLIPT NOW!

Check out the Flipt game here: www.lumaarcade.com
And see Stefan's website and portfolio at www.stefandieckmann.com

Even dreams don't always work out this well. Stefan Dieckmann completed his UAT degree in Game Programming in 2009. Before returning from Arizona back to his home in South Africa, he sent his resume to several recruiting firms there. As he says, "From that, I scored an interview with Luma Studios in Johannesburg. They develop PC and cellphone games. I got the job and was immediately put on the game, *Flipt*, as a programmer." Because he is comfortable programming in several languages, Stefan programmed all the audio in the game, including a positional audio system; many of the GUIs in the game, including the audio menu; the lighting system; effects including explosions, water and others; providing support for the animated textures; data saving; bug fixing; hud items and overall polish of the game.

Within a year of his graduation from UAT, Stefan is already an experienced, multi-talented veteran in the game business.

He says that, "As long as I can remember, I've had an interest in computers and video games. Beginning with Lego structures, tree houses and sand forts, I developed a passion for creating things and having fun. I pay great attention to detail and strive for perfection in everything I do. I consider myself an "all rounder" when it comes to programming with experience in graphics, GUIs, simulations, data structures, artificial intelligence, audio, databases, design, interoperability, multi-threading, source control, debugging, object-oriented approaches and console development."

One of the keys to getting assigned to *Flipt* was that he already had experience with the game engine being used to build the game – Torque Game Builder from Garage Games – from a programming course at UAT where he used Torque for an entire semester. He feels that's one of the big advantages for UAT graduates – "Hands-on experience with the very same software and hardware that is currently being used by the professionals in the industry." Also, he feels that UAT added another skill in his tool box by being involved in the team-based projects which are common for undergraduates. He says, "I came out of UAT already knowing how to work as a part of a team with other developers, artists and programmers, which is the way the industry works. Other classes such as public speaking and portfolio building gave me some valuable presentations skills, which help me during meetings when I have to voice any design ideas I have."

Flipt is an engaging and exciting puzzle platform for iPhone and iPod Touch which allows players to race to become the fastest to solve puzzles and blast their way around deadly traps to unlock new characters and time trials. A unique twist (quite literally) is that players tilt their device to shift the game's perspective, turning floors into ceilings and walls into floors. The gameplay is somewhat reminiscent of SHIFT or TURN, but with a big step up in stunning graphical fidelity.

NAME: Stefan Dieckmann
PROFESSION: Game Programmer > Luma Arcade: Johannesburg, South Africa
ALUMNUS: Class of 2009 > cum laude
MAJOR: Game Programming
HOMETOWN: A citizen of the world, he's lived in Thailand, Germany and South Africa

Check out more UAT Alumni at www.uat.edu/alumni

FOLLOWING FOUNDER'S HALL RESIDENT,
CODY FURR AS HE GOES THROUGH HIS DAY.

DAY IN THE LIFE OF A UAT SOPHOMORE

8:45 AM

WAKE UP IN MY DORM ON CAMPUS...

8:50 AM

BRUSH MY TEETH

OFF TO WORK...

9:00 AM

KEEPING TRACK OF 13,000+ LIBRARY MATERIALS

9:18 AM

DEWEY DECIMAL SYSTEM

10:22 AM

THAT'S ME TOTALLY PAYING ATTENTION IN COMMUNICATIONS CLASS

11:55 AM

A SNACK BEFORE CLASS

12:14 PM

1:07 PM

A QUICK BITE AND A GAME OF LEFT FOR DEAD 2 IN 3D

BURN THE #*$! WITCH

1:53 PM

2:33 PM

BACK TO CLASS...

2:46 PM

3:10 PM

AFTERNOON STUDY TIME

4:04 PM

DINNER TIME = PIZZA TIME

4:14 PM

5:00 PM

...AND BACK TO WORK.

TO SEE MORE ABOUT STUDENT LIFE CHECK OUT UAT.EDU/DAYINTHELIFE

END.

PIRACY OR BIG BUSINESS?

P2P'S IMAGE GOES MAINSTREAM

P2P is being embraced as a great way to distribute large packets of information without the expense of traditional server-client networks. WHY NOT? You handle major traffic without paying as big a price.

– Raymond Blackwood
Director of Technology, UAT

In this summer's blockbuster movie, "Get Him to the Greek," Russell Brand's rock star character gets mad at Metallica drummer Lars Ulrich (playing himself in the film) and shouts, "Why don't you go and sue Napster, you Danish (inappropriate term, let's say 'twit')!" In 2000, Metallica actually did file a lawsuit for music piracy against Napster which eventually led to Napster's shut down and bankruptcy in 2001.

One of the first well-known examples of a "peer-to-peer" (P2P) network, Napster helped create the perception of P2P technology as simply being aggressively illegal networks that allowed fans to "pirate" music by downloading MP3s without paying. Many observers, especially those in the music business, considered this their first glimpse of the dark side of the Internet.

P2P is a computer network composed of individual participants who make some of their own computing resources (disk storage, processing power, bandwidth, etc) directly available to other network participants, eliminating the need for centrally controlled resources such as servers. When you are part of a P2P, you are both a supplier and a consumer of resources, as opposed to a traditional client-server model where roles are strictly defined – servers supply, their clients consume. P2P was an early Internet example of the development of the communal orientation of social networking, which has exploded over the last few years. Its growth and popularity was based on being a network that didn't have to deal with a central corporate entity divvying up the resources. Well, that and the fact you could get music without paying for it.

"There has been a lot of debate about ethics and P2P," says Raymond Blackwood, UAT Manager of IT. "But it's all in how you use it."

"At UAT we teach integrity as a core value and digital citizenship from day one. It's about knowing right and wrong and understanding the implications of your actions."

The majority of P2P systems are run from legal P2P sites. The sites are legal, but using them to download copyrighted material without paying for it is not. Some users may download files through P2P services without realizing that the files may be protected by copyright. Sharing these files without the permission of the copyright holder is a breach of international law. In the US, each state has its own laws on this activity.

A federal court judge in 2007 threw out a case against file sharing companies Streamcast Networks and Grokster, stating that they cannot be held responsible for how the software is used, thus effectively declaring the software legal. It is the way it is used that can be illegal.

In 2007, Comcast, one of the largest broadband internet providers in the U.S., started blocking and jamming P2P applications such as Bittorrent. Some Internet observers are critical of such blocking and say this is just another way that large corporations are trying to control use and content, and to force users to a client-server based network. This creates financial barriers to small content providers and individuals because client-server arrangements are much more expensive to set up than P2P.

Read more
uat.edu/p2p

From Left to Right: Gareth Coles, Nick Thomas, Erica Faccone, Michael Palmer, Vanessa Ruiz

App Phone Halo helps you cut your losses

Every day about 164,000 Americans lose their phones. If you've ever been one of them or have lost or misplaced keys or something similar, you'll know just how time-consuming and stressful it can be. With Phone Halo, you'll pretty much be able to avoid all that hassle.

The Phone Halo transmitter turns your Blackberry or Android – and soon your iphone – into a portable finder by integrating Bluetooth and GPS technology with a smartphone app. Phone Halo creates a wireless link to your gadgets and delivers a high-pitched alarm to remind you to take them with you.

About the size of a rubber eraser, you clip the transmitter to a key ring, wallet or other item. If you misplace your phone, clicking the transmitter button starts your phone ringing, even when in silent mode. Mislay the item with the transmitter and the Phone Halo App can set the transmitter beeping. If you lose your phone or a linked item, Phone Halo will text the GPS coordinates plus send a Google Map showing its last known location via e-mail. It can even broadcast an alert through Facebook and Twitter.

Of course, Phone Halo's probably not much help if your phone is in a laptop case with the transmitter attached and you've left the case on a train now hundreds of miles away from you. Other than that though, it could be perfect for any geek with better things to think about than where their phone is.

UAT Students Take Top Spot in AVNET® Android App Challenge

UAT students Evan Hjelmstad and Trey Wilson took first place in the fall Avnet Tech Games Android™ App Challenge. The programming-intensive contest netted each undergrad winner a $1,000 scholarship and a Motorola Droid smartphone. The Avnet Tech Games (ATG) is an annual college technology competition that provides students with an opportunity to apply what they learn in school to real-world scenarios and compete for prizes. Competitors were provided with a Google Android software development kit, instructions and software requirements and had seven weeks to complete their game.

This year, student teams were required to program a "number slider" puzzle game compatible with the Android platform. Similar to the small plastic game you may have played as a child, the puzzle involves moving a series of numbered tiles to get them in the correct order. In addition to the game programming, the teams were also required to produce both technical and user documentation and were judged on that as well. Evan and Trey put their own spin on the requirements in order to set themselves apart from other competitors by adding difficulty levels with uniquely-shaped grids, a move counter and a clock timer. "The final product was our interpretation of the rules and requirements documents Avnet gave us," Trey noted.

but that's not to say the development of their entry went entirely smoothly.

Evan and Trey, both software engineering majors at UAT, knew each other on campus and had taken a Java class together prior to the contest. Trey said, "Both of us think very differently which can lead to arguments, but nothing serious – we stay friends. Our coding styles are different, which can lead to re-writes, so we argue about that, too. But, we both still work together well, learning from each other along the way." Trey has a Linux background and is committed to Open Source, while Evan is a Windows guy and not really that into Open Source.

Prior to the contest, Evan and Trey had been throwing ideas around, but because of their different school schedules they had decided they wouldn't have enough time to submit an entry. But, in true Geek fashion, they eventually locked themselves away for four days to complete their game and submitted it on the last day before the deadline.

Although both were surprised by their victory, Evan admitted that they both knew they put in a worthy effort, "Trey and I knew that we did a solid job on the project but were still worried that another team had been able to put more time into it than we had. The only real issue we had was that the entire project was done in Java and, as we can all agree, Java is an inferior language."

STATS

WHO: Even Hjelmstad and Trey Wilson, Software Engineering
WHAT: Avnet Android App Challenge
THE GAME: "number slider" puzzle game
THE PRIZE: $1000 scholarship and Motorola smartphones

See a YouTube video of Evan talking about the contest here:

www.uat.edu/challenge

UAT ALUMNUS HITS THE BIG SCREEN WITH AVATAR

Rick Ravenell

Rick had to create visual effects and animations of the screens with which the actors in the film interact.

Images Courtesy of Twentieth Century Fox Film Corporation and Dune Entertainment LLC. All Rights Reserved.

ALUMNI PROFILE

NAME: Rick Ravenell

PROFESSION: Freelance VFX Arist, Los Angeles, CA

ALUMNUS: Class of 2007

MAJOR: BA Animation and Digital Video

HOME STATE: Hawaii

Los Angeles, United States

Images Courtesy of Twentieth Century Fox Film Corporation and Dune Entertainment LLC. All Rights Reserved.

Ever heard of Avatar?

We have, too. Everyone in the world has either heard of or seen this epic, multi-award winning James Cameron film that broke records for both budget and box office revenue. Few, however, can say they've been a part of making this film, thus making history. One of these esteemed few is Rick Ravenell, one of UAT's own.

When Rick talked with Geek411, he fulfilled our expectations of geek-cool by riding up on his Suzuki Gixxer, leather clad and sporting blue jeans lined with Kevlar. This must be why he was able to deliver when his boss on the *Avatar* project gave him a shot and told him "make this look cool." When he went to the 3D cinema to review his work with his cohorts, he didn't disappoint. Still, there were usually changes to be made following these shot review sessions. If Rick himself didn't catch it, James Cameron always did. "Jim has an eye like a laser; he picks out the slightest discrepancies," Rick said.

Just how does a UAT alumnus get to the place in his career where he's on a "Jim" name basis with the great James Cameron? Two parts talent, two parts education (UAT style), lots of hard work, and (perhaps most importantly) networking. In fact, it was Rick's UAT roommate – already on the Visual Effects team for *Avatar* – who got him the job. Rick's advice to UAT students currently aspiring towards rewarding careers was to "make sure you make friends, be nice to people, and keep track of them. They can all be important future connections in the industry."

Rick graduated from UAT in 2007 with a double major in Animation and Digital Video. Before that, he attended a university in Hawaii where he majored in traditional art. During the year he spent at his first school, Rick completed most of his base requirements and took additional classes in art, drawing, painting and composition. When asked why he made the move to Arizona to attend UAT, Rick said,

"I knew art was what I wanted to do, I just wanted to do it with a computer."

With this goal in mind, Rick set out to look for the best animation and digital video schools in the country. When he came across the UAT website, he read through some information and ordered a new student packet. That was all it took. Rick found where he belonged and made his decision. He sent in his application, was accepted, and moved to Arizona without ever having stepped foot on campus.

He got to work right away, averaging between 18 and 21 credit hours every semester without a summer break.

did you know...

Avatar is the highest grossing movie of all-time, beating the movie Titanic's record of $1.85 billion held since its 1997 release.

"UAT was a self-driven, individualized curriculum that gave me the chance to be proactive about shaping my education," Rick said of his alma mater.

After his first semester working with After Effects and Combustion, Rick realized his passion for visual effects. This particular discipline was not represented as a major at the time, so Rick worked with UAT professor's Paul DeNigris and Arnaud Ehgner to shape his curriculum and make it fit what he wanted to do. In the end, it was a combination of Digital Video, Animation and a special topics class Rick created with UAT professors to specifically work in the field of visual effects. "The Digital Video and Animation profs were great in working with me, and then I started the special topics class for visual effects with Arnaud, which helped so much."

Some of Rick's most memorable and helpful classes at UAT were not, however, within his field of study. "I took a couple classes as a freshman that were amazing. One where I learned how the brain works and how my personality type works best with other personality types. Also, a class called The Psychology of Creativity, where we learned about where creativity comes from and did free form drawings to explore that."

Rick's traditional art roots never left him. In fact, he considers figure drawing to be an essential skill for any visual effects artist. "It's important to be able to look at a form, recognize it and reproduce it on paper or on the screen," he said.

This skill paid off when he joined the visual effects team for *Avatar*. Previous to landing the mega-feature gig, Rick worked on the television series Knight Rider, a job he also landed through a UAT contact. He had a basic website with a portfolio reel ready to go when the *Avatar* opportunity came up. The day he heard of the opening on the team, he sent in his resume and reel. He got the call only a few hours later and scheduled an interview for the next day.

"They looked at my website, watched my reel, and then with my connection, I was in. Just like that," Rick said.

He was hired to start immediately as a motion graphics artist, one on a team of just five others. "I came in and started pounding out shots. My boss gave me a composite image file of the graphic to be animated and told me, 'make it look cool.' So I did."

READ MORE
uat.edu/rickravenell

A New "Standart" in Top-Secret Cyber Sleuthing.

A New "Standart" in Top-Secret Cyber Sleuthing.

While still a high school student in the Phoenix metro area, Matthew Standart decided he wanted to pursue multi-media art and animation in college. He had also decided he wanted to go to Arizona State University. Before graduation, he attended a college fair and met a UAT Liaison, one of the "road warriors" who travel the country introducing UAT to students at college fairs and on campus at high schools. Even though Matthew was going to attend ASU, the liaison tipped him off to an internship opportunity at Fox Animation Studios in Phoenix. (Fox Studios, founded by legendary animator, Don Bluth, went out of business for a time, but has been resurrected and recently released the stop-motion animation film, "Fantastic Mr. Fox.") Matthew enjoyed his internship there and went on to enroll at ASU. To help pay the expenses of his undergraduate studies, Matthew found a part-time job working in technical support for a local company.

After several years of art courses and working in IT Tech Support, 9/11 occurred and Matthew decided to review his priorities. He says, "I really got into IT just to pay for art classes, but I decided to pursue IT more seriously because it seemed like I was learning skills that could take me into the 21st Century." At the same time, he recalled his experience with the UAT Liaison who got him his internship and, for that reason, he decided to transfer to UAT.

At UAT, he met Professor Diane Barrett, who was just starting a Technology Forensics major. He took a couple of classes in the new major and his interest and skill set blossomed and began to grow from there. By the time he graduated from UAT a year and a half later, Matthew was completely immersed in the field of technology forensics.

After working for a short period at a small IT company, Matthew got a job in technology forensics at General Dynamics C4 group, located in Scottsdale, Arizona, where he is involved in incident response, digital investigation and computer forensics. General Dynamics C4 Systems is a leading provider of network-centric solutions in the development, design, manufacturing and integration of secure communication, information and technology solutions.

His stellar work in Information Security has already earned him some serious recognition at General Dynamics – even from the CEO who rewarded him with free tickets and time off to attend a Spring Training baseball game a few months ago.

NAME: Matthew Standart
PROFESSION: Information Security Engineer, General Dynamics C4 Systems, Scottsdale, AZ
ALUMNUS: Class of 2007
MAJOR: Master of Science in Information Management
HOME STATE: Arizona

"I attend numerous seminars and conferences throughout the year and I have noticed that UAT is always at the top of the list for schools recognized and recommended for an outstanding education in information security."

Two important lessons Matthew says he learned at UAT are "diligence and hard work have a tremendous impact and contribution to success in both life and career," and "never to back down from a challenge to learn something new." He feels this has led directly to his success at General Dynamics. He is currently the lead on incident response and being promoted soon.

For more information visit www.uat.edu/cybersleuthing

Leonardo da Vinci Society

One of the World's Leading Biologists Receives Honor at UAT

On June 18, Dr. Lynn Margulis was inducted into the Leonardo da Vinci Society for the Study of Thinking during a luncheon with Arizona leaders from government, business and education on the UAT campus.

UAT created the da Vinci Society to honor the world's leading thinkers. Dominic Pistillo, founder of the University of Advancing Technology said, "At UAT we strive not only to provide an enriching educational environment, but to raise the bar with innovation, systems thinking and programming that will carry us through the 21st century. In that regard, we are honored to be able to present such a distinguished thinker as Dr. Lynn Margulis with the da Vinci Medallion."

Dr. Margulis, University Professor in the Department of Geosciences at the University of Massachusetts Amherst, is best known for her theory regarding the symbiotic origin of organelles, such as mitochondria, within cells. Although her endosymbiotic theory is generally accepted by scientists today, when she first published it in 1966, it was so revolutionary that it was initially rejected by mainstream biology and a sizable number of scientific journals.

Heralded as the modern Charles Darwin, Dr. Margulis has authored more than 130 scientific articles and 10 books. She is one of the leading proponents of the Gaia theory – that living organisms on a planet will act together symbiotically to positively affect the nature of their environment in order to make the environment more suitable for life. She opposes competition-oriented views of evolution, stressing the importance of symbiotic or cooperative relationships between species.

In addition to the keynote address at the da Vinci luncheon, Dr. Margulis made a number of presentations to students, faculty and staff while she was at UAT. She also had a well-attended book signing at Changing Hands Bookstore, Arizona's leading independent community bookstore.

Learn More
WWW.DAVINCITHINKING.ORG

OH HELLO
NICE TO MEET YOU
LOVELY WEATHER

MEET NEW FRESHMEN

SEE HOW OTHER UAT FRESHMEN HAVE ADJUSTED TO LIFE ON CAMPUS AT www.uat.edu/meetnewfreshmen

Erica Faccone

Major: Virtual Modeling and Design
Home State: Arizona

Erica was already deep into technology in high school. In fact, during her Junior and Senior years, she studied half time at her high school and half time at the East Valley Institute of Technology, where she took game programming classes, among others. She was able to transfer credits for her technology classes when she started at UAT and now she's well on her way to becoming an animator or special effects artist.

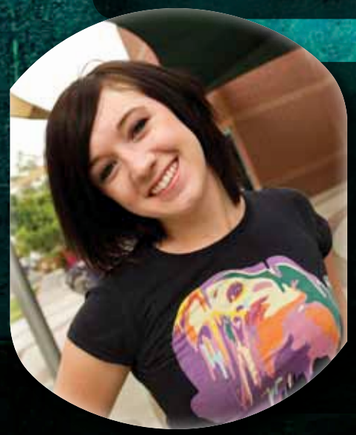
"I'm so excited and I love this school," Erica said. "My favorite thing is all the cool technology available to students here, especially for digital video. We work with $10,000 cameras – what's being used in the industry right now."

Ryan Carmain

Major: Robotics and Embedded systems
Home State: Indiana

Ryan started building robots in the fifth grade; in seventh grade he got involved in FIRST Lego League (FLL), he continued his passion for robotics into high school and as he says, "So, at this point I've had 18 seasons of robotics competitions."

"I discovered UAT at a college fair. I was walking up and down the aisles with my dad and saw the word, 'Geek,' on one booth, went over, found out it was UAT and they had a robotics major and I was hooked." As for the future after he graduates, Eric says, "I'd like to do interplanetary robotics with NASA."



Tylene Graham

Major: Digital Media
Home State: Indiana

Ty transferred to UAT from Chandler-Gilbert Community College in Arizona. The big difference she noticed between community college and UAT is that at UAT, she got right into classes in her major instead of having to spend two or more semesters in general education classes. "Also," she said, "there are lots of people here at UAT that are willing to help you succeed and, it's just way cooler here. There are conferences, events every week, always something going on – a bunch of fun stuff."

"And here's a good example of the difference between UAT and other schools – I attended a lecture at Arizona State by a graphic artist and he was using a slide projector, like people use for vacation slides. Here, we have digital projectors and screens in every classroom."

Unplugged and plugged in: A new generation.

Forty years ago, the sociologist Alvin Toffler wrote a book called Future Shock, in which he predicted that technology would advance so quickly that it would overwhelm people's capacity for integrating the new. He coined the phrase "future shock" to describe this reaction, which he defined simply as the personal perception of "too much change in too short a period of time."

Toffler was definitely right. And definitely wrong. Depending, it seems, on which people you are talking about.

There are plenty of people out there who are very vocal about their feelings that technology today has gone too far.

One now familiar critique of technology is its isolating effect, particularly on the Net Generation, aka the Millenials, aka Digital Natives. These young people, so the argument goes, are using digital devices and applications to retreat from society and split off into their own private computerized cocoons.

It's not difficult to find examples that seem to support this thesis. Consider this one, a true story told by a sixteen year old to her father. She went to a dance party at a friend's church. At first, none of the guys asked her to dance and she was feeling uncomfortable. Then her friend helped her out by giving her cell number to the guys. Soon her phone was blowing up with dance requests.

On the surface, this seems fundamentally troubling. If you can't ask a girl to dance in person, should you really have the privilege at all? But when you stop long enough to get over the "future shock" of this kind of high tech moment, it actually makes fairly good sense. No one likes rejection. So why not use the tools at hand (literally) to give yourself a little buffer.

If all goes well, and your request is accepted, you're going to dance and have fun together, and mission accomplished. It's not as if you're going to deploy some phone app to actually dance. In the case of a shy young man, you could even argue that texting could give him the courage to get in the game at all. So rather than disconnecting them from their female peers, the ability to text over a dance request makes the whole interaction possible. In another era, a guy too shy to ask a girl to dance might have sent over a friend to act as messenger. In that sense, texting merely takes out the middle man.

In a recent essay in Time Magazine, Nancy Gibbs shows that she gets it. About Millenials, she writes:

"They are the most likely to think that technology unites people rather than isolates them, that it is primarily a means of connection, not competition."

It all comes down to what you're comfortable with. Previous generations have had to transition from analog lifestyles to activities that rely on digital capabilities. Some of these they have embraced without hesitation. The vast majority of fifty year olds use cell phones and write emails without a second thought. Yet it's unlikely that they would text a potential dance partner for permission. (Although Internet dating services are a boom industry.)

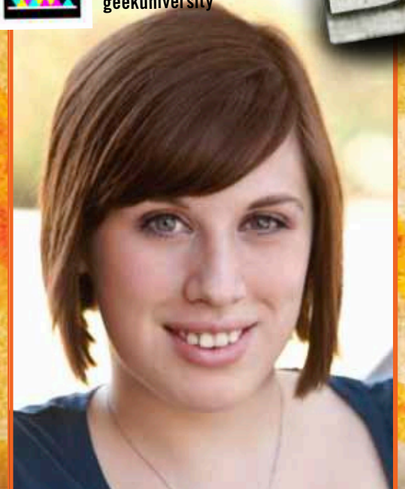
The difference is that for them, digital is a second language. It's like learning French in school. You might know your verb conjugations fairly well, but when you're relaxing you switch over to plain old English without a second thought. But for the Internet Generation—those born between 1980-2000—digital is their mother tongue. This group never had to retrain to live in the Age of Google, because they were born into it.

Yet the question remains: Is technology an isolating force in the lives of young people today?

Get the answer at
www.uat.edu/unplugged

STUDENT BLOGS

Check us out on Facebook
www.facebook.com/geekuniversity



Melissa Reese

My internship is now in full swing. I'm inking at least 15 boards from the storyboard a day. It's pretty stressful! It's going to be like this until the end of the semester. Sometimes I wonder how I can do this to myself! You would think I would stop accepting projects/internships by now.

Speaking of projects, I've started a small project of my own. Nothing major, just something to do in my spare time. I've been learning PHP and slowly creating a browser based MMO that I hope to release in a few months. It's a bit of a mix between Neopets and an RPG. It should be pretty awesome when I get it up and running for alpha testing!

Keep reading! Find out how Melissa is doing at www.uat.edu/meetmelissa

Nick Pittak

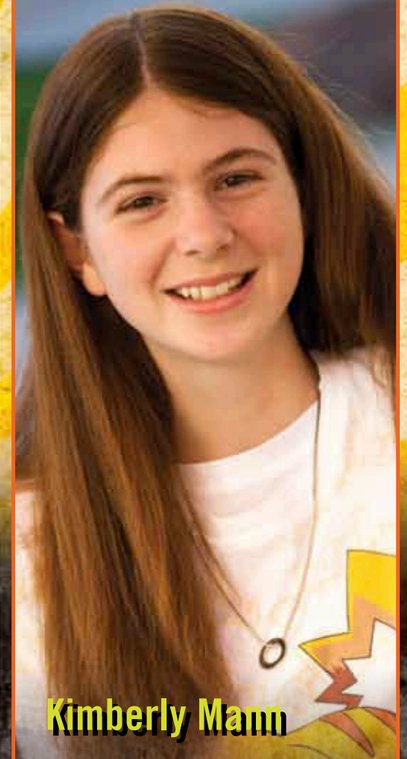
So to start out this week I was able to see how an actual video production shoot worked. It was so much fun but at the same time so much work. We shot for 2 days both of which were 13 hour days. But it was totally worth it. We had so much fun working together with everyone and I learned a lot from it.

After that I had a surprise visit from my girlfriend which made my week. I love her so much, and then on top of that my best friend Alex is here visiting too. So this weekend should be a lot of fun but this next week is going to be packed with a lot of work, but it shouldn't be too hard seeing how it's all stuff I love doing. Take it easy guys!

Get an update on Nick at www.uat.edu/meetnick

did you know...

Student Services becomes a regular part of a UAT student's life and at UAT, we're here for you! For a Campus Directory visit uat.edu/StudentServices.



Kimberly Mann

Semester's all in full swing now, I have a lot of work too. It's not too bad though, I'm still having a little trouble with ZBrush, but I'm going to the Academy tonight and my ZBrush teacher is supposed to be there to help us. Trust me, I need a lot of help haha.

I'm still gearing up for the Pokemon Championships on Saturday. I have a bunch of pokemon to make a possible team out of, though it's really hard to choose. Other than that stuff, not much else. I'm going to be doing a lot of modeling and texturing this semester. Hopefully I'll have a really nice full portfolio to show off at the end.

See what else Kimberly is up to at www.uat.edu/meetkimberly

Students develop games for DOD

When gaming is more than just play:

The U.S. Department of Defense first turned their attention to UAT when Shelley Keating, Network Security/Network Technology Professor, worked to help the University obtain its Center of Academic Excellence in Information Assurance Education designation from the National Security Agency. This designation assured the Department of Defense (DoD) that UAT was a highly capable and reliable partner, but when they found out that UAT excels in game development as well, additional doors opened.

Keating recalls: "When they heard we were really good at games, they said: 'we can use you to do some really cool stuff'. That's how the whole development agreement came about."

For the gaming proficiency necessary to bring projects to life, Keating invited Dave Wessman, one of the faculty's gaming gurus to work with her. It was an ideal collaboration, freeing each one to do what they did best. This ability to build teams across disciplines impressed the DoD and helped UAT win the projects.

Developing the Games

In creating *Social Miner* and *Cyber Hero*, both Keating and Wessman kept a hands-off approach in mind. "From the start, we assumed the role of high level managers," says Keating, "allowing the students to really take charge of these projects and use their own skills and abilities to move them forward."

For UAT students, this meant an exceptionally rich internship experience. "Most companies hire interns to do grunt work," says Wessman. "They are supposed to learn just by being in the environment even if all they are doing is stapling. Well our students get to learn by doing, and that's a much better bet."

In the case of *Cyber Hero*, UAT students are not that far removed in age from the target audience. Their own perspective proved to be invaluable in relating back to how they thought and felt in junior high school and what games appealed to them then.

"It was a great educational opportunity to help young people understand that defense in the future means securing our networks," says student Christopher Salat.

In the case of *Social Miner*, the students researched actual information security breakdowns caused by social media in order to design the game as realistically as possible. In one incident they turned up, the wife of a high ranking British Intelligence officer had posted photos from a barbecue on Facebook, in which numerous agents were shown, subsequently blowing their covers.

"It was great getting down to the nuts and bolts of real world experience," notes student Kayla Harris.

Social Miner: Get smart about what you post.

BACKGROUND
The explosion in social media has produced numerous new ways for people to connect and share information about themselves, their businesses and their lives. At the same time, all these new channels of information sharing pose a serious threat to national security by providing so many ways for sensitive information to be unwittingly leaked into unfriendly hands. So people need to get smarter about what they post.

THE GAMING DYNAMIC
Nobody likes to be scolded into submission. To succeed in engaging government employees and their families, *Social Miner* had to be designed as a positive experience that users could grow into. Also, people love their Facebook, Twitter and other social media. So the game had to show them how to use these safely without threatening their ability to enjoy social media.

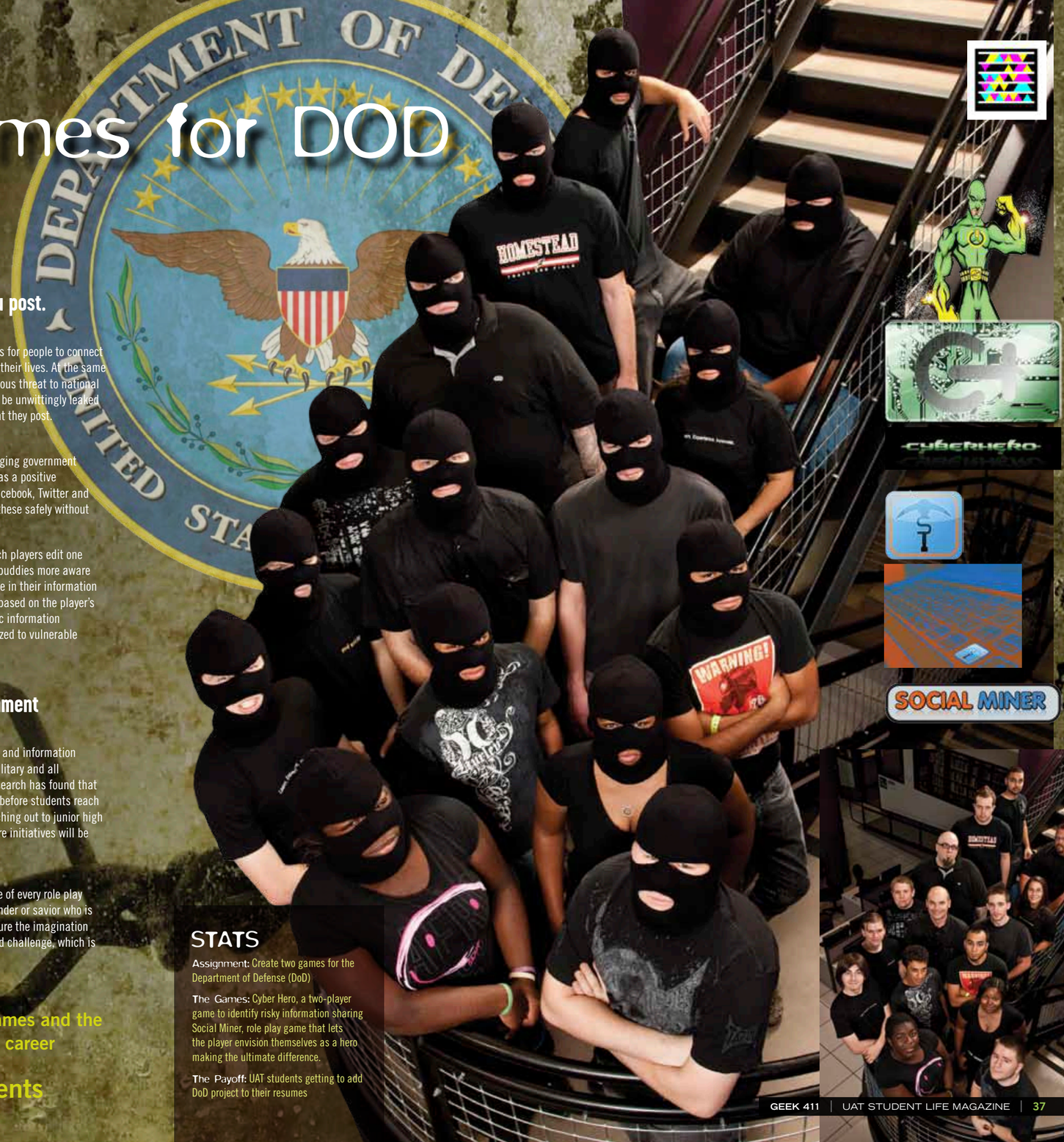
To achieve this, a two-player buddy system was devised in which players edit one another's social media to identify areas of risk and make their buddies more aware of information assurance issues. To motivate players to advance in their information assurance awareness, *Social Miner* is divided into three levels based on the player's ability. With each level, the difficulty in indentifying problematic information increases, so that users have to become more and more sensitized to vulnerable information and how it is being shared in order to advance.

Cyber Hero: Recruiting geeks to government

BACKGROUND
A major emerging need has been identified for network security and information assurance specialists in the public sector including the U.S. military and all segments of the federal government. At the same time, DoD research has found that the decision to enter into government service is typically made before students reach high school. A gaming solution presented the ideal tool for reaching out to junior high school aged students interested in the field of technology. Future initiatives will be aimed at even younger students.

THE GAMING DYNAMIC
Every kid, or kid at heart, wants to be a hero. That's the essence of every role play game. It let's the player envision themselves as that hero, defender or savior who is making the ultimate difference. *Cyber Hero* is designed to capture the imagination of the next geek generation and steer them towards a real-world challenge, which is securing the information systems of the U.S. government.

Find out more about these games and the key role they'll play in the students' career development. Go To:
www.uat.edu/dodstudents

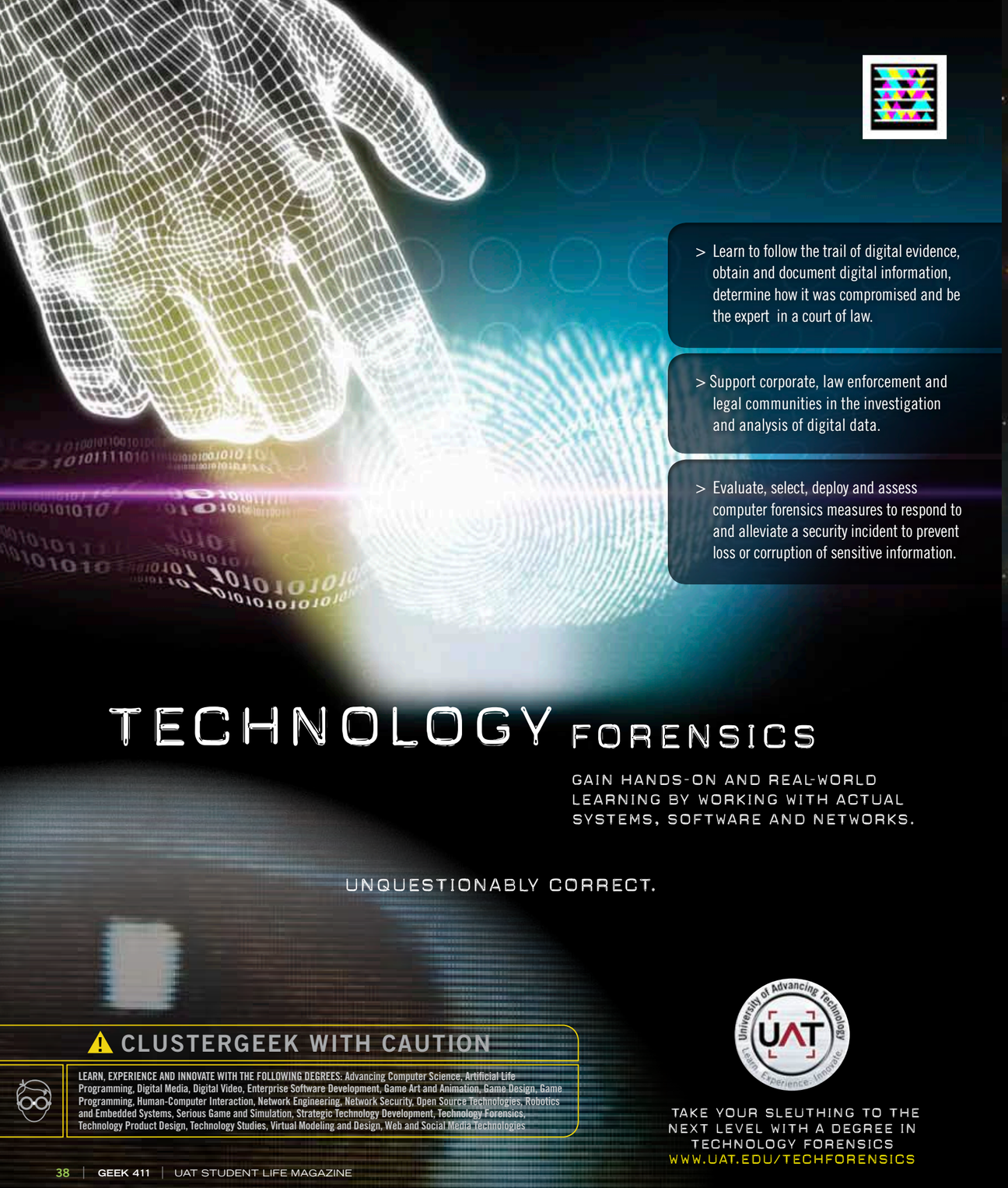


STATS

Assignment: Create two games for the Department of Defense (DoD)

The Games: Cyber Hero, a two-player game to identify risky information sharing Social Miner, role play game that lets the player envision themselves as a hero making the ultimate difference.

The Payoff: UAT students getting to add DoD project to their resumes



> Learn to follow the trail of digital evidence, obtain and document digital information, determine how it was compromised and be the expert in a court of law.

> Support corporate, law enforcement and legal communities in the investigation and analysis of digital data.

> Evaluate, select, deploy and assess computer forensics measures to respond to and alleviate a security incident to prevent loss or corruption of sensitive information.

TECHNOLOGY FORENSICS

GAIN HANDS-ON AND REAL-WORLD LEARNING BY WORKING WITH ACTUAL SYSTEMS, SOFTWARE AND NETWORKS.

UNQUESTIONABLY CORRECT.

⚠ CLUSTERGEEK WITH CAUTION

LEARN, EXPERIENCE AND INNOVATE WITH THE FOLLOWING DEGREES: Advancing Computer Science, Artificial Life Programming, Digital Media, Digital Video, Enterprise Software Development, Game Art and Animation, Game Design, Game Programming, Human-Computer Interaction, Network Engineering, Network Security, Open Source Technologies, Robotics and Embedded Systems, Serious Game and Simulation, Strategic Technology Development, Technology Forensics, Technology Product Design, Technology Studies, Virtual Modeling and Design, Web and Social Media Technologies

TAKE YOUR SLEUTHING TO THE NEXT LEVEL WITH A DEGREE IN TECHNOLOGY FORENSICS
WWW.UAT.EDU/TECHFORENSICS

The UAT admissions process can begin as early as your sophomore year in high school. This can be a great benefit to you, since it allows you to create a relationship with a representative from the University who can help guide you every step of the way. In addition, applying early helps ensure acceptance, and:

> Gives you access to UAT's Intranet
> Gives you access to your enrollment coordinator so they can help you and your family with this decision
> Keeps you connected with campus events and news
> Helps you become part of the UAT community

Who's admitted to UAT?

UAT's Admissions Office is looking for that student who is not only smart, but who will also be a fit with our geek culture.

Students that are accepted are passionate about learning in an environment designed around technology. For instance, a student who has been building websites, programming or building advanced robots is of more interest to UAT Admissions than someone who has not demonstrated aptitude and only has good test scores.

So...what's Next?

Prospective students may apply online at www.uat.edu/apply. Admissions requirements and the online application are both found on this page.

Soon after your application has been received and reviewed by our Acceptance Committee, you will be notified of your acceptance status. If you need help or advisement with the admissions process, or if you just have questions, please contact our Communication Center at 877.UAT.GEEK.

Spring 2011

Semester starts January 10, 2011

On-Campus Scholarship Deadline

> May 2011: **Early Deadline** November 10th, 2010
Final Deadline January 10th, 2011

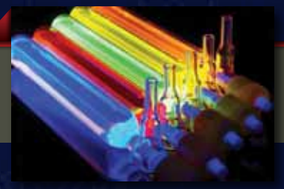
On-Line Scholarship Deadline

> **Early Deadline:** 90 days prior to your start date indicated on your application

> **Final Deadline:** 30 days prior to your start indicated on your application.

Did you know...

UAT offers on campus Bachelor's degrees in 20 different majors, online Bachelor's degrees in seven majors and Master's degrees in seven disciplines.





TAKE THE QUANTUM LEAP INTO QUANTUM DOTS

LIGHT IS LIGHT, *RIGHT?*

It's what you get when you hit the wall switch or strike a match or watch the sun rise. That is, if you're ever up early enough to see the sun rise, or awake enough to take it all in. But light is about to be revolutionized by a new technology just getting ready to hit the marketplace. It's called quantum dots, and it's going to change more than just the light bulb.

Quantum dots are tiny semiconductor crystals. We're talking tiny tiny, just a few nanometers in size (that's a billionth of a meter). The largest ones are no bigger than a single grain of sand. Quantum dots, also known as QDLED, use cadmium selenide to generate their own light, which is what the buzz is really all about. They are photoluminescent, a big word for being reactive to light, and electroluminescent, another major term meaning they are reactive to electricity.

These dots come alive when they are stimulated by either light or electricity, and emit a light whose color is determined by the dot's size and the material it's made from. This means you can precisely control the color of light being produced. When you think of all the devices and every day gadgets that rely on a light source and some sort of display using color, the possibilities for quantum dots, are, well, quantum.

QD ON THE QT

"NOT MANY PEOPLE KNOW ABOUT THIS STUFF YET, BUT IT IS GOING TO TAKE OVER THE MARKET PLACE," says UAT alum and instructor Joe McCormack.

Because of their nano scale, they are 40% more efficient than LCD and provide 30% more visible light. Those are the kind of numbers that get the attention of new product developers and spark the imagination of inventors.

Quantum Dot technology is already being used in lighting applications. These still rely on light emitting diodes (LEDs) as the light source, which is then passed through an optical filter coated in quantum dots. But in the long run, because they provide greater power efficiency and a softer, warmer light, quantum dots are expected to replace LED entirely.

It's starting already with mobile device manufacturer, LG, releasing products at the end of 2010 using the Quantum Dot technology. So keep an eye out for the first phone sporting quantum dots coming soon to a store near you.

"LIQUID CRYSTAL DISPLAYS (LCD) REQUIRE A SEPARATE LIGHT SOURCE THAT IS THEN FILTERED THROUGH. THE BIG DIFFERENCE FROM LCD IS THAT THIS GENERATES ITS OWN LIGHT IN EACH DOT." —Joe McCormack

THE POSSIBILITIES ARE MIND BENDING

Where else can you expect to see quantum dot technology in action? You may very well not have to look any further than your own laptop. Forward thinkers expect to see the QD technology applied to laptop screens on a broad basis within the next few years. Of course, what works for the laptop will work for the cell phone as well. Not to mention other digital display applications including in-store displays.

That in itself is an enormous market, but here's where it really gets interesting. The quantum dots are bendable! That's right, in the not so distant future, you could potentially see a digital display that isn't rigid. Warping computer screens? Sounds cool, but finding a purpose for it might be more of a long shot.

On the other hand, where we already see bending media is in the case of magazines and newspapers. Could this be the innovation that saves the printed word? Until now, it seemed like technological advancement was digging the grave of books, magazine and newspapers. These all seemed to be on the road to obsolescence, replaced by the Internet and digital readers like the Kindle and iPad.

SEE HOW QUANTUM DOT TECHNOLOGY COULD BREATHE NEW LIFE INTO TRADITIONAL MEDIA, READ MORE AT

UAT.EDU/QUANTUMDOTS

NOTE TO INVENTORS:

WHEN YOU'RE DEVELOPING A NEXT GENERATION ANYTHING, IT MAKES SENSE TO LOOK AHEAD TO HOW IT MIGHT GET USED IN THE FUTURE.

That's how quantum dots caught Joe McCormack's eye.

McCormack got interested in quantum dots as part of his analysis of emerging technologies that he could support with his own hybrid generation solar solution called the Solar Sheath. He's working on reducing the Solar Sheath to nano scale, and envisions it some day being incorporated as a power source for quantum dot driven devices.

The solar sheath is a hybrid solution because it draws on visible light, non visible wave length and kinetic energy. This gives it the kind of super efficiency that could align with the high efficiency standards set by quantum dot driven devices.

"EACH ITERATION OF TECHNOLOGY USES A LITTLE LESS POWER THAN THE PREVIOUS ONE,"

says McCormack, "as devices require less power and solar generation gains power, there will be a cross-over point where they are perfectly matched." McCormack plans to be standing at the intersection, ready and waiting when it happens.

WHAT'S HOT

HOT

GAME DESIGN AND PRODUCTION

MICHAEL EILERS
Associate Professor, Systems Development
BA, Arizona State University
MBA, North Central University

3D appears to be hot, especially after E3 this year, but they may be jump-starting the party a bit too soon; the installed base of customers with an actual 3D HDTV is going to be in the low thousands this year and probably below 100k for 2011 - many people just bought their first HDTV, they will not dump it for another one so soon. Nevertheless, Sony in particular is pushing 3D as a big feature in the future, albeit at a very premium price. 3D requires a rethink of the modern game engine, as almost all game engines right now use 2D components (lighting, sprites, particle effects, smoke, fog) that will have to be re-engineered for 3D.

HOT

ROBOTICS AND EMBEDDED SYSTEMS

RYAN MEUTH
Professor, Robotics & Embedded Systems
PhD Computer Engineering, Missouri University of Science and Technology

"Hella" has been proposed as the prefix denoting the number 10^{27}. This is similar to "Mega" for a million (10^6), and "Giga" for a billion (10^9). A "Hella" would be the name for a billion-trillion. Personally, I can't wait for my "Hella-byte" hard drive to arrive in my future-mail.

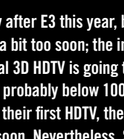
NOT

Music games with plastic guitars and drums (such as Rock Band and Guitar Hero) delivered their third iterations this year with a thud, and band-themed versions (Guitar Hero Van Halen) have absolutely bombed. This genre has reached saturation or just player burnout, and sales are spiraling down. Both companies are trying to juice the market by adding "keytars" and real six-string guitars next year, but that will most likely be too little, too late.

NOT

Recently a federal appeals court ruled against the Federal Communications Commission on net neutrality. In the case, Comcast was challenging the power of the FCC to tell Comcast how to manage its network, specifically pertaining to Comcast's ability to throttle bit-torrent network traffic. This ruling has the potential to drastically limit the ability for information to be freely and fairly distributed on the internet.*

** SEE THE P2P ARTICLE IN THIS ISSUE OF GEEK 411*



Do You Know What's Hot & What's Not?
If So, Let's Hear It. Email us at whwn@uat.edu.

For more what's hot visit www.uat.edu/whwn

HOT

NETWORK SECURITY

DIANE BARRETT
Professor, Computer Forensics, Network Engineering, Network Security, Information Security
Faculty Council Chair, Systems Development Group
Associate of Arts and Sciences, Remington College; BS, Remington College; MS, Capella University

For the third year in a row, Apple has been named the World's Most Admired Company by Fortune Magazine. What makes Apple so admired is that the company has changed the way we access music and design products to keep everything about us in a handheld device. Apple also ranked #1 in Innovation among all companies. Ironically, the SANS vulnerability report for this week put Mac OS X right behind Microsoft for the greatest number of vulnerabilities.

NOT

Identity theft and credit card theft remain in the top concerns of citizens. Protection against data exposure has not improved despite high visibility. For example, the GAO found that while the IRS had made some progress during the last fiscal year to improve security, it found that 69% of control weaknesses and program deficiencies in security remained unresolved or unmitigated.

HOT

HUMAN-COMPUTER INTERACTION

VESNA DRAGOJLOV
Associate Professor: Algorithmic Art, Advanced Photoshop, Multimedia Theory, Principles of Interactivity, 2D Computer Arts, Flash
BA, University of Novi Sad; MA, University of Belgrade; MA in New Media Studies, University of Denver

The latest issue of "Colors" magazine, published by Fabrica Design Research Center in Italy, funded by Benetton, provides a rich reading experience that I have not seen before. They have managed to seamlessly integrate the print and online environments by offering their readers video documentation along with printed text. What is so fascinating, is not so much a multimedia exposure, as we have seen similar attempts with a few other magazines; rather, it is the ease of use for the general public, as they naturally switch from one reading experience into another.

The technology is based on augmented reality concepts; the readers open to the page that contains a video link, and point it at the webcam on their computer. The camera automatically opens a video supplement to the article on the Fabrica site.

NOT

As much as I have been mesmerized by this new reading experience, there are still some challenges: for instance, as soon as I move the page, the video disappears. This problem reminds me of the drop-down menus on many websites - as soon as we move the mouse away from the menu, menu items disappear not giving the user even a chance to click on the provided links. We still have a ways to go to perfect human-computer interaction.

HELLO
HOW ARE YOU?
GOOD
WHAT DO YOU TEACH?

MEET THE FACULTY

One of the hallmarks of UAT is faculty who are as passionate about teaching as the students are about learning. UAT instructors engage and challenge students, whether in technology-based courses or general studies courses, to help them explore their passions and achieve their full potential.

Bret Church

Adjunct Associate Professor: 3D Animation, Modeling, Texturing, Basic Drawing, ZBrush
BA, Fine Arts – Art Institute, Phoenix, AZ

Bringing 13 years of game industry art and design experience to his students, Bret Church provides a realistic perspective on the industry in addition to teaching needed skill sets. He has worked for a movie production studio and for 9 years at Rainbow Studios in Phoenix, the company behind such titles as "MX vs. ATV," "Podracer" and "Darksiders."

He says, "It's really fun to share real-world industry knowledge and experience to prepare students to get where they want to be in industry."

"I can tell them, 'I've been there, this is what to expect, this is the way it works.' I especially like that UAT stays on the cutting edge of what's happening and technology being used in industry."

Gwen Doty

Professor: Speech Communications, Professional Skills Development (academic study skills, emotional intelligence, how the brain learns)
BA, Education – Arizona State University
MA, Oral Communications – Prescott College, Prescott, AZ

Author of three books on Education, who has also conducted teacher training, Professor Doty has a strong focus on using the very latest, brain-based teaching strategies. "I follow brain research, which I find fascinating, and apply what is learned about how the brain learns to my teaching," she says.

"UAT actively promotes higher level thinking skills, which are very important to me."

"This is a wonderful, diverse community of students, staff and faculty. UAT students are very curious, hands-on learners who really want to know the information they seek, not just to answer questions on a test. It's a very exciting place to teach."

Stephanie Maynard

Associate Professor: Biology, Math
BS – Arizona State University
MS, Education Technology – Northern Arizona University

With her background in Education Technology, it's natural that Professor Maynard uses an online book in her Biology classes. "Many students wouldn't be successful utilizing an online book, but it's perfect for UAT students," she says.

"I love UAT students – they ask the best questions and step up to every challenge."

"The unique culture at UAT really appeals to me because I'm a geek myself – I fit right in. It's a true community, a place where we all can be very innovative."

MEET THE ENTIRE UAT FACULTY
TAG THIS
OR VISIT US AT
www.uat.edu/facultybios

gadgets + GIZMOS

Power Wellies by Orange

The Power Wellies by Orange now make it possible for users to charge their phones by simply wearing a pair of boots. Through a process called the "Seebeck" effect, ceramic wafers inside the "power generating sole" of the boot create electricity using the heat from your feet. The power is then transferred and stored in the boot's heel until the phone is plugged in to the power output at the top of the boot. You can expect to find Power Wellies on the store shelves late 2010.

Projected list price: Not Determined

EyePhone

Researchers at Dartmouth College are studying new technology to further evolve smartphones. They've developed the EyePhone, a hands-free cell phone controlled by the movements of the user's eye. A camera on the front of the phone tracks the user's eye movement along the screen and a blink indicates "select." Users can make calls or search the Internet without once touching the phone display. While this phone is still in the development phase, researchers get closer to perfecting the technology every day.

Projected list price: Not Determined

Nintendo 3DS

Nintendo unveils its plan to release a portable game console capable of producing 3D effects without the use of impractical 3D glasses. How does it work? The console is comprised of two screens; the top screen is able to produce a stereoscopic 3D effect, while the bottom screen is a conventional 2D touchpad. To accommodate user preferences, Nintendo has included a depth slider on the side of the device to adjust the intensity of the 3D effect. Nintendo is staying mum on when this will reach stores. Keep an eye out in late 2010.

Projected list price: Not Determined

Immerz KOR-fx

The KOR-fx from Immerz has created the ultimate user experience for gamers, movie viewers and music fans all over. This revolutionary chest-worn device sends low-frequency vibrations into the chest cavity to allow the user to actually feel the experience, whether it be expositions in a video game, an earthquake in a movie or enhanced beats in a favorite song. Future versions of the KOR-fx expect to tap into the visceral nerve system to trick the user's brain to feel sensations such as wind, rain, weight shift and G-forces. You can pre-order this baby now or wait till December 2010 when it hits the shelves.

Projected list price: $190

did you know...

UAT provides all students with access to new and exciting technologies ...including the Microsoft Surface which can be found in the student commons.

Light Blue Optics Light Touch

Using multi-touch technology, Light Blue Optic's Light Touch instantly transforms any flat surface into a full color touch screen using an interactive projector. Infrared sensors detect motion and turn the projected image into a 10.1" diagonal touch screen in WVGA resolution. The Light Touch can be used in work meetings, retail spaces or for home entertainment. Light Blue Optics hopes to see its technology in use by early 2011.

Projected list price: Not Determined

Do the ChaCha

In technology, nothing stands still. Today's good idea is tomorrow's forgotten tool. Do you remember pagers? Unless your technology memory goes back over a decade, the answer is no. And even those of us who owned and used pagers have moved on to cell phones so completely that we can't really understand how we ever got excited about pagers to begin with. That's how ruthless technological evolution is. One day you're a star, the next day you're a total has-been.

So what's next for a current favorite, texting? Texting to talk has been going strong for quite a while and shows no signs of letting up. It's quick, it's affordable, it's fun, and you can text in areas where you couldn't complete a call if your life depended on it.

But, you can also use texting to search. That's what a service called ChaCha is all about. Appropriately enough, the name is derived from the Mandarin Chinese word cha, which means to search. Ask any question in plain English and get an answer within a few minutes. Why does it take a few minutes? Because someone on the other end of the line is researching your question and keying in the answer manually.

To submit your question, text 242-242 (spells ChaCha) or call 1.800.2ChaCha (1.800.224.2242). Normal text or voice charges from your carrier may apply.

From old school to new school?

On the one hand, you might not care how you get your answer as long as your answer comes. On the other hand, the idea that in this age of automation, someone is manually performing your search might seem a little old school.

Nevertheless, the service ChaCha offers is desirable enough to have competitors. KGB Answers is more familiar to some than ChaCha, thanks to more intense advertising. Of course, more advertising doesn't always mean you get better service. You'll have to make that decision for yourself, no matter what the ads tell you.

Travis Jones, UAT student majoring in Artificial Life, has an idea to help update the concept. He suggests shifting the interface onto a natural language processing platform. It's purely speculative at this point. But, speculation leads to invention.

If it were doable, it would free the ChaCha model from relying on an actual person or, ChaCha guide, to do the leg work. This could revolutionize the text search industry and open it up to millions more users. Is the technology ready today? Probably not. But as history teaches us, what's impossible now could easily become standard in the not too distant future.

Looking forward to content on demand

Another potential evolution of the text search is RSS feed technology, which could develop in the direction of generating web content on demand. In this case, your brief search answer could morph into a complete article. The arena of web content generation is a wide open one.

Today, Jones, who packs a Droid phone, points out that he can just as easily do a voice search on his mobile device. You can also text Google directly and receive their search results back on your mobile. While these are obvious alternatives to text searches like ChaCha, they come with a price tag attached. These search solutions require Internet on your phone, which can double your phone bill.

Bucks still the bottom line

No matter how far search technology has advanced, cash is still king. So it seems that as long as texting is a more affordable phone option than Internet, there will be a place for text search solutions like ChaCha and the next generations that follow it.

did you know...

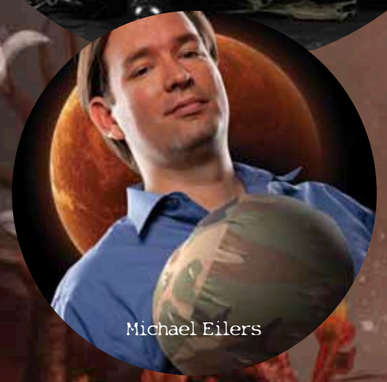
UAT provides a Technology Toolbox of resources where you can learn more about your chosen field of study. Check it out at uat.edu/technologytoolbox

Free App Helps Manage Mobile Calls and Voice-to-Text Transcription

After a year of limited previews, Google Voice is now available for everyone. It's a web-based app that allows you to control and manage all your phone conversations – mobile, home, work, whatever – from a single phone number. Call forwarding, voice mail, call recording, free text messaging and phone calls within the U.S., take voice mail messages, and set up four-phone conference calls – Google Voice does it all. The app even allows you to call from any of your registered numbers, wherever you are. For example, you can sit in the coffee shop with your mobile device and place a call from your business phone number. No one knows you're actually taking a break.

Even better, the app can automatically transcribe phone messages and send them to your Gmail email account as text – also free. Now you don't have to listen to every junk call that comes through on your phone. Just check email and delete the junk with a quick click. The transcriptions from voice to text aren't 100% perfect yet, but they are clear enough for you to make sense of the message. You can also automatically receive and reply to text messages by e-mail. If you use e-mail and IM more than text messaging, this will be a favorite feature.

See the Google website for more information and to sign up for Google Voice.



Michael Eilers

BRAIN MENDING

Exploring a new paradigm in gaming

Can gaming play a serious role in mental health?

Traditionally, doctors have doubted it, without ever having given it a real chance. And that's the problem that UAT faculty members Michael Eilers, Justin Selgrad and Ken Adams, along with UAT interns, are seeking to correct.

Working with Kinetic Muscles Incorporated, on a grant from the Department of Defense, Eilers and his team are developing a game designed to help soldiers returning from war with traumatic brain injury (TBI) regain their thought-ordering skills and help them interact effectively in society again.

The game is being developed with the direction of clinicians from Emory University in Atlanta, who work with TBI patients on a regular basis. Integrating their medical expertise, the game is intended to be a fun way for soldiers to relearn basic brain skills disrupted by trauma. Many of these soldiers were gamers before their injuries. It's hoped that the positive association and convenience of the video game medium will encourage them to exercise themselves in this manner.

Many of the details cannot be disclosed at this time. What we do know is that the game is tentatively titled *Mars Frontier* and is set in a colony on Mars. Users participate in a number of activities related to colonizing the planet, from driving rovers to building robots. All of these actions are designed according to the input of the scientists at Emory to stimulate decision making and other missing brain functions. As Eilers puts it: "We make it fun, they make it scientific."

We also know that through internships, UAT students are gaining real world experience, addressing the kinds of challenges they've been practicing for in their classes.

"I've been very impressed with the productivity of the UAT interns."

"They are not copying and pasting code. To see them think on their feet and problem-solve on the fly is a real vote of confidence for the education they've been receiving," says Eilers.

The plan is to rotate in a new team of interns each semester as development proceeds. The game will soon go into testing and could be deployed widely and affordably if all goes well. This could represent a new paradigm in gaming applications, and yet another industry breakthrough from the faculty and students of UAT.

Read More
uat.edu/marsfrontier

UAT UNIVERSE OF DEGREE PROGRAMS

Game & Entertainment

Managers who lead the game development process from idea and marketing opportunity through, design and production to, delivery and maintenance

Game Production Management — graduate

Programmers who create and test the systems envisioned by designers and artists to create functioning games on many types of devices

Game Programming — undergraduate, online

Game Art Animation — undergraduate, online

Programmers and developers who apply design principles of gaming to serious applications – medical, therapeutic, military and education

Serious Game Simulation — undergraduate

Digital artists who create the 2D and 3D images, textures, interfaces and objects used in games of all types

Game Design — undergraduate, online

The designers who create the stories, interactions and concepts that makes games entertaining and prepares these designs for production

Programming

Managers and leaders who oversee complex programming projects where needs are identified, methods are applied and production is lead from concept to delivery and implementation

ACS — graduate

The ability to diagnose a programming need and apply a matching methodology using new computer science technologies to create solutions

ACS — undergraduate, online

Artificial Life Programming — undergraduate

Programmers who can model patterns found in nature and apply them to create innovative programming solutions

Open Source Technologies — undergraduate

Programmers who are skilled in the tools of the open source community and can apply them to create innovative and evolving solutions

Enterprise Software Development — undergraduate

Developers whose specialty is in developing software data and web solutions needed and used by organizations

Applied Digital Science

Robotics & Embedded Systems — undergraduate

Implementers of the hardware and software used to create mobile and embedded robotic systems

Network Engineering — undergraduate

The architects of network systems that link business process both physically and digitally

Emerging Technologies — graduate

Forecasters who can examine technology trends and apply this analysis to future planning

Digital Arts & Technology

Virtual Modeling & Design — undergraduate, online

Technology artists who apply digital tools, with an eye for design, to create media and interfaces

Digital Media — undergraduate

Modeling of data in virtual 3D spaces to create simulations, animations and entertainment media

Digital Video — undergraduate

Innovatively applying the skills of directing, production, composition and writing with digital tools and techniques to create films and effects

Digital Security

Leaders within organizations who create the policies, systems and teams who ensure that data and sensitive information remain secure

Information Assurance — graduate

Investigators who support organizations, law enforcement and government agencies through the ability to discover and recover data contained in most any device

Technology Forensics — undergraduate, online

Protects organizations and individuals by designing and deploying systems and processes that ensure data and networks are safe from intrusion and failure

Network Security — undergraduate, online

Applied Technology

Web & Social Media Technologies — undergraduate

Creators of the content, service portals and infrastructures used to link people and organizations over the internet

Technology Leadership — graduate

Managers whose knowledge and understanding makes them skilled at learning technology projects that organizations depend on to succeed

Technology Innovation — undergraduate, graduate, executive

Information research, statistical analysis, implementing capstone project that applies to student's organization

map key

- centers of excellence
- degree programs
- master's programs
- on campus undergraduate degree programs
- online undergraduate degree programs
- graduate degree programs
- executive degree programs

DECIDE WHICH ONE IS RIGHT FOR YOU

UAT DEGREE PROGRAMS

ON-CAMPUS PROGRAMS

Bachelor or Associate of Science degrees are offered in the following disciplines:

- Advancing Computer Science
- Artificial Life Programming
- Enterprise Software Development
- Game Programming
- Human-Computer Interaction
- Network Engineering
- Network Security
- Open Source Technologies
- Robotics and Embedded Systems
- Strategic Technology Development
- Technology Forensics
- Technology Product Design
- Technology Studies
- Web and Social Media Technologies

Bachelor or Associate of Arts degrees are offered in the following disciplines:

- Digital Media
- Digital Video
- Game Art and Animation
- Game Design
- Serious Game and Simulation
- Virtual Modeling and Design

Master of Science degrees are offered in the following disciplines:

- Advancing Computer Science
- Emerging Technologies
- Game Production and Management
- Information Assurance
- Technology Leadership

UAT-ONLINE PROGRAMS

Bachelor or Associate of Science degrees are offered in the following disciplines:

- Advancing Computer Science
- Game Programming
- Network Security
- Technology Forensics

Bachelor or Associate of Arts degrees are offered in the following disciplines:

- Game Art and Animation
- Game Design
- Virtual Modeling and Design

A Master of Science degree is offered in the following discipline:

- Technology Innovation

More online at www.uat.edu/majors

FIND what's OUT next

Call your fellow geeks out

If you, or someone you know, is not plugged into the 411 community of ultimate geekdom, sign up for GEEK 411 magazine and receive a free UAT shirt.

GO TO WWW.10.ALPHAGEEKNATION.COM

Free Subscription!

The Journal of Advancing Technology (JAT) is really intended for academics and industry veterans in various technology disciplines. But, if you think you're geeked enough to handle the material, we'll be happy to provide you with a free subscription. Are ***you*** geeked enough?

Just fill out the tear-out subscription card in this magazine or email journal@uat.edu to get it delivered to your door, free.

Find Out More at www.uat.edu/jat

www.uat.edu

The University of Advancing Technology (UAT) is a unique, technology-infused NCA-accredited private university that was founded by a techno-geek for techno-geeks. Our mission is to educate students in the fields of advancing technology to become innovators of the future.

www.gamedegree.com

You love games. Live for games. Want to make your career about games. But, to break into the gaming industry, you'll need a degree.

www.networksecuritydegree.com

Start your education in Net Security, Technology Forensics or Information Security at an NSA-recognized institution.

www.alifedegree.com

Artificial Life Programming involves breaking accepted paradigms in the software engineering field and moving forward with paradigms that mirror life systems. It's a degree for innovative thinkers seeking a wide range of programming possibilities in a changing world.

www.g33ktest.com

What kind of geek are you? Take UAT's Geek Test and find out where you fit in the wide world of geeks!

www.geekedatbirth.com

Learn more about where you fit in at the University. What programs are you interested in? Start your future here!

BACK GROUND on UAT

The University of Advancing Technology (UAT) is the technophile's college experience—a geek-friendly community uniquely suited to provide students passionate about technology an ideal place to live and grow. UAT is a private university for geeks that merges the values of the traditional academy with the modern technology campus, a fusion that enhances our ability to fulfill the mission of educating students in the fields of advancing technology to become innovators of the future.

Learning at UAT extends from our students, staff and faculty to the institution itself. UAT's dedication to learning is reflected in our efforts to create and develop new ways of learning that focus on the personal mission and vision of every member of the UAT community.

UAT strives to foster knowledge creation and achieve academic excellence. We are at the forefront of developing academic programs that tend to be unique among academia or emerge years ahead of other school, such as Artificial Life Programming and Robotics and Embedded Systems, as well as our established Game Development majors that merged artistic and programming aspects long before other colleges chose that focus for themselves.

At the heart of UAT's curricula is a technology-infused campus in Tempe, Arizona. This fusion of the traditional academy with the technology-focused curricula creates a distinct, non-exclusionary and geek-friendly university in which students learn to value their own uniqueness and the power of technology in education.

ACCREDITATION

UAT holds accreditations and certifications from such organizations www.uat.edu/accreditation, the Council for Higher Education Accreditation and the US National Security Agency's Information Assurance Courseware Evaluation program.

UAT is accredited by the Higher Learning Commission and a member of the North Central Association.

HIGHER LEARNING COMMISSION
30 N La Salle St.
Chicago, IL 60602-2504

LOCATION

Tempe, Arizona (Phoenix Metropolitan area)

2011 TUITION

Undergraduate tuition: $9700.00 per semester
Graduate tuition: $6100.00 per semester
UAT-Online tuition: $5600.00 per semester
For more information on UAT Tuition please visit www.uat.edu/tuition

ALUMNI

UAT produces graduates who go on to great success with some of the country's largest companies, game studios and production houses. Companies such as Intel, Microsoft, Blur Studios, Sony Online Entertainment and Motorola have hired UAT graduates. Visit www.uat.edu/careerservices to see who has hired UAT alumni.

UAT IS COMPRISED OF

1200 plus students from all
50 states and
6 of the seven continents that average a
3.4 incoming GPA with a
14:1 student-to-faculty ratio, an average class size of
15 students who score an average of
1611 on SAT, and
24 on ACT, and are supported by
64 full- and part-time faculty members who are leaders in both industry and education.

* Information based on data collected from the September 2009 class of incoming freshmen

The National Centers of Academic Excellence in Information Assurance Education (CAEIAE) Program is an outreach program designed and operated initially by the National Security Agency (NSA) in the spirit of Presidential Decision Directive 63, National Policy on Critical Infrastructure Protection, May 1998. Additional information regarding the National Centers of Academic Excellence in Information Assurance Education Program may be obtained by contacting the Public and Media Affairs Office at (301) 688-6524 or by email at nsapao@nsa.gov.

TAG THIS TO READ MORE STUDENT Q&A OR VISIT www.uat.edu/askastudent

ASK A UAT STUDENT

Q: HOW DID YOU GET INTO TECHNOLOGY AND GAMES?

I grew up on a farm and never had any friends who played games; it was all about sports and farming. Then my cousin brought a video game over. I started playing and got way, way into it. More into it than anything ever before. And then I started noticing little details about it: "this seemed weird," "I wish it did that this way." My cousin said, 'Why do you do that? Why don't you just play the game?' I continued to play games and continued to be picky about them, so I decided to go into that field. And when I graduate I'm going to look for a job in the game industry.

"I continued to play games and continued to be picky about them..."

James Sanderson
Class: Senior
Major: Game Design
Home Town: "A small town nobody ever heard of in South Dakota"

Student Finds His Calling in Tech Forensics

Senior Daniel Dean

"The One Thing I've Done that I Really have a Passion For."

As technology continues its explosive evolution, becoming ever more pervasive in commerce and culture, the theft and corruption of information for illegal gain expands as well. UAT's Technology Forensics major was planned specifically to develop the skills and knowledge students need to launch a career in cyber crime fighting. Technology Forensics students develop a mastery of the methods used to obtain and document digital information, determine how information was compromised and provide expert testimony concerning the information by uncovering data in computers, networks and hand-held devices; recovering deleted, encrypted, corrupted or hidden information.

"I have enjoyed it so much that I'm now giving thought to going on to law school after I graduate from UAT to fully round out my Tech Forensics toolbox."

All of which came as a very pleasant surprise to UAT Senior, Daniel Dean. Originally from Cleveland, Dan started his education at the University of Akron where he took mostly general education courses for two years while he tried to decide what he really wanted to do for a career. At first, he thought he might stay at U Akron and give Information Systems Management a try, since he was somewhat technology oriented. But Dan discovered that systems management didn't really give him what he wanted. He was looking to get more hands-on exposure to technology. Also feeling unsatisfied that his general education courses didn't really seem to be leading him to anything definitive, he decided to get serious about finding out what alternatives were out there in terms of colleges and majors and which one appealed to him enough that he could consider making it his life's work.

As do most 18 to 20-year olds, Dan had a lot of experience with video games and when he discovered UAT, his research took a turn towards the possibility of a gaming degree. But on a subsequent visit to UAT's website, he found the Technology Forensics major. "It really grabbed me because it offered totally hands-on technology experience and, it was related to law, which I have always had some interest in," he said. He learned that Tech Forensics professionals provide expert testimony in court to support legal and corporate officials to prevent and prosecute data crimes. That was it – Dan transferred to UAT and dove into the Technology forensics degree program.

He found what he had been searching for. As he says, "Tech Forensics is the one thing I've done that I really have a passion for. Tech Forensics combines elements of technology and the law and we get to use all the most current software and methodology that are actually used in the field. I have enjoyed it so much that I'm now giving thought to going on to law school after I graduate from UAT to fully round out my Tech Forensics toolbox."

Dan has very much enjoyed the small classes at UAT that allow for real "face time" with professors in and out of the classroom. Before he graduates in December 2011, he will be doing an internship at Paraben Corporation in Virginia. Paraben is a leader in the field of specialized computer forensic tools and software. One of Dan's professors in Tech Forensics, Diane Barrett, who has years of experience in digital forensics and still consults in the field, is a friend of the CEO of Paraben and helped Dan set up his internship there. Dan also attended the recent Paraben Forensic Innovation Conference and characterized his time at the conference (where "everyone knew Professor Barrett," Dan said.), networking with industry professionals as "amazing." Once he graduates, Dan hopes to be working in forensics involving handheld and mobile devices.

Read more at www.uat.edu/danieldean

Hi, are you busy?
How can I help you?
I need some assistance

MEET THE STAFF

The staff at UAT is as passionate about technology as the students and faculty. And they are just as passionate about their mission to assist students in every facet of their college experience. We are unique because we have created, and continually nurture, a community of students and staff —self-styled geeks, many of them–whose personal and professional lives revolve around technology.

MEET THE ENTIRE UAT STAFF AT
www.uat.edu/staff

Lori **HAWKER**

Online Student Affairs Coordinator/Masters in Counseling from Ottawa University

Lori has been at UAT for close to three years. She began as an Enrollment Coordinator, assisting incoming students, but as the online side of UAT began to grow, she transitioned to her current position advising online students. Lori says, "I like helping people," and she manages to do just that, even though she may never have a face-to-face meeting with her online advisees. Her education in Counseling makes Lori a perfect fit for the job, even when online students open up about personal challenges, Lori is there for them offering an attentive ear and caring advice.

Marcus **WRIGHT**

National Liaison/B.A. from Point Park University

Marcus, who grew up in Pennsylvania on the border with Ohio ("I could walk to Ohio from my house."), visits high schools and makes presentations at college fairs as part of UAT's national outreach program. Most of the prospective students he talks to have never heard of UAT before, so he finds it very satisfying when he can introduce a passionate high school geek to a university that fits them well. He learned from his own college search that even similar-seeming schools can have different approaches to teaching as well as different student environments. He says that, "because UAT is such a unique place for a unique type of student, when I help make the right match, I know I've steered someone in the direction of the future they envision."

Jennifer **WAGNER**

Communications Coordinator/Masters in Human Relations from the University of Oklahoma

Jenn, a Phoenix area native, is usually the first person at UAT who talks to a prospective student when they request information about UAT. She enjoys helping students and parents understand what UAT is all about, "who we really are," as she says. A particular passion for Jenn is working with families, including campus visits. "It's really great when parents, whose student may have not "fit in" at high school have that "ah-ha" moment when they realize that UAT is a place for acceptance and fulfilling the potential of their student. When I hear them say, 'This is perfect for my student, exactly what she wants and needs,' I know I have been successful in my work."

LEARN EXPERIENCE & INNOVATE

Check out some 2010 Student Innovation Projects

Sean Hillmeyer
Bachelor of Science in Robotics and Embedded Systems

Designing an Experimenter's PCB for The Parallax SX28
Parallax Incorporated's SX28 microcontroller is a powerful platform to teach the basics of embedded systems design and robotics, among other things. This project purposes designing and documenting a new PCB with an enhanced feature set at a price point that students and hobbyists can afford.

Evan Hjelmstad
Bachelor of Science in Artificial Life Programming and Advancing Computer Science

Portfolio Selection of the NASDAQ and NYSE Energy Sectors using Genetic Optimization
Program gathers fundamental data on over 5700 companies on the Nasdaq and NYSE. User can then choose criteria for their portfolio such as size, risk and dividends. Program then uses a genetic algorithm combined with a custom rating algorithm to create a portfolio that fits their needs.

Jacob Sorensen
Bachelor of Science in Technology Management

The Human Aspect within Security
The greatest chink within any system aiming to secure themselves from external threats has always been the humans involved with said system. This project focuses on testing the ability of a social engineer to gain access to computer systems within various establishments with the use of a USB storage device.

Alijohn Ghassemlouei
Bachelor of Science in Network Security

Proactive Malware Prevention Software
Hypothesis: Using a proactive method of checking the credentials of software, computer systems will have a lower infection rate than the software that uses the older "blacklist" process of eliminating malware.

Royce Tucker
Bachelor of Science in Game Programming

The Potential of Artificial Neural Networks in Video Games
An assessment of the functionality of artificial neural networks in both present and future areas of the video game industry has shown the possibility for growth. An in depth study was conducted, assessing both the theory and implementation details behind artificial neural networks that could open the doors for a new standard in interactive artificial intelligence in video games.

Patrice Percy
Bachelor of Arts in Digital Media

Visual Elements for Senior Citizens
The mobile devices developed currently with new feature technology and design appeal offer fewer options and possibilities for senior citizens. The project is an overview of the senior citizen population, usability and functionality issues with respect to the relationship of color and is aimed towards awareness of the growing senior citizen population and specific market development for this age group.

DISCOVER MORE STUDENT INNOVATION PROJECTS AT
WWW.UAT.EDU/SIP

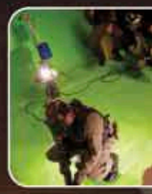
A P33K INSIDE THE

G33KOSYSTEM

We call ourselves the University of Advancing Technology and we're quite serious about that, especially the Advancing part. The University's mission is "To educate students in the fields of advancing technology to become innovators of the future." **It would be impossible to innovate the future if our own technology on campus was not constantly upgraded.** Here's a behind the scenes peek at just the most recent upgrades to the geek's playground we have created for UAT students.

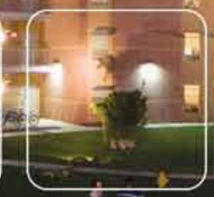
Innovative Tools

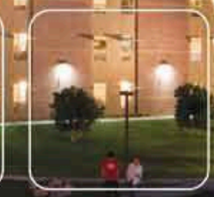
The UAT Technology team is investing heavily in cloud services so students can access software from anywhere in the world.

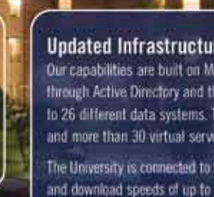


Latest Technology

The University now give students access to the latest in game development and human computer interaction through the EMOTIV.







Updated Infrastructure

Our capabilities are built on Microsoft enterprise server architecture. Our user accounts are managed through Active Directory and through a series of Single Sign-on technologies seamlessly connected to 26 different data systems. The University's datacenter contains more than 60 physical servers and more than 30 virtual servers dedicated for production and student use.

The University is connected to the Internet through a Metro-E fiber connection that allows for upload and download speeds of up to a gigabit per second. Using a combination of Boarder Gateway Protocol and Policy Base Routing, the University has connected the student dorm, Founder's Hall, with a 125 MBit WiMax wireless connection encrypted with Advanced Encryption Standard (AES-256). The Policy Based Routing ensures that if either provider fails, the University maintains connection.

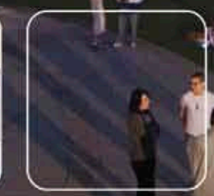
The campus offers free wireless coverage to all students and visitors and maintains a separate network for the University administrators.

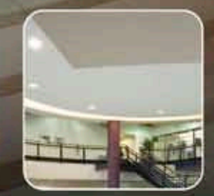
To the right you can see a few of more than 60 campus servers and new equipment being utilized in the Green Screen room.

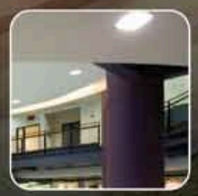
Updated Workstations

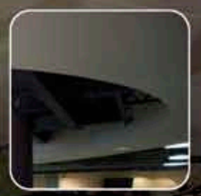
The University deploys enough workstations for local system usage for all users. One-third of them on-campus are replaced each year. These workstations have a minimum of 4GB of RAM (about a third of the workstations have 6GB of RAM), Nvidia video cards, and connect to the server environment with a 100MB switched Ethernet connection.

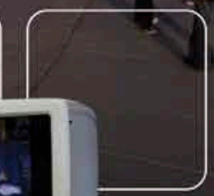
When necessary, the University deploys additional, specialty workstations for specific uses. Above you can see the Emotiv Headset; to the right, a PlayStation 2 TOOL development workstation; and at lower right, a 3D printer that copies and builds three dimensional models.

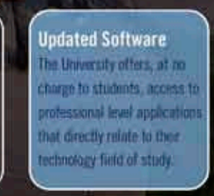






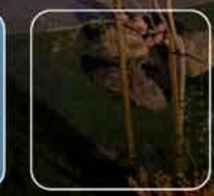


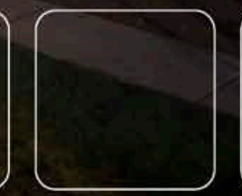


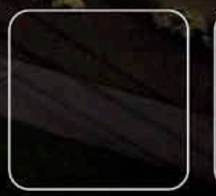


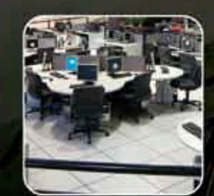
Updated Software

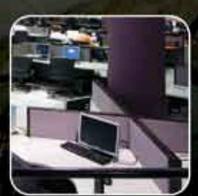
The University offers, at no charge to students, access to professional level applications that directly relate to their technology field of study.

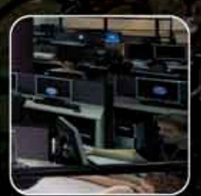


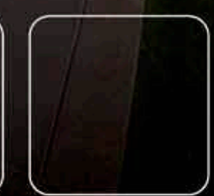


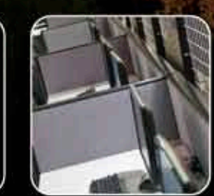


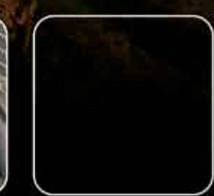












Log on to **www.uat.edu/g33kosystem** to get the skinny on the latest advances around the UAT campus.

CLUBS & GROUPS

www.uat.edu/clubs

Programming Club
The Programming Club was founded to create a group environment for members to work on projects and to share knowledge regarding the C/C++ language. The group develops a combination of game and application projects in an effort to build skills, foster teamwork and expand knowledge.

Build Club
The Build Club was established to share knowledge about various game engines and how they work. All levels of experience come together in this group to learn and teach the fundamentals of building game mods.

The Academy
The Academy helps game design and animation students build powerful portfolios by meeting to share new information, give tutorials, critique and offer peer-to-peer training. The Academy focuses on modeling/texturing, animation, 2D and 3D art.

Trading Card Game Club
The Trading Card Game Club plays a variety of Trading Card Games with an emphasis in Magic: The Gathering. The group offers both casual and tournament play.

TAPS
The purpose of T.A.P.S. (The Academic Paranormal Society) is to explore the world of the paranormal and the technology that is used to conduct paranormal investigations. The group conducts investigations and reports news regarding paranormal activity.

Web Development
The purpose of this group is to gain a better understanding of working on websites in a group environment.

Java user group
To join the Phoenix Java User's Group, all you need to do is register and attend. This group is aimed at anyone with an interest in Java technology. There are no membership dues.

Ancient Games
The Ancient Games Club is for games that are considered "ancient" to the student body because they are not electronic in nature. Our goal is not just to play games but to learn from them by not just exercising our mental muscles, but learning why games should be taught to children. For each game we will learn how to play it, but also strategies for winning, how to teach it, what it teaches and how to best use the game for educational benefit.

PC user group
Phoenix PCUG is based on the idea of users helping users learn computers. The Phoenix PCUG is a member of the Association of Computer User's Group (APCUG). The Phoenix PC Users' Group meets three times a month to reach users all across the Valley of the Sun. Come join us!

HATS
The H.A.T.S. Club is a network security group that focuses on expanding the art of Net Sec. The group seeks out and discusses new ideas in the hacking field and shares ideas about information security technology.

Photography
The UAT Photography Club takes regular trips around Arizona and surrounding communities to take photographs. The club hopes to showcase a lot of its work in coffee shops and galleries around the Greater Phoenix Area. The club will be going over many technical and artistic techniques with photography.

Net Security
DC480 is working on creating a device that will be entered in the annual DefCon conference for hackers. The DC480 group gets its name from DefCon (DC) and the local 480 telephone area code.

Rhythm Games
DDR (Dance Dance Revolution) is a game with a simple concept: it is based on hitting arrows that are flashing to the beat of the music. To achieve this, you must step on the appropriate arrows on the dance pad under you with accurate timing—hence it makes the illusion of dancing. Songs range from slow and easy to technical and fast—meaning there is a wide selection of difficulty. As you progress in game play the concept behind the four arrows begin to evolve into the coordination of foot movement and, if desired, dance ability. And that's all there is to it!

Anime Club
The purpose of the Anime Club is to bring together fellow students to watch and discuss anime, how it has evolved, where it is going and how the students can find a niche if they want to work in or with anime. Our goal is to promote Japanese anime.

Paintball
UAT has a competitive paintball team – Team Adrenaline! In-season games will take place January – April and then break for five months, then pick back up for October and November. Off-season takes place May – September and then back on for two months before we end the season in December due to finals and holiday events.

Cold Fusion User Group
Adobe's RIA technologies enable you to rapidly build and deploy the most engaging applications across browsers and on the desktop. The Phoenix Cold Fusion Users Group hosts special events to share exciting new information on Adobe's platform tools and technologies for building RIAs. Be part of the fun and excitement and join the rest of the Adobe developer community by participating in this group!

Extreme Sports Club
UAT's Extreme Sports Club offers skateboarding, rock climbing (indoor and outdoor), BMX biking, surfing and snowboarding!

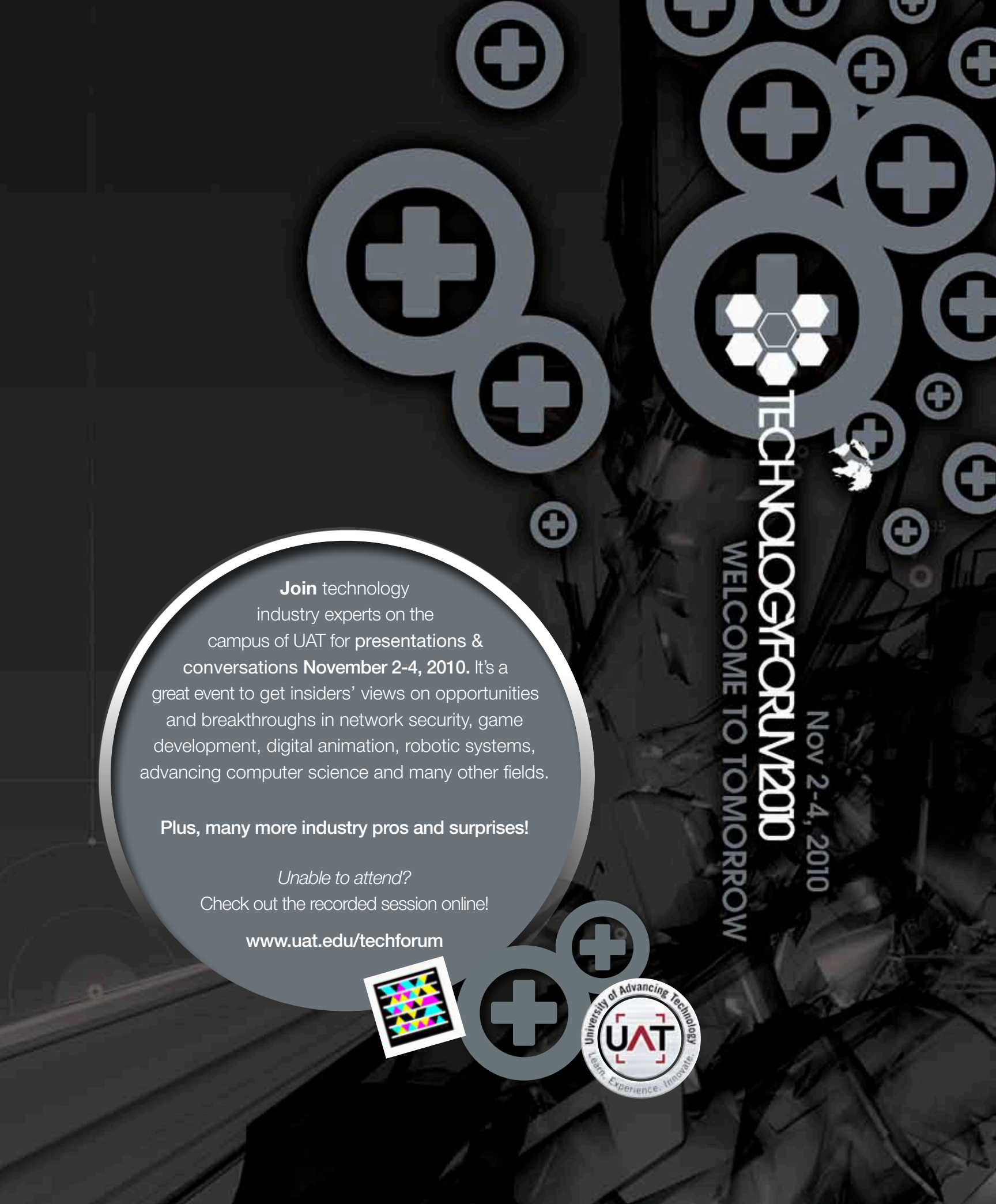
Fencing Club
We just recently competed against some of the best fencers in the country. Five fencers went into the competition electrically and two non-electrically. Come join our team!

Bible Club
The UAT Bible Club exists to provide a forum for the study and discussion of The Bible. We have a relaxed, informal atmosphere where everyone is equal and free to be heard. All are welcome to participate, regardless of beliefs.

Quarter_circle_forward_club (qfc)
We are the fighting games club. We do everything from SF: 3rd Strike to Tekken to Melty Blood, we play it all. Discuss techniques, moves, combos, etc. Not good at fighting games? Come anyway and practice with us!

did you know...

There are over 20 student clubs and organizations, such as TAPS, the Paintball Team, Net Security Club and the Photography Club. See more at uat.edu/clubs


TECHNOLOGYFORUM2010
WELCOME TO TOMORROW
Nov 2-4, 2010
Join technology industry experts on the campus of UAT for presentations & conversations November 2-4, 2010. It's a great event to get insiders' views on opportunities and breakthroughs in network security, game development, digital animation, robotic systems, advancing computer science and many other fields.
Plus, many more industry pros and surprises!
Unable to attend?
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