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04 TAG, IT'S YOU!
A NEW SPIN ON AN OLD GAME

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09UAT151

LOOK FOR THESE MICROSOFT TAGS

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

SNAP IT

Get the free app for your phone at
http://gettag.mobi

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. What's the big deal, you may wonder. This technology has been around for a while, you might say to yourself, mid-yawn… (Read more on page 4)

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:

- Real Estate - Link signs and flyers to market real estate
- 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 people to your profile, blog, site, or contact info
- Music - Link music lovers to the latest releases

TAG IT'S YOU!

A New Spin on an old Game

It's true that two-dimensional barcode technology, rooted originally in Japan, has been out there for over a decade and has been applied in mobile marketing already for at least six years. For example, the QR Code was originally created by the Japanese corporation, Denso-Wave in 1994. These bar codes resemble old school Pac Man mazes. QR stands for the "quick response" of the event triggered by the code embedded in the maze. Although they started out in the beginning as tracking codes for vehicle manufacturers, these QR Codes remain the most popular 2D barcodes throughout Asia to this day, currently used primarily for mobile tagging.

Now, Microsoft has emerged with its own new and improved version of the 2D barcode. They're calling it Microsoft Tag.

It has its own look – a little sexier than the black and white mass of dots that make up the Semacodes and other, similar 2D barcodes. Microsoft Tags are composed of colorful little interlocking triangles grouped together in a square. The triangles of each Microsoft Tag are arranged as a distinctive series that identify it as unique. Unlike past technology, the Microsoft Tags don't store any information, hence their smaller size. They are merely holding in their pattern a unique ID that can access information on Microsoft servers. This allows much more flexibility with how the Tags can be used because it can attach more and more varied information to each Tag.

Microsoft Tags usher in a whole new era to the game, adding dimension and suspense. Not only are the Tags smaller and cooler looking, but they're much more versatile in terms of application.

Just by pointing your phone at a Tag, it can instantly play you a movie trailer, dump you into a shopping cart with a discount code, give you directions and a map based on where you're standing, show you a menu, display a dynamic website, even fetch you a file download or load a new contact into your address book.

The new technology developed by Microsoft engineers for these Tags is called High Capacity Color Barcodes (HCCBs). Because the barcode is four colors, it needs a mere four symbols (four varied color triangles) to store one byte of information. The previous technology using the black and white matrix requires eight symbols to store one byte of information. This way, a Microsoft Tag can be as small as 0.625 inches, or one-eighth of an inch square.

Depending on its use, the colored triangle grid of the HCCB can vary in size (number of triangles), density (size of the triangles), and color count (number of colors used). HCCB can be either a four- or eight-color system. The eight-color HCCBs can amount to 3,500 characters per square inch, or 875 bytes of data.

Perhaps the most exciting part of this new technology developed by Microsoft is the ability for publishers and marketers to collect reporting data and know how many times it was seen, where and even by whom. This ability is due to the fact that Microsoft's servers are between the Tag and its final target, so information can be captured in the servers as well as relayed. This opens the door to vast possibilities in the evolution of mobile tagging, including one-to-one communications for custom, personal offers and promotions.

How does it work? Surprisingly simply. Microsoft made a downloadable application available for free that can be installed on several different types of phones, including Windows Mobile, iPhone, J2ME, Blackberry and Symbian S60.

The phone must have a camera and an internet connection, obviously. Once installed, all you have to do is launch the application on your phone, which will put it in camera mode, then point. The camera will see the Tag and instantly take you to the website or content it's associated with. Just like magic. **To get the application, go to http://gettag.mobi on your phone's browser.** Then, try it out by pointing it at the Tag on this page or any of the tags in this issue of Geek 411. Try it from different distances and angles. If you've experienced 2D barcodes in the past, you'll notice a significant improvement.

This whole business of object hyperlinking is full of potential, especially to the technically inclined mind. This is the beginning of the internet extending from the electronic into the physical world of objects, places, people. Think of it – what if this technology evolved to where you could point your device at the face of a stranger and instantly know more about her, like her name and favorite color, or maybe her favorite song would start playing. Like social networking but extended into everyday interactions. Those of us who choose to can become walking profile pictures, just waiting to be clicked on, added as a friend.

And if all that wasn't fun enough, you can even create your own Tags.

Microsoft is famous for their developer tools, so it's no surprise that they've made their Tag Maker service available for free online, allowing anyone to create their own tags and use them to demonstrate the technology. This service is currently in beta, so its cost-free access will inevitably run out once the official release happens. Meanwhile, the possibilities are mounting and a market is being created. What will our future innovators at UAT do with this new spin on an old game? Time will tell.

EVENTS

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

DEFCON

www.defcon.org
Las Vegas, NV
July 29 - August 1, 2010

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

GDC AUSTIN

www.gdcaustin.com
September 15 - 18, 2009

The Game Developers Conference® Austin focuses on connected games including online games, virtual worlds and social networking. Sessions will address the most pressing development challenges for connected games with tracks related to: Business and Marketing, Design, Social Networking and Community, Services, Production and Programming. GDC Austin will also feature two-day summits including Game Audio, Game Writers, Independent Games and the newly introduced iPhone Games Summit.

GEEK WEEK

Tempe, AZ
October 13 - 17, 2009

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.

TECHNO FORENSICS AND DIGITAL INVESTIGATIONS CONFERENCE

www.technosecurity.com
Gaithersburg, MD
October 26 - 28, 2009

The Techno Forensics & Digital Investigations Conference is founded on the principles of standardization in the field of digital evidence investigation. The conference will cover many of the general disciplines in the areas of digital evidence investigation to include some of the latest information on software and hardware solutions.

TECHNOLOGY FORUM 2009

www.uat.edu/techforum
Tempe, AZ
November 4 - 6, 2009

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

FLY-IN G33K PROGRAM

The UAT Fly-in G33K Program gives you the opportunity to tour our unique technology-infused campus, sit in on classes, eat at the campus cafe, meet with Admissions and Financial Aid representatives, attend special events planned by UAT Residence Life and Student Life, and, best of all, be the overnight guest of a current UAT student.

www.uat.edu/flyingeek
Tempe, AZ
October 16, 2009
November 6, 2009

FULL ACCESS 2009

www.uat.edu/fullaccess
Tempe, AZ
Nov 7, 2009

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!

GDC 2009

www.gdconf.com
San Francisco, CA
March 9 - 13, 2010

The Game Developers Conference defines the future of the multi-billion dollar game industry and shapes the next generation of entertainment. The conference provides an independent forum for expert developers from around the world to share ideas, build skills and learn about the latest technologies.

We Dream In Pixels

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Game Design
Serious Game and Simulation

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Game Programming

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Invasion of The Stay Puft Bunny

UAT Student Game Development Project Draws Attention at GDC

Project Rosestone – a student-led game development project at UAT – got its name from the literal translation: The color of the stone in the game world. It was the best they could do from a brainstorm session with too many brains involved, having to gain a majority consensus. *Rosestone* is affectionately referred to as the project's "code name," serving as a working title while the final touches are being added to the game.

Originally, there was too big of a response to *Rosestone*, with 25 or 30 people joining the team in its first semester. Herrick Erickson, the project leader, managed the team at that size for its first semester, then pared it down to 15 core people. Still, this was a sizeable team to try to wrangle every time they wanted to work on the game, so Herrick assigned smaller groups of team members to work in cells, regular time slots throughout the day and night that worked well for their schedule. That was during the game's second semester of development.

The project started in the Fall of 2007 when Erickson was a freshman. He had been a fan of the *Redwall* series of fantasy novels by Brian Jacques for years, which served as his inspiration when he decided to start a game project. The series features a cast of furry medieval characters in the forest battling it out over a castle called the Redwall Abbey.

"All I knew is that I wanted to start a project and build a game, but I was a freshman and I had no idea what I was doing," Herrick said.

His vision for this game project was a little grander than what had previously been attempted on the student project level – he wanted to build a game from the ground up. Most of the games being developed by student teams were modifications of existing game engines. These mods can end up completely unique and unrecognizable from the original game, but they inevitably have restrictions. There are parameters to work within when building a mod in terms of environments and physics and even assets.

Erickson's conception for this game would require a custom game engine, he knew. What he didn't know at the time was that this would be an unprecedented feat for a student project at UAT. His team started with a graphics engine and created a game engine on top of that – building into it the complete experience from graphics to physics. "Quite frankly, it was a lot of fun," Erickson said. "It was an amazing experience overall."

With the custom game engine, a world of opportunity was open to the team in the development of *Rosestone*. They were able to invent their own level editing, which is the ability to add any custom content that's needed. Essentially, the team started with a blank sheet. With the storyline from Redwall as a basis, they collaborated to create a world and a series of adventures all their own. Currently, the final objective of the game – the way to win – is yet undefined. In its current state, it's actually a "choose your own adventure" type of game.

"I worked independently designing textures for the world quite a bit, but I would have to bring these to Herrick and the rest of the team to make sure it would work before I took it too far," said Ryan Krall, *Rosestone's* lead Texture Artist. Being together made it possible to communicate about problems as they came up and work together to find solutions. Each member of the team also had the opportunity in this kind of group setting to explain his reasoning behind doing something a certain way, allowing everyone to learn from one another.

Erickson's favorite mistake was what he referred to as "the Stay Puft Marshmallow Bunny mistake."

This is because when they were done building the game world and wanted to test its physics and its scale, they created a test character, which was a rabbit. The test rabbit had no detail or texture, it was just a white shape for the purposes of a test, thus its resemblance to a marshmallow. When they dropped the rabbit into the world, it was so big that just one of its feet crushed everything in the world and actually tipped it on its axis, breaking the physics of the whole environment. "It took some programming to fix, but it was a funny way to discover that mistake," Erickson said, laughing.

The team went to GDC together to present their game to gaming professionals and to do some industry networking. "The people at GDC are really receptive to hearing about a student project. They have a lot of questions, like what tools we're using and what platform we're on. They like to see that we can pull together and organize as a team," said Marcus Staples, *Rosestone's* lead Game Designer. He and the rest of the team members who attended GDC left with quite a few promising leads for the future of their careers.

As *Rosestone* wraps up, the team members are branching out to other projects, using the techniques they've learned and the skills they've sharpened for other endeavors. Their hard work on *Rosestone* has paid off, singling them out as some of the most talented and sought-after students to have been involved on a project.

Marcus Staples summed up the benefits of student projects beautifully: "*Rosestone* was our anchor learning experience, our foundation. It was really my defining moment in college, when I worked on *Rosestone*, because it taught me the skills that I needed for all these other projects I'm involved in. It will help me to get a job and get into the industry when I graduate."

Ryan Krall – Texture Artist

Herrick Erickson – Project Lead, Game Design Major

Michael Sass – Programmer

Marcus Staples – Lead Game Designer

Landis Casner – Game Designer

For more info, tag this, or go to www.uat.edu/projectrosestone

OTAKUS INVADE JAPAN

otaku means "geek" in Japanese

In March of this year, eight students from UAT's Advanced Japanese Language course got the opportunity to spend 13 days touring Japan with their professor, Kumiko Gahan. Professor Gahan characterized the trip as a great learning experience – not just sight-seeing-- for very good students. They visited cities and sites of interest from Tokyo to Hiroshima, so while the trip required energy and stamina, all reported having a great experience.

The group saw everything from the oldest wooden building in the world (Horyuji temple in Nara) to the very latest robotics technology that is being developed in Japan. Other highlights were the time spent in Akihabara, Tokyo's world-renowned electronics shops district, and a visit to the Future Innovation Museum.

Professor Gahan said her students could not believe the density of people who live in Japan's major cities – it's much more crowded than cities in the U.S. She also mentioned that she has already had inquiries from current, and even prospective, UAT students about whether the trip will be offered again.

JAPANESE SPEECH CONTEST

Most of us aren't really all that comfortable with the idea of getting up and speaking in front of a group, even if it's classmates. Imagine how you'd feel if the group consisted of an audience and judges. And, oh yeah, you had to speak in Japanese.

Recently, four UAT students met that challenge and excelled. At the 17th Annual Japanese Speech Contest of Arizona, students David Lin, Ian Church and Lonnie Mann took first, second and third place in one of the four categories for second-semester Japanese language students.

UAT had four representatives in this year's contest - Church, Lin, Mann and Josiah Lebowitz. They were first required to write their presentation in Japanese kanji on Japanese essay paper – landscape orientation, split into two columns – using one and a half pages.

Lin's presentation recalled his first experience making curry. "A half a year ago, a friend of mine - a UAT student – made curry for me, and I thought it was great. I tried making it for myself, except it was terrible – seriously, it was awful," he said. His presentation also won the grand prize among more than 50 contestants.

Understanding and practice are the keys to success, not just rote memorization, according to Mann, "It's much easier if you know what you're saying. If you're just sort of memorizing the sound, then if you get lost, you have no idea where you are."

The UAT contestants succeeded with help from UAT language instructors Gavin Regnaert and Kumiko Gahan conducting mock competitions to prepare.

"This is the first time that UAT has had a Japanese program that could go to a competition, so I think they're grateful that we're trying to make the school look good," said Church.

For his grand prize win, Lin received roundtrip airfare to Japan and a weeklong railway pass good throughout the country.

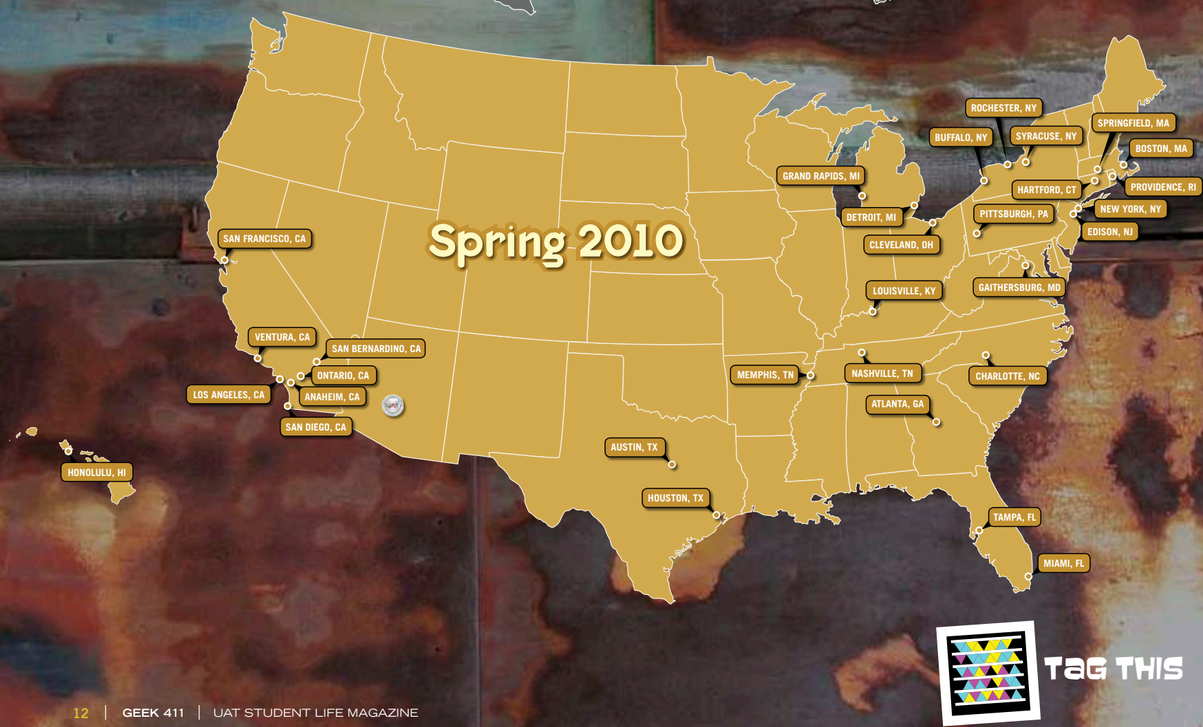
Gahan commented that this year's contest was tough, making UAT's accolades all the sweeter. "We've had the same chief judge for the last (probably) 10 years or more. At the end of his closing speech, he said this year's contest was very tough - very good, high level."

Gahan is also encouraging students in each of her classes to participate. "I actually already did in my last class, because now they probably think they've heard the name of UAT and that they know that UAT students got that 1-2-3 prize, so they probably expect more next year, I believe," she said. ***"The possibilities are there and we actually proved we can really do it."***

Travel Schedule

Did you know...

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



TAG THIS

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 2009 NACAC Schedule

BIRMINGHAM	Sun., Sept. 20	1:00 pm – 4:00 pm	Birmingham-Jefferson Complex Birmingham, AL
BALTIMORE	Mon., Sept. 21 Tues., Sept. 22	9:00 am – 12:00 pm 6:00 pm – 8:00 pm 9:00 am – 12:00 pm	Baltimore Convention Center Baltimore, MD
GREATER PHOENIX	Sun., Sept. 27	12:00 pm – 3:30 pm	Phoenix Civic Plaza Phoenix, AZ
GREATER WASHINGTON DC	Tue., Sept. 29	9:00 am – 1:30 pm 6:00 pm – 8:00 pm	Washington Convention Center Washington, DC
MINNESOTA	Wed., Sept. 30 Thurs., Oct. 1	9:00 am – 12:30 pm 4:30 pm – 8:00 pm 9:00 am – 12:30 pm	Minneapolis Convention Center Minneapolis, MN
BATON ROUGE	Thurs., Oct. 1	9:00 am – 12:00 pm 6:00 pm – 8:00 pm	Baton Rouge River Center Baton Rouge, LA
CHICAGO	Sat., Oct. 3	11:00 am – 3:00 pm	Navy Pier Chicago, IL
LONG ISLAND	Sun, Oct. 4	11:00 am – 4:00 pm	Nassau Veterans Memorial Coliseum Uniondale, NY
MILWAUKEE	Sun., Oct. 4	12:00 pm – 3:30 pm	Midwest Airlines Center Milwaukee, WI
CINCINNATI	Sun., Oct. 11	1:00 pm – 4:00 pm	Duke Energy Center Cincinnati, OH
ST. LOUIS	Sun., Oct. 18	12:00 pm – 3:00 pm	St. Louis University St. Louis, MO
SEATTLE	Sun., Oct. 18 Mon., Oct. 19	12:00 pm – 4:00 pm 9:00 am – 12:00 pm	Washington State Convention & Trade Center Seattle, WA
SPOKANE	Thurs., Oct. 22	9:00 am – 12:00 pm 6:00 pm – 8:00 pm	Spokane Convention Center Spokane, WA
JACKSONVILLE	Sat., Oct. 24	12:00 pm – 4:00 pm	Prime F. Osborn III Convention Center Jacksonville, FL
PORTLAND	Sun., Oct. 25 Mon., Oct. 26	12:00 pm – 3:30 pm 9:00 am – 12:00 pm	Oregon Convention Center Portland, OR
BOISE	Tue., Oct. 27	9:30 am – 2:30 pm 6:00 pm – 8:00 pm	Boise Centre on the Grove Boise, ID
FT. LAUDERDALE	Thurs., Nov. 5 Fri., Nov. 6	5:00 pm – 8:30 pm 9:00 am – 1:00 pm	Ft. Lauderdale/Broward County Convention Center Ft. Lauderdale, FL
ATLANTIC CITY	Thurs., Nov. 12	9:00 am – 12:00 pm 6:00 pm – 8:30 pm	Atlantic City Convention Center Atlantic City, NJ
PHILADELPHIA	Sun., Nov. 15	11:00 am – 3:00 pm	Pennsylvania Convention Center Philadelphia, PA
INDIANAPOLIS	Mon., Nov. 16	9:00 am – 12:00 pm 6:00 pm – 8:00 pm	Indiana Convention Center Indianapolis, IN

*Spring 2010 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.

Community Service
THE GEEK WAY

Read more at www.uat.edu/CommunityService

UAT organized a community service alternative for undergrads with their volunteer-based Destination Geek program, creating a new tradition. Residence Life Coordinator Warren Jones, organizer of Destination Geek, wanted to provide on-campus students and employees with unique activities to benefit the greater Phoenix area and positive feeling of accomplishment. Recently, UAT held their second annual Destination Geek event. This year, students and staff provided their services for the Muscular Dystrophy Association (MDA), Camelot Therapeutic Horsemanship and the Arizona Humane Society.

Jones said, "I'm hoping that students and staff get the sense that just a simple five hours out of your day - four to five hours out of your day - can make a world of difference to an individual, to an animal or to an organization. The return is phenomenal."

Assisting the MDA

UAT assisted the Greater Arizona Chapter of the MDA nonprofit with folder assembly for their "Stride & Ride" fundraising event and the creation of information packets for the "Lock-Up Jailbird" fundraiser as well.

Students Andrew Gamble, Digital Animation major, and Brandon Gilmore, Game Art and Animation major, among others, were enthusiastic about their efforts to help the disadvantaged and their supporters. "It was a great opportunity for me to contribute to community service," said Gamble. "I'm making an impact on those in need, plus spending time with my colleagues."

Nicole Johnson, district director of the Phoenix MDA chapter, and Kim Galat, administrative assistant and volunteer organizer, were equally excited to have UAT aid with numerous projects. "It's wonderful to have volunteers come in and help with projects," said Johnson. "It's been awesome having them here; they're fun and have a great attitude."

Helping Camelot Therapeutic Horsemanship

Students and staff rolled up their sleeves and pitched in at Camelot Therapeutic Horsemanship in Scottsdale. Camelot Therapeutic specializes in helping disabled children and adults to ride and work with horses specially trained to cooperate with the handicapped.

The UAT volunteers trimmed trees, weeded the facility arena, cleared dead brush and branches and widened a trail to make it more accessible to riders. "It's really, really great because horses aren't animals that you can get near when you've got a physical disability," said Jones.

Director of Community Relations Michelle Bartlett appreciated the efforts of the UAT volunteers. The program depends on volunteers to clean barns and work with riders to keep the program free for participants. "Every hand is needed to keep the gears moving," said Bartlett. "This was one hard-working group and we are so grateful to have their support!"

The efforts were appreciated by the volunteers as well, with student Courrey Gordon and Enrollment Coordinator Jeffrey Mathews looking forward to the next event. "I really enjoyed it, I had never interacted with so many animals in that way before," said Gordon. "I'm definitely volunteering again. I'd love to come back and see how the horses are doing."

"It was all worth it because this place means everything for some of the kids who come here. There were drawings and pictures everywhere, showing how much it truly helps these kids who have mental or physical disabilities," said Mathews. "I think more people should really put their time towards other people with needs greater than ours."

Aiding the Arizona Humane Society

Destination Geek concluded with a trip to the Arizona Humane Society in Phoenix. Students and staff balanced fun and work, playing with cats and rabbits, making dog treats and cleaning animal cages.

In operation for more than 50 years, the Arizona Humane Society assists injured, unwanted and abandoned animals in what is the second-largest homeless animal population in the U.S. Many of the volunteers were passionate about mingling with the animals, with several relishing the chance to volunteer at a shelter. "I really like playing with the cats and doing the dog treats and running through the dog kennels," said student Melissa Reese.

"I'm a really big dog lover, and I miss my dog at home - like, every day - so I need to be around animals," added student Elba Colon.

The opportunity had a few students wishing they could take home pets of their own. "If I had my own place and I wasn't living in the dorm, I probably would adopt a pet," noted Jerrad Zonna.

Added Linh Lam, "It's been pretty fun, getting to play with the little kitties. I'm tempted to take one home with me."

Others, like student Neil Goldstein and Digital Media Specialist Kari McBride, had previous shelter volunteer experience and were passionate about lending their services in the past and the future. "I've got a dog and three cats; I've actually gotten all of my animals from a shelter," Goldstein stated while videotaping the UAT volunteers.

"It was so amazing - not just helping them out, but it was something I love to do in the first place, so it didn't even feel like I was volunteering my time. It felt like I was doing something I loved," said McBride.

Sharon Kinsella, manager of volunteer services for the Humane Society, arranged the activities to ensure their fun, fit for the group size and tailored them to the needs of the society's staff. With experience organizing helpers (the facility had help from more than 1,100 volunteers in 2008), she enjoyed the UAT endeavors. "I feel it's a really important part of our outreach because we want to make sure that folks in the community have a chance to come in and interact with us so that they know that we're here, we've got beautiful animals to adopt and it's a great place to donate," said Kinsella. "They've been really friendly and nice."

It's the dream.

Did you know...

UAT students need an internship to graduate. Many find internships in their own field of study.

NAME: Leah Swigart

PROFESSION: Associate Game Designer
Sony Online Entertainment

ALUMNUS: UAT Class of 2008

MAJOR: Multimedia

HOME TOWN: Cottonwood, AZ

Leah Swigart can't stop giggling. What's so funny? The cause is more giddy excitement than humor – the effect of having her biggest dream come true before her eyes. She gets to do what she loves, have a great time doing it and get paid for it. What's better than getting work that doesn't feel like work? Maybe the feeling of all the effort it took to get there finally paying off.

A recent graduate of UAT's Multimedia program, Swigart landed a full-time gig with Sony Online Entertainment. Her role as an associate game designer will be to work on the online game *EverQuest II*. Swigart will be ramping up with Sony's in-house tools, game engine and scripting standards, jumping into new content for a future expansion of the game – including dungeons and events – as well as possible player-versus-player items.

Never underestimate the power of networking in your industry. UAT provides many opportunities for students and alumni to network and find career opportunities. Swigart took advantage of this by attending the UAT Career Expo, where she met with industry representatives and recruiters. In addition to showing some of her portfolio work at the networking event, Swigart participated in a design test to prove her skills. From there she caught the attention of Sony and pursued the opportunity by going through an extensive interview process. The process included an initial phone conference followed by an in-person meeting at Sony's San Diego office.

"It was pretty stressful. It was basically my first real formal interview, and I just prepped for it like I would for anything else," Swigart said.

The preparation paid off. Swigart proved herself and was offered the position, which she graciously accepted. Now that she's begun her career and established her position in the gaming industry, her primary focus while with Sony is to bring great content to players. With hard work and dedication, Swigart's long-term goal is to move up in the company, eventually securing a more senior position, where she'll have the opportunity to contribute to other projects.

Swigart expressed gratitude for the education she received working toward her degree at UAT, both the technical and creative skills as well as the practical career planning and preparation training for the future. The networking opportunities were also a valuable asset of her education, without which she would not be where she is today.

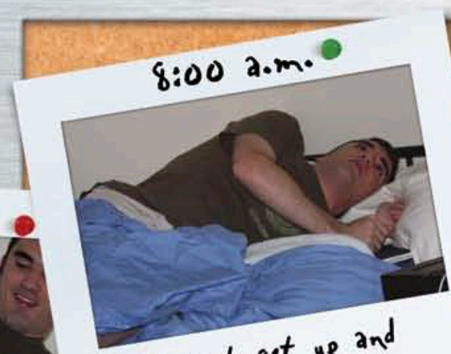
"It's the dream. It's what I came to school for, it's what I've always wanted to do. And just to be able to do that, I'm so grateful and thankful," Swigart said.

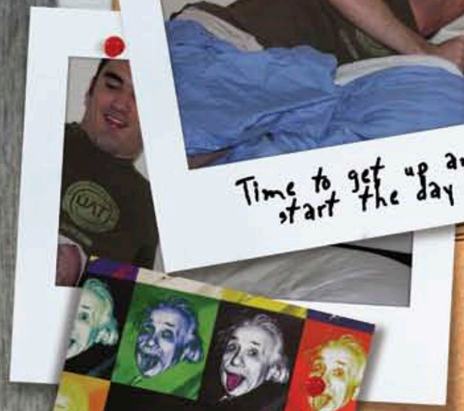
SNAP IT

LEARN MORE AT WWW.UAT.EDU/LEAHSWIGART

Follow current Founder's Hall student, Brian Vorhees, as he goes to class and enjoys life on the UAT campus.

A DAY of A DORM STUDENT In The LIFE


8:00 a.m.
Time to get up and start the day




Check t… before I go to class


9:30 a.m.
Quick snack for some much needed energy


…my dorm room a bit


10:40 a.m.
Check-out a few games from the library


11:15 a.m.
Meet some buddies before class

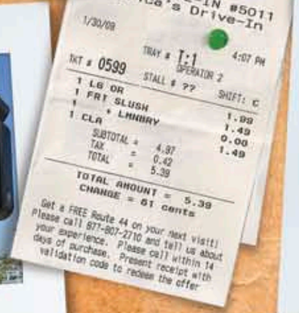

11:00 a.m.
…e a walk through the quad area

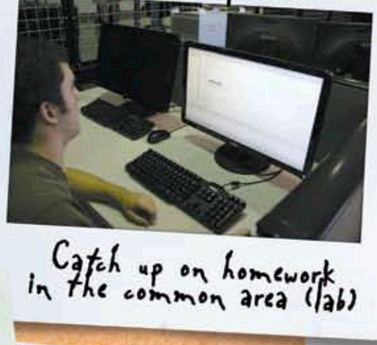

JOIN THE CLUB
WARHAMMER
CLUB


12:10 p…
Get to class a little late – oops


12:50 p.m.
Student presentation day in Game Programming class


1:30 p.m.
Find some buddies to walk to lunch with me



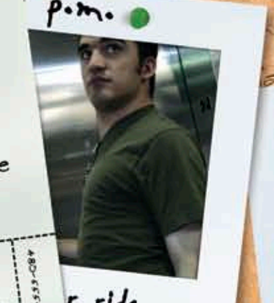

3:25 p.m.
Catch up on homework in the common area (lab)

4:45 p.m.
…gramming breakthrough on my homework

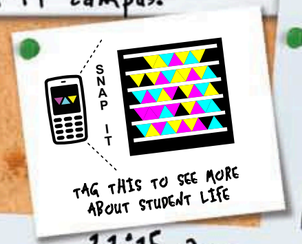

5:45 p.m.
Dinner time at the campus cafeteria


6:10 p.m.
…ool in the …teria


7:45 p.m.
Ray Kurzweil presenting at UAT – HOW COOL!


…p.m.
…r ride …oom


10:20 p.m.
Very tired. Time to climb into bed for the night



To learn more about what goes on during a day in the life of UAT students, log onto www.uat.edu/dayinthelife

DAVID WESSMAN

FACULTY PROFILE

David Wessman, a Professor of Game Design at UAT, is an 18-year game industry veteran, having worked for several studios designing and writing for numerous popular games such as *Indiana Jones and the Fate of Atlantis, Falcon 3.0, LeChuck's Revenge,The Star Wars X-Wing* series and *Blood Wake*, just to name a few. Wessman is perhaps best known for his book, *X-Wing: The Official Strategy Guide*, published in 1993 during his tenure at LucasArts. The book was extremely popular in its day – gamers everywhere used it to unlock the secrets of the particularly challenging game. Wessman designed the missions in the game, wrote the documentation for it and headed up the internal quality testing team. This integral level of involvement left him well qualified to write the strategy guide, which was incredibly well received.

When he went on to fill the same role in the next game of the series, *TIE Fighter*, he wrote a strategy guide for that game as well, but without as much success. The book didn't sell like the first, mainly because the second game in the series wasn't as challenging and therefore didn't require a strategy guide. *TIE Fighter* could be played in a mode that gave the main character immunity, allowing players to practice and learn without consequence and without the need for a book.

"People complained that *X-Wing* was too hard, to the point where they stopped playing it. So we created different levels of difficulty for *TIE Fighter*, including the ability to play in immunity mode, which pretty much eliminated the need for a strategy guide," Wessman said.

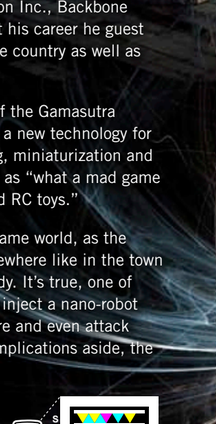
THE STAR WARS X-WING SERIES HAS SINCE GONE DOWN AS ONE OF THE WORLD'S MOST POPULAR COMPUTER GAMES EVER MADE.

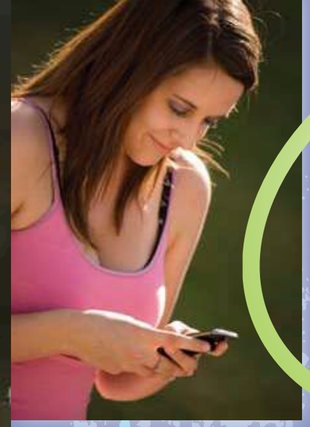
Wessman's career progressed to include high profile game design work for Stormfront Studios, Starbreeze Studios, Volition Inc., Backbone Entertainment and Destineer Studios. Throughout his career he guest lectured at several different universities across the country as well as consulted on game design curricula for schools.

Most recently, Wessman was one of the winners of the Gamasutra Games of 2020 contest for his MyBots concept – a new technology for gaming that combines robotics, virtual interfacing, miniaturization and wireless connectivity. Wessman explains it simply as "what a mad game designer would do with networked super-advanced RC toys."

The idea turns real-world environments into the game world, as the miniature robots or MyBots would be placed somewhere like in the town dump, your own back yard or even inside your body. It's true, one of Wessman's concepts called Super Immunity is to inject a nano-robot inside the player's own body where it could explore and even attack harmful cells like bacteria. Medical and ethical implications aside, the idea is unmistakably fascinating.

LEARN MORE
WWW.UAT.EDU/DAVIDWESSMAN





The Personified Page

Spiritual teachers in India will sometimes hang a chalkboard around their necks to communicate with their followers after taking a vow of silence. They teach important lessons using only a few words, just enough to convey powerful messages to those willing to listen carefully. They have trained their mind into supreme clarity, so that excesses might be trimmed from their speech, leaving only pure knowledge. These teachers are practicing the ultimate in efficiency—little effort expended but much work done.

Users of the social network Twitter practice the same kind of efficiency. They try to fit excerpts of their lives into posts 140 characters long. They have a certain list of "followers"—friends, coworkers, family, interested strangers—that read the updates in real time. The followers can then respond and have "conversations," so long as each message remains within the system's limit.

This kind of efficiency has been prevalent in recent technology. There is always a move towards faster, smaller, easier. As our lives become overscheduled, our technologies become more efficient to make up for the time squeeze. Some websites have reduced their status messages to a single smiley. How's Paul? Oh, he's feeling amused— but Michelle's feeling annoyed, oh no. Has this replaced the casual workplace conversation? Is Twitter the new "How are you?" And what happens when our communication becomes compacted, oversimplified and overworked?

A recent study suggested that a constant stream of information input can overload our capacity to empathize with other people, and that it takes time to reflect and interpret a certain issue. If one piece of information is always being pushed out of our mind by the next, can we think critically about a news article using our whole intellect? Even though we are seeing social groups in new ways and have unprecedented access to our friends' lives, we may be hurting ourselves by not allowing time to really absorb anything. Is the price of constant connectivity a dulled understanding of the world around us, and is that too high a price to pay?

Social networks may very well be the next step in this evolution of greater understanding of other people.

In his essay, "In Praise of Idleness," Bertrand Russell argues for less work and more time for reflection. He says that if we only had more time to relax and reflect, "there will be happiness and joy of life, instead of frayed nerves, weariness, and dyspepsia." Russell primarily wanted shorter work hours, but his ideas can apply to our busy lives as well. Not just being overworked with little time for play, but also filling our play with mindless activities like surfing the internet can sometimes be counterproductive. If we spend all our time "inputting" information, there will be no time left for output, or even processing.

I often find myself preening my online profile. I add or delete bands as my tastes change, un-tag myself in unflattering photos, and carefully craft my "about me" section into something witty, yet approachable. I see this as an evolution of the first impression. Friends of friends and sometimes strangers come across my profile and I only have a few seconds to grab their attention. My Facebook profile has become my social business card, complete with marketing department. In a sense, my personality online has become its own small business. And on a social networking site filled with self-centered college kids, the product is Me.

On a slow news day you'll often see a report on the dangers of sharing your private life online. "You can't take it back," they'll say. "Once it's online, it's there forever." For some people this is true—celebrities, high-profile bloggers, the occasional high schooler with some risqué YouTube footage. But for the average person I think it is quite the opposite. We have much greater control of our outward identities than ever before. With a little creativity we can easily shape ourselves online into something we are not—or at least into something a little better than what we are.

The rise of the first-person novel in the 1700s saw a subtle shift in human relationships toward greater empathy. For the first time a reader could be "inside" the head of another person, thinking their thoughts, absorbing their personality. Social networks may very well be the next step in this evolution of greater understanding of other people. We can now see exactly what our friends are doing throughout the day—how they interact in the world, who their friends are, etc. We can view directly how they behave in relationships (at least publicly). We can "stalk" their profile and learn about their lives, likes, and desires. With each Internet tool that personifies us online, we learn a little more about each other.

I think one of the dangers of an online identity is becoming too focused with your own image online.

In a sense, Twitterers have all become their followers' gurus. Little nuggets of wisdom arrive out of their daily lives and we catch a glimpse of human nature. Twitter posts are almost a secret—what you had for breakfast, how that interview went, something funny you read—worth sharing within your little world. In this sense, constant connection to a social network is a great thing: you're always being stimulated, staying in touch with your friends, it becomes a creative outlet or even a soapbox. It's empowering to have an audience, and the greatest speakers are democratically elected.

Growing up in the Internet age, I find these qualities valuable. Communication should be efficient and expand the ways in which we communicate. It can inspire us to share more in different ways. But I warn myself against the means becoming the message. If we're all on the stage, there will be no one left in the audience. I think one of the dangers of an online identity is becoming too focused with your own image online. Like in a business, you can't have a good product if you spend all your money on advertising. And no amount of advertising can save a bad product.

did you know...

You can follow UAT's happenings on Twitter? Connect with us at http://twitter.com/uathappenings

Geekily Ever After

It takes an open mind and a bit of reckless imagination to envision, but learning isn't the only thing that goes on in college. Seriously though, what if you meet that one person who fits you perfectly – like how your favorite game controller fits in your hand? Where are you more likely to find someone like that than at a college full of your peers, people just like you who share your interests and can match your creativity and intelligence? Skeptical? It happened. Right here at UAT.

She noticed his camera – a Nikon D2X. Little did she know, he preferred Canon. They met when they both ended up involved in the same student project, an online digital newspaper called Error 404. Ali Lasana wanted to be involved in photography for the publication, so the Editor made her the Managing Editor, allowing her to oversee all aspects of Art Direction for the project including photography. She was introduced to her photographer, Thomas Jacob Dziedzinski, or TJ as he is known, about a week later.

When they met for their first photo shoot, he couldn't help but be intrigued when Ali barreled up in her mean Dodge Ram 1500. She recognized him as the blond guy that worked in UAT's NT lab. She saw him when she walked by the window of the studio every day, hunched down in front of a computer screen wearing headphones. When he showed up to the photo shoot with his camera, she said "I've seen you before. Nice camera." He smiled and said, "Canon's better."

After the shoot, they went out to lunch where they discovered, over salad and soup, that they were as comfortable together as family. Conversation was easy and they discovered that they had a lot more than just UAT and a love of pictures in common. "We felt comfortable together right away-like family," TJ said.

TJ didn't have a car. Living just across the street from campus, he hadn't needed one. Any transportation needs were met with his bicycle – until he met Ali. When they started dating, Ali would throw TJ's bike in the back of her giant truck and off they would go on outdoor adventures.

Ali's brother preceded her to UAT. She remembers feeling envious when she was at Delaware Technical Community College struggling through a typical load of undergraduate classes, listening to the kinds of classes he was taking, like The Evolution of Gaming and Sociology and the Simpsons.

She first visited UAT when her brother toured the campus. What attracted her most was the autonomy each student seemed to have – an environment that supports independence and personal ambition.

"You do as well as you want to do here… That fit well with me, because I'm a pretty ambitious person," she said.

When she graduated from Del Tech, she also looked at the Art Institute of Phoenix and Collins, but her first choice was UAT, where she eventually majored in Digital Art and Design.

TJ had visited many colleges – some in New York and some in Boston – mostly considering where he wanted to live, being uncertain about what field of study he would enter. When he found UAT, he knew. Originally enrolling as a Game Design major, TJ realized after the first year that it wasn't his path. He switched, like Ali, to Digital Art and Animation.

Ali and TJ had a typical first date out at the movies. On the second date, though, she put her life in his hands when TJ introduced Ali to rock climbing. "It was terrifying, but I loved it. We started doing it all the time." They started in the gym but it wasn't long before they acquired their own equipment and started scaling mountain walls. When they came down from a full day of climbing and rappelling on Camelback Mountain to discover that Ali's foot was swollen twice its size, the outdoor adventures temporarily came to an end.

The two completed their degrees in Digital Art and Design while working on campus. TJ started out as an intern Graphic Designer and Photographer for the NT Lab at UAT until he was hired on as a full-time photographer during the redevelopment of the UAT website. Included in his portfolio are the time-lapse photos of the construction of our new dorm, Founder's Hall.

Discovering his love for photography came as a bit of a surprise to TJ. After his first two semesters at UAT as a Game Design major, he realized he was losing interest in the field. He even stopped playing games. At that point, he started taking more art classes and meeting more artistic people, keeping an eye out for what caught his interest. He then joined the newly created Photography Club at UAT and found quickly that he had a natural affinity for it. The group took trips every month, and TJ's passion for photography grew.

"I always knew I was more creative and more into the arts, but I didn't realize what exactly I liked until I got into the Photography Club… I became fascinated. I upgraded my equipment and went on more trips to take more pictures, it was great."

While working on her degree, Ali worked for UAT as a Student Ambassador in the Communications office. She learned everything about the campus and UAT by giving tours to prospective students and answering questions about student life.

Ali later scored an internship opportunity through UAT's Career Services department at OdysseyWare Inc. in Chandler, AZ, where she was later hired on as a full-time Media Designer and remains to this day, nearly two years later. She thought she would pose an interesting challenge because the majority of internships placed at UAT were in the gaming or digital animation fields. She was more than pleased when Career Services found her the internship at OdysseyWare, a company that creates online curriculum and interactive learning programs for grades 3 – 12.

TJ worked as UAT's lead photographer for a little more than a year before applying to Apple, where he was hired for a part-time retail sales position. He worked both jobs until he graduated and for a short while thereafter, until he was recruited for a promotion at Apple and became a full-time Creative. Today, he spends his time working one-on-one with people, teaching them everything from the basics of the computer all the way up to the professional Apple applications.

When Ali and TJ graduated and started getting established in their careers, they decided to look for a home together. When they found a home they liked, and their purchase offer was accepted, they were so excited that they had to call their parents. TJ took that opportunity to ask Ali's father for her hand in marriage.

One of their dreams for the future is to open up a photography studio of their own one day, combining Ali's artistic eye with TJ's commercial expertise. Meanwhile, they're happily living the dream.

Where They Met: UAT - Tempe, AZ
First Date: Movies
Wedding: October 2nd, 2010

[RISE TO THE SURFACE]

students build multi-touch surface interface computer.

ABOVE: James Grant, Michael Dresser and Sean Hillmeyer

BELOW:
Stephen Cady - Faculty Advisor
Sean Hillmeyer - Senior, Major: Robotics & Embedded Systems
James Grant - Senior, Major: Digital Art & Design
Michael Dresser - Senior, Major: Artificial Life Programming

LEARN MORE AT WWW.UAT.EDU/RISETOTHESURFACE

Last year's presidential election debuted it – on CNN news and even *Saturday Night Live* – the newish multi-touch surface technology turned mainstream by Microsoft. A small group of UAT students took notice and rose to the occasion, or surface, if you will, and decided to build their own multi-touch surface computer. It all started when Sean Hillmeyer and James Grant gave a presentation in a speech class last year, addressing the topic of multi-touch technology. To demonstrate, they even built a crude prototype with a cardboard box, a web cam, a sheet of paper and some glass. The webcam was placed at the bottom of the box, pointed up at the sheet of paper. Sean downloaded open source point tracking software and modified it to create a basic touch pad. It was the seed for the more sophisticated project they are now completing.

IT'S LIKE HAVING TEN OR MORE MOUSE CURSORS ON A SCREEN

Michael Dresser, a Senior in Software Engineering, joined the team to create demonstration software for the computer as well as help build the hardware and provide general support. Stephen Cady signed on as the faculty advisor for the project and they were underway.

"The multi-touch system is a more natural way to interface with a computer – like shuffling papers around on a desk or grabbing a pen, it provides tactile contact with our work," said Hillmeyer. The multi-touch technology is the natural expansion on basic touch-screen technology, which amounts to one finger interacting with a screen. In the beginning, multi-touch computers were operated vertically on a screen, where the user would reach up and move objects around. This prolonged position inevitably produced sore arms. The table format solved that "guerilla arm" problem, using a flat surface. The newest technology is based on platforms that are tables, kiosks or 45-degree angle screens. The table platform is geared toward bars and restaurants, people sitting around a table with cocktails.

The team speculated that multi-touch systems will quickly be accepted on a large scale and will replace the traditional ways of interacting with computers. It will be a natural, although difficult, transition toward a table-style screen with multiple inputs in terms of programming because software is no longer constrained to the up-down-left-right coordinates of a traditional monitor. Users can approach the table from any side and the interface can be repositioned to their perspective and respond to multiple inputs – fingers pinching, twisting and spreading to manipulate the objects on screen. In addition, the multiple points of interaction that multi-touch systems provide make it challenging to set up user interfaces. "It's like having ten or more mouse cursors on a screen, moving in an intricate dance, just to rotate, resize and translate a single object," said Hillmeyer. "We expect that it will take some time for students and professors alike to get the hang of programming for multi-touch displays. It's an entirely new way of interacting with technology that will likely replace the 46-year-old mouse."

The team created a multi-touch computer with an acrylic surface, a camera and a projector – basically, home theater equipment. They went through planning and writing up schematics, programming test software from open source scripts then fabricating parts and piecing together the hardware. The robust system is both a hardware and software project, but the team is focused primarily on the hardware aspects to develop a platform on which future students can develop and test experimental software creations for the multi-touch platform. Without an actual multi-touch interface, it's difficult to develop software that reacts to more than one point of input, so this project fills that need for the surface hardware at UAT. The team is working with demo applications to help them write a development manual for the table itself. Currently, the only aspect of the application that reacts to multi-touch input is a small button palette that can be rotated with a two finger twist motion, allowing users along any side of the table to reposition the palette so that button text is upright, relative to view.

IT'S AN ENTIRELY NEW WAY OF INTERACTING WITH TECHNOLOGY

While the team sets up the prototype in the theater, their fingertips are projected as white dots on the screen. This is the result of infrared light being reflected back into the camera. Along the top edge of the acrylic surface, there are 20 lit-up infrared LEDs, pulling about 140 milliamps of power – not very powerful, but just enough that the camera can see the infrared light. The lights in the room have to be turned down because incandescent light bulbs emit a lot of infrared light, which interferes with the way the screen works.

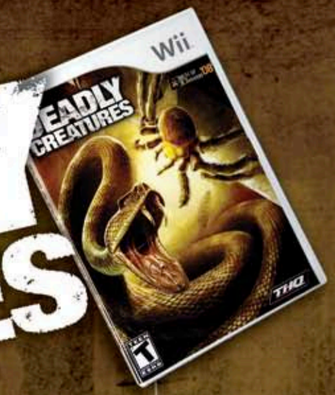
They currently have a carpenter commissioned to build a cabinet for the hardware which will hold the acrylic like a tabletop surface. The unit will stand about 36 inches high, standard for a table. It will be accessible on all four sides to facilitate interaction by a group huddled around it. The experience will be a black screen with multiple control panels that you can move around the screen and position in any way that you want. Plans for the surface include placing it as a stand-alone unit with a virtual keyboard available. Web cams placed around the school will stream to a 3D cube on the surface which can be rotated, flipped and moved around, as can the sets of controls.

did you know...

The industrial designer who came up with the flip phone design took it directly from Star Trek's handheld "Communicator."

UAT wants to encourage game students to design games for the platform, which has all kinds of gesture recognition capability and different inputs from traditional game platforms. It's ideal for real-time strategy games, where the player hovers over the spacecraft or the battlefield and manages the action of the soldiers. With this kind of interface, the player can use her hand to move around the battlefield or zoom in and out from the battlefield. The critical issue of speed in these types of games is taken care of, as there are no buttons and cursors to worry about – just move your hand and you're there.

DEADLY CREATURES



UAT Alumni Mastermind a Major Title for Wii

Game developer Rainbow Studios is known mainly for motorsport titles like the MX vs. ATV games. That's why it comes as a surprise that *Deadly Creatures*, one of the more anticipated Wii exclusives of the coming year, is from the Rainbow team.

Dustin Young, a UAT graduate, was Rainbow's lead artist on the project. After graduating in 2004, he went to work for Rainbow and has been there ever since. Young isn't the only UAT graduate at Rainbow. In fact, he is joined by several other alumni on the *Deadly Creatures* team.

At Rainbow Studios, creating a game from conception to completion is a team effort. It all starts with a brainstorm session. Each member of the team is encouraged to submit his or her ideas during this open forum. Ideas can be documented in writing or simply discussed. Whether the idea is a story line, game play elements, objectives or something else, all is welcome. There might be as many as 20 or more good ideas at the end of the brainstorm that the team then has to narrow down to the best five. The final five are then built upon and fleshed out into full concepts, which get pitched to Rainbow's publishing arm, THQ. Often, these game concepts won't be much more than writing on paper at the time of the pitch. Occasionally, the team will request art from the Concept Department in order to show a visual representation to THQ.

The Concept Department at Rainbow is staffed with painters and sketch artists – talent armed with brushes and pencils to be the first to bring to life the vision of a writer or a game designer. They can be called upon to create the exact right angle for something, to make a new texture, build storyboards or just create a panoramic painting of a scene. The concept artists also make use of the Wacom, a digital tablet that allows them to draw and paint directly into Illustrator or Photoshop. During the pitch phase, though, the Concept Department is rarely used.

"Ideas can get shot down quickly, so we don't want to spend a lot of time or get people too excited about an idea we're pitching," Young said, who wore many hats on the *Deadly Creatures* project, from interface design to back-end scripting to functionality planning and programming to animation. "I have to be fluent in a lot of different areas," he said. Young credits his versatility on the job to his varied experience at UAT, having taken 3D art and animation classes, scripting classes, art and design, and from working on student projects where he learned a bit of everything about the process of making a game. When Young learned about Rainbow Studios while he was at UAT, he immediately started applying for any available positions – from graphic design to IT to programming. Ultimately, he wanted to be a game designer, but he was willing to start anywhere. When he got a job as an artist, he was still in school and had to balance the two – a price he was happy to pay.

Raymond Visner, a game designer for *Deadly Creatures*, was one of Dustin Young's prior classmates who also graduated from UAT in 2004. But, unlike Young, he didn't join Rainbow until 2007.

UAT Crew Members:
Dustin Young
Raymond Visner
Holly Sheppard
Trapper McFerron

"There was a good combination of theory and practice that I gained from UAT, which really helped me to prepare for a job like this," Visner said.

Deadly Creatures, the story, is about a scorpion and a tarantula fighting against other insects and reptiles native to the desert. It's an adventure broken into chapters rather than the levels common to most video games. Visner was responsible for creating Chapter 7, save some back-end programming. All of the creature fight scenes in Chapter 7 are the handi-work of Visner – from designing the creatures to placing them in the world, having their reveals come out, engineering the engagements, all the way through to the end of every possible sequence.

The game was actually conceived in a dream that the lead designer on the team had about being a snake controlled by a Wii-mote and veering up to strike a mouse. When the team got together to brainstorm the game world, they realized that being a snake was rather limited. "You've got the waggle and you've got the strike. That's basically it. Snakes are intimidating creatures, too, so we figured that he would be a better boss to fight versus an actual, playable character," Visner said. The team took cues from their own backyard, so to speak, for the environment, creating a desert game world. But, they also wanted to offer a variety of environments and add in man-made objects, so Visner created a junk yard in Chapter 7 featuring a tipped over truck, a doll house, a garden gnome stuck in the weeds and several other unique objects to climb through. "The objects give you a sense of scale, a sense of size. They let you know that although you're in the wild, there's always some mark of a human," Visner said.

The lead programmer on the team, Trapper McFerron, graduated from UAT in 2001 and joined Rainbow Studios in 2002. "I loved being at UAT – I was there on campus for at least 14 hours every day on the days I didn't have to work," McFerron said. "I took what I learned in class and used it to make games. A lot of the teachers I had at UAT would come in before class or after class and sit with me, sometimes for hours, helping me with a game project I was struggling with." McFerron's first extracurricular project was to rewrite the classic, Pac Man, using Java. One of the faculty members who helped McFerron with his Pac Man project was also a programmer working for a local internet company, which was hiring. McFerron applied and was hired, enabling him to get real industry experience while still in school.

Holly Sheppard was an environment artist on the *Deadly Creatures* team who graduated from UAT in 2005. When she first came to UAT, she had a traditional art background and very little computer and technical knowledge. What drew her to UAT was a desire to make digital films. When she worked on a student project to modify the Core game engine, however, she was completely converted over to the world of game design. "When I graduated, I didn't apply anywhere except game studios, so UAT prepared me for everything. I started from zero," Sheppard said. She took some different classes and discovered her passion in modeling. She loved making art for game environments. Her role in *Deadly Creatures* was to make everything in the game that wasn't the characters themselves, from the tangled brambles to the ground to the lighting and texturing of everything.

Sheppard was feeling her way through her first experience designing lighting for a game environment while working on *Deadly Creatures*. She found support and inspiration from her fellow team members, who gave her pointers and direction on how to light everything properly to create the right mood in the game world. "It was so much fun, I loved it," Sheppard said.

Deadly Creatures is in stores now and receiving positive reviews from the press. The UAT alumni involved in creating the popular game are thrilled to be working for Rainbow Studios and grateful to UAT for preparing them well. They're looking forward to shipping more new titles in the coming year.

Learn More

www.uat.edu/deadlycreatures

Give Yourself a Hand

We found a specimen of robotics that's so sick and cool it will make you want to amputate your own hand just to get one for yourself. Well, maybe that's going a bit too far, but not by much. The i-LIMB Hand by Touch Bionics is an advanced bionic prosthetic device that moves just like a real human hand. It looks an awful lot like a real hand too, but with that Terminator-esque robotic edge that makes geeks like us drool.

Don't be fooled by the name into thinking it has anything to do with Apple, although would we be surprised? If it were from the Mac family, though, it would shoot video and browse the web all while simultaneously making you pancakes, or gripping the drawstrings while you carry out the garbage. Alas, Touch Bionics is focused solely on fundamental, life-like articulation. It took them years to get it up to the level of authentic human anatomy.

The i-LIMB Hand is controlled by two small electrodes that rest against muscles and pick up signals, which they interpret to control the movement of the device. The hand works completely off of the "phantom limb" phenomenon – where an amputee retains the sensation of the missing appendage long after it's gone. By way of this incident, signals are passed from the brain via the nerves and muscles of the arm into the i-LIMB Hand's electrode plates. These signals, conscious or unconscious, control the hand just as though it were your own.

If you get an extra firm grip while shaking the hand of a gloved stranger, you might ask for a closer look at that nice looking hand garment — there could be a bionic iLIMB underneath. Although, even if you get the glove off, you might not even know if it's an i-LIMB, because in addition to the muscular impulse-driven movements making the prosthetic so lifelike, it comes with optional skin. Livingskin is a subsidiary of Touch Bionics that makes custom "covers" for prosthetics, including all types of extremities such as full arms and legs or just parts of said limbs – like elbows, fingers, knees and toes.

The goal accomplished by this flagship technology from Touch Bionics is simple, yet profound: No longer will you know by looking whether a person has prosthetics or not.

" The i-LIMB is an amazing step forward in linking the human body to advanced robotics. Technology is reaching a stage of development where our interaction and utilization of advanced systems is limited by the arcane interfaces we developed in the early 90's. The i-LIMB's use of existing nerve connections to control a robotic limb opens up a multitude of possibilities for controlling other robotic gripping devices. Perhaps we'll see the day when losing a limb means getting a first class ticket to space as the operator of the European Robotic Arm on the ISS. "

-Sean Hillmeyer, Senior, Robotics & Embedded Systems

For more information on UAT's Robotics and Embedded Systems program, tag this or visit us at www.uat.edu/robotics

Did you know...

Did you know that Stevie Wonder bought the first production unit of the Kurzweil Reading Machine for the blind in 1976? Ray Kurzweil and Stevie Wonder became friends and business associates because of this meeting.

futurist Ray Kurzweil at UAT

Ray Kurzweil has been called the "ultimate thinking machine" and a "restless genius" by the Wall Street Journal and was ranked eighth on Forbes Magazine's list of U.S. entrepreneurs. Among his many accomplishments are the development of the first print-to-speech software and the first text-to-speech synthesizer, as well as the first optical character recognition (OCR) software for converting written word into data. Besides his many inventions, Kurzweil has become well-known in recent years for his vision of a highly technological future.

Kurzweil was also inducted into the National Inventor's Hall of Fame in 2002. His best-selling books include *The Age of Spiritual Machines* and *The Singularity is Near: When Humans Transcend Biology*, in which he describes how advancing technologies continue to distort the line between human and machine intelligence. He has also received 15 honorary Doctorates and honors from three U.S. Presidents.

During a luncheon and ceremony on campus, Kurzweil was inducted into the university's Leonardo da Vinci Society for the Study of Thinking on Friday, May 1.

Earlier in the week he had presented a University lecture, delivered UAT's Commencement address and signed copies of his books for students, staff and faculty as well as the public.

Dominic Pistillo, founder of the University of Advancing Technology, believes that Kurzweil's impact on technology has had a profound effect on the learning environment: "At UAT we strive to not only provide an enriching education environment, but to continue to explore innovations and manners of thinking which will impact mankind's future. With this in mind, we are honored to present such an eminent inventor and futurist as Ray Kurzweil with the Da Vinci Medallion."

Asked for his impression of UAT, Kurzweil said, "Well, I had heard of UAT and its uniqueness previous to this visit. When I arrived, I asked each student I met what they were studying and they are all doing really interesting things. It's refreshing to be in a place where people are majoring in robotics, game design, and fields like that, which are uncommon in colleges even today. It also reflects very much the topics I'm interested in."

Kurzweil also passed along this piece of advice for students who want to create the future of technology: "Success as an innovator is a matter of timing, and most inventors fail because of bad timing. That's what got me interested in technology trends and forecasting. I can project technology development very accurately out 10, even 20, years, and I apply this to my own inventing projects."

"People think linearly but the actual progression is exponential – a huge difference. This linear thinking is actually hard-wired into our brains. That's why the future is so different than the vast majority of people expect."

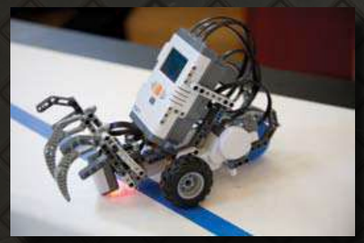
For more of this story, tag this, or go to www.uat.edu/geek411

Let the teen games begin

UAT hosted the fourth annual Avnet Tech Games in April, with more than 200 Arizona-based college students on 57 teams engaged in technology use in real-world scenarios for scholarships and prizes. The event is an annual multidisciplinary technology competition open to all colleges, institutes and universities in Arizona, emphasizing technology knowledge, teamwork and decision-making to navigate nine different events. The Games offer students the opportunity to apply what they are learning in school to real-world scenarios. Teams of students competed to win prizes and scholarships.

Each student won a $1,000 scholarship

Student teams from UAT won two of the events, Patch Panel Madness (teams built a data network with server racks, network chart, cables, patch panels and switches) and the Project Greenlight LED Challenge (groups assembled solar-powered camping lanterns with LED lights, solar-cell batteries, diodes and other items). Alijohn Ghassemlouei, Bill Nega and Zach Priddy triumphed in Patch Panel Madness, while Stephen Harper, Sean Hillmeyer and Lilibeth Rodriguez were victorious in the Project Greenlight challenge. Both groups were ably assisted by Associate Professor Ryan Clarke as faculty coach.



Each student won a $1,000 scholarship and each winning team received a $300 prize, which will be put to good use. Ghassemlouei, group member from last year's Patch Panel Madness winning team, did not expect to be drafted for this year, but was persuaded by Professor Clarke to join at the last minute.

"Literally, Professor Clarke came rushing down the stairs. Bill Nega and I were talking and Professor Clarke said we were on a team and he was looking for a third. He looked behind us and grabbed Zach Priddy and we were good to go," said Ghassemlouei.

The Project Greenlight groups had more preparation time, with approximately two weeks to amass parts and test their lantern. Hillmeyer noted that the design and construction process "took a good amount of time" for all the components to fit in the lamp shell. Added Harper: "It all worked out great in the end. It looks very clean, it's a nice design, but man, putting it all together was definitely a headache."

Other competitions included the Accenture Tech Challenge, in which teams developed and presented proposals to resolve humanitarian issues with modern and future technologies, and AMD's Build and Tune the Fastest Computer, in which groups of three students put together PCs from donated parts, then tuned and overclocked Avnet-donated computers – both within time limits. Also included were the Digital Design Challenge, with teams tasked to design and build a machine to accomplish precise tasks; Multimedia Fast Break, a chance for digital video students to design 30-second promotional commercials for the Phoenix Suns NBA team; Networking Within the Enterprise, with groups assigned to secure an imaginary computer network and dependent equipment; Robot Race Obstacle Course, with LEGO-based robots assembled and programmed to navigate an obstacle course and handle duties; and the VMware Virtualization Challenge, where teams created technology business plans to account for virtualization and tech developments.

Also included were the Digital Design Challenge

While the challenges took place, a related trade show featured products from sponsors Belkin, College Times and Sun Microsystems. The Networking Hour Happening offered a chance for students to meet with industry executives, sponsors and Avnet judges – those who interacted with three or more people were entered into a raffle for iPod Shuffle MP3 players.

UAT staff and faculty members also volunteered at the Games. Student Affairs Coordinator Sandy Calhoun, a greeter for contestants and visitors, was eager to assist after being fascinated by the positive reaction to last year's event (also hosted by UAT). "From here, I got to see a lot of people who don't normally come to our campus and to watch students participate who were really excited and hoping to win a scholarship," she said.

The 2010 Avnet Tech Games are scheduled for April 10, 2010.

(For more information about the 2009 Avnet Tech Games, check out http://www.avnettechgames.com/.)

world's fastest computer

When you hear the word petaflop, you might think of a complicated skateboard move that involves a flip or two in mid-air, or maybe the experience of getting thrust underwater and whirled around by the force of a mammoth wave, something like that. Or, even if you just know what it really means – the ability to calculate 1,000-trillion operations per second – that's a little more difficult to comprehend. It's what the Roadrunner, by IBM, the fastest computer in the world, can do.

To give you an idea, the processing power of the average human brain is estimated at about 100 million operations per second. That means it would take 10 million average people all thinking together to equal the power of this bad boy. However, not even the world's fastest computer can get 10 million people to think together, so there goes that comparison.

The coolest thing about the Roadrunner is that its processors are derivatives of the chips that muscle the most popular videogame consoles, the origin for all real power. So, when you were playing PS2 or Xbox for the first time, little did you know, you had your hands on the engine that would one day contribute to the driving force behind the world's fastest computer, which might one day calculate how to stop time, allowing you to procrastinate indefinitely.

In all seriousness, though, this machine can work some magic. The Roadrunner lives at the Los Alamos National Laboratory, where scientists of all kinds can access its power for researching deep areas such as genetics, global climate, biotechnology and quantum physics – all before breakfast. The amount of research this machine can do to assist the world leaders in scientific thought and engineering is unprecedented and yet to be discovered.

The world-record-breaking power of the Roadrunner comes from multiple kinds of processors working together in a hybrid system. Its intensive calculations are driven by the 12,240 IBM PowerXCell 8i Cell Broadband Engine™ processors – a mouthful to say aloud. These are the processors borne of the gamer world. The rest is made up of 6,562 AMD Opteron Dual-Core processors, which perform basic functions in the background.

IBM is certainly on top of the speed game, but they could use some polishing in the art of naming. I mean, Roadrunner? Really? Someone from the naming factory at Apple should give them a brainstorm call and come up with something a tad more clever. Maybe pose the challenge to the creative masses and hold a contest – whoever comes up with the best name for the world's fastest computer wins a free t-shirt, or something along those lines. Meanwhile, IBM should keep an eye out for that Wile E. Coyote.

OH HELLO NICE TO MEET YOU

MEET NEW FRESHMEN

READ MORE ABOUT UAT FRESHMAN AT www.uat.edu/meetnewfreshmen

SNAP IT

Elissa Clare

Major: Double Majoring in Digital Animation and Digital Video
Home Town: Flowermound, TX

I found UAT in the *Game Informer Magazine*. The ad caught my attention so I looked it up and it looked really cool. My first year's been a lot of fun. I started out with Digital Animation and Game Art, but then I realized I wanted to go into the movie and TV show direction rather than the game direction. So I switched Game Art to Digital Video. UAT is great because I get to pick the classes I want to take, like Japanese. It's been a challenge, but I'm really excited to be learning it. I plan on taking all the Japanese classes here.

The year-round learning makes it different than other schools and it's good because it keeps you immersed and connected. Everyone can relate to each other here, especially around video games. The atmosphere is so friendly, everyone can talk to everyone.

Bien Pham

Major: Game Art and Animation
Home Town: Sparta, NJ

When I was in high school, I wanted to get into the gaming industry like Tetsuya Nomura, who works for Square Enix. I was browsing through some game magazines one day and saw UAT. I did some research on it and decided it was a good place to check out.

My first year's been really remarkable and life changing. The social atmosphere here is really great. I checked DigiPen, DeVry and Full Sail but none of them had what UAT has – that unique family feel, like the profs really know you and care and are accessible. Plus, there's autonomy to do as well as you want to do, so ambition is rewarded.

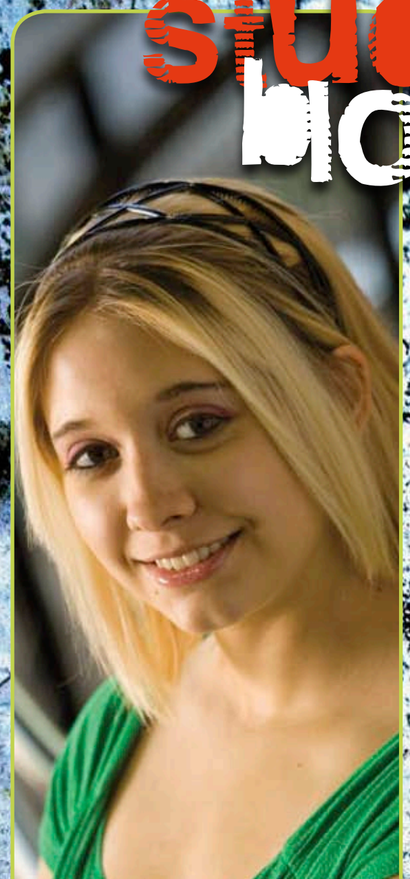
Seth Wolfe

Major: Game Design
Home Town: Ocean Springs, MS

I'm excited to be diving right into art and design classes my first year at UAT. I love my illustration and Photoshop classes so far, which are both 101-level classes. UAT immerses you in technology, and the education here is focused on what our goals and interests are. Everything we do here takes us in the direction of our goals.

When I was in high school, I was looking for an international game design school. I did an online search and found UAT, which stood out right away. There's a lot of innovation here, a lot of exciting game projects to get involved with. After I gradute, I'd like to work for Ubisoft. That would be my dream job.

student blogs



Sara Root

First Week of Summer 2009 5/15/2009 12:40:00 PM
So the first week of the semester just ended and I think it's starting out OK. I'm doing all of my homework before it's due and have things organized for the upcoming weeks. Right now I'm trying to finish up some of my assignments and plan out my trip for the E3 convention that is coming up; I can't remember if I mentioned it but I'm going to E3 with a bunch of students for free with a Student Pass. I'm going to be carpooling with my friends and then staying with my sister so I don't really have to pay for anything except my share of the gas plus food – AND I get hang out with my sister, which is awesome.

Visit Sara's blog at
www.uat.edu/meetsara

Jacob Sorenson

This week has been going pretty well. Homework hasn't been heavy and work has been going well too. A lot of people, including my boss, are currently at the Game Developer's Conference in San Francisco. A bunch of people should be trying to find internships or jobs and I hope they do. I've been working on getting better at *Call of Duty World at War* and have been doing pretty good at it. I got my first dog call last night in a free-for-all online. This is actually an achievement because I went on a 10-12 kill streak! To give you an idea of how difficult this is, most of the servers are hardcore, which means that you don't have the Heads up Display to use – that's no cross-hairs. You don't know how much ammo you have, you don't know which buttons do the inventory unless you have it memorized, no mini-map without recon, one shot kills, and dogs one shot you so if they touch you that's KO right there. Oh, and there were 40+ people in this FFA game. Well, this is all I have now. Until next week.

Visit Jacob's blog at
www.uat.edu/meetjacob

Kimberly Mann

Hey there, fellow students, my name is Kim Mann (haha, I know) and this is my first journal entry. Please please, come in and relax. We'll have some snacks coming in later, maybe… Anyway, this is my 3rd semester at UAT (first year almost over!) and I'm officially a sophomore now. Ah, it feels the same as high school, where you think all the new incoming freshmen are going to be little shrimpy-shrimps, but then you realize that you're still a shrimp on campus anyway. This rings especially true for me, as I'm only about 5 and a half feet tall, which though being normal height for a girl is nowhere normal for the guys. Doesn't bug me though, I love hanging out with guys! They don't want to talk about girly stuff and they actually want to play a round of Brawl with you. I've been thinking about attending The Academy this semester. Since I'm a Game Art and Animation major I know I need to get a lot of practice with Max, Maya, and this new Zbrush program. I also need to work on my 2D art skills, as I want to be a texture artist. Oh, right! The Academy is a group of students who get together outside of class to work on art and programming stuff, basically for practice. My roommate has been going since last semester, so I think I'll give it a try now.

Visit Kimberly's blog at
www.uat.edu/meetkimberly

did you know...

UAT is on Facebook? Look us up and add us to your network to get an insider's perspective on our culture and community.

The Art of Programming

DOTS AT PLAY

In the futuristic sci-fi movie *Minority Report*, protagonist John Anderton (Tom Cruise) enters a crowded mall atrium. Dozens of advertisements on LED screens scan his movement, identifying him and barking their products at him while he walks. These technologies are similar to what UAT student Michael Dresser utilizes in Dots at Play, a visual project that analyzes and displays human movement.

Art that interacts with and responds to your presence in space – that's the purpose of the algorithmic art project, Dots at Play. The program works with bodies against a fairly blank canvas like a wall or a movie screen. When the camera detects the density of a body blocking some of the canvas, the dots are programmed to gravitate towards its edge, just two points out from it towards the void. Then, the dots are hooked – they follow your movement by staying on that edge of light and dark. This way, you can go grab them with your hand and move them around with your body on the screen.

Dresser uses tracking software, a computer and webcam to cast a sizable dot and colored rings on a surface. The processing program is an open source software displaying mathematical computations using Max and Jitter for graphical programming and video and matrix data processing. This combination, feeding into a projector, creates the visuals on the person, as well as the gray background behind the images.

Dresser comes from an Artificial Life background, a field that includes many abstract concepts and theories not easily represented with numbers. Dresser realized that he was able to grasp these ideas easily through creating visual expressions of them. He gave as an example a representation of Darwin's Theory of Evolution where he created tiny boxes to represent all of the living organisms in space. When these "animals" move in the virtual world, you can see the movement on the screen.

Dresser used the data to have the computer images react to movement and sound volume.

Representations of interactions, deaths, extinctions and new mutations of life all get represented on screen visually. Not content with simply knowing the answer or the outcome, Dresser created programs to visually express this and other concepts so that he could see and understand them from beginning to end. These types of projects were what got Dresser more involved in the artistic community at UAT. Student project teams began recruiting him as their programmer, where he had the opportunity to help the artists express what they envisioned.

Future plans include using two computers, one for tracking and another for displaying the images

Dots at Play started as part of an audio analysis program for a class at UAT. With encouragement from Associate Professor Stephen Cady, Dresser used the data to have the computer images react to movement and sound volume. While the display appeared simplistic, the computing power needed was deceptively complex – calculating the tracking point (the person) and the noises. "This actually took a long time to come up with because it's almost so simplistic, it's difficult to program for because you have too much chaos going on – it isn't obvious to anticipate what's going on. So we tried to boil it down to the simplest concepts we could maintain interest in," said Dresser.

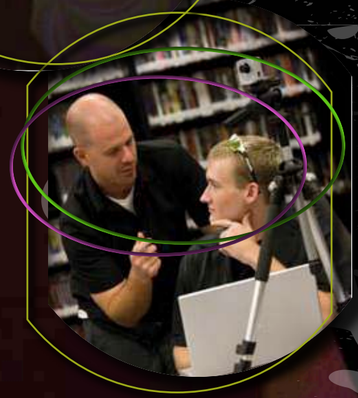
Future plans include using two computers, one for tracking and another for displaying the images – converting the project to a "processing-only application." Dresser hopes to show the work in lively spaces, taking advantage of its interactive and aesthetic properties.

"I'm looking to get this up in as many places as possible," he said. "You need people to come up and play with it and interact with it to really get the aesthetic response and the interaction response from it."

did you know...

Phoenix is one of the largest technology hotspots in the US?

LEARN MORE AT WWW.UAT.EDU/DOTSATPLAY



Stephen Cady - Faculty Advisor
Michael Dresser - Senior, Major: Artificial Life Programming

SNAP IT

WHAT'S HOT

HOT

GAME DESIGN AND PRODUCTION

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

Peripheral explosion – like it or not, the add-on fever that began with *Guitar Hero* and *Rock Band* is continuing in the form of motion cameras, DJ turntables, racing wheels made by Porsche, "wands" for motion control, Motion Plus for the Wiimote and many other plastic implements to clutter up the living room.

Mobile gaming – we already know that the iPhone is on the prowl as a game platform with the potential for a market in the tens of millions. Now, we're seeing traditionally weak gaming platforms such as smartphones and netbooks gain new graphics muscle with powerful AMD/ATI, NVidia and Intel chips featuring a lot more power per pixel, expanding the audience for PC games.

NOT

DRM – the backlash against intrusive digital rights management that began with *Spore*'s limited number of installs has continued with publishers now in full retreat, offering DRM-removal patches or bragging that their releases are now DRM-free.

MMOs – the glut of MMOs continues. So does the pattern of a big initial launch followed by a trail-off to minimal numbers . Everyone pales in the shadow of MMO juggernaut *World of Warcraft*, and the excess of freemium and micropay MMOs from Asia is just adding more bodies to the pile as they split increasingly shrinking audiences.

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

HOT

ROBOTICS AND EMBEDDED SYSTEMS

JUSTIN SELGRAD
Associate Professor, Game Studies
BS and BA, University of Wisconsin
MS, Washington University in St. Louis

Festo has a project called the Bionic Learning Network. With this and some of their other technologies they have been studying and reproducing natural movements of animals and other things from nature.

MOGS – Mobile robots outside guidance system.

Boston Dynamics Big Dog project for the US Military. It recently came to public attention through the YouTube footage from the company, leading to a kind of viral pop-culture interest.

Artificial Intelligence (AI) owns everyone at the movies this summer: *Terminator, Transformers, 9,* etc.

NOT

Lack of AI innovation in upcoming games this year (at least there was nothing indicated at E3).

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 from Remington College, BS, Remington College, MS, Capella University

Virtualization and Cloud Security – Virtualization is everywhere. Virtualization continues to be attractive because it reduces hardware, energy and overall operating costs. With the advent of cloud and green computing, securing these environments has come to the forefront. Virtualization extends from data center servers to the desktop. While virtualization security is starting to be addressed, cloud computing security concerns have yet to be solved. Additionally, electronic data discovery collection now involves virtualized environments, with cloud environments not far behind. This year might be a good one to learn how virtualization and cloud computing security concerns are affecting everyday business.

NOT

Data Breaches, Botnets and Conficker – In the past few months, two large credit card processing centers have had millions of accounts compromised. We hear more and more stories of massive botnets claiming government and corporate networks worldwide. Although Conficker has infected millions of PCs since it first emerged late last year, the latest round seemed to fizzle.

HOT

HUMAN-COMPUTER INTERACTION

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

Social Fabrics – The convergences between personal expression on the one hand and the nature of networked society on the other. They're art pieces worn on the body; existing in the multidimensional space that integrate multiple systems of technology and discourse.

WTA's (Wearable Technology Art) concept is based on the explosion of mobile-media technologies and on the corresponding rise in social networks and virtual realities, as physical reality increasingly merges into a simulated one (such as Microsoft Surface).

WTA opposes this direction by bringing forward connections with the tangible, organic aspects of the body as one dynamic interface.

"Stir it On" is an interactive skirt that reacts to any close encounter. Design patterns in the skirt emit subtle lights when they are stirred by passers-by.

Allosphere – The collaboration of artists, scientists and engineers at the Center for Research in Electronic Art Technology (CREATE) at UC Santa Barbara led to the creation of "Allosphere," a 3D immersive space for viewing, hearing and interacting with scientific data in time and space. Imagine yourself flying into the brain and seeing its tissues as a magical landscape. Imagine physicists travelling with atoms, watching them spin and bond with others. The potential for scientific research in the fields of biology, medical science, physics and nanotechnology is huge, as researchers have been exploring new ways of viewing, mapping and interpreting data.

NOT

Humans creating robotic armies to fight against humans in wars. Or worse, both sides using robotic armies to wage wars. If this happens, how do we interpret genocide or war crimes?

WHAT'S NOT

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.

Apply online today by tagging this or visit http://www.uat.edu/apply
or request more information at http://www.uat.edu/requestinfo

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.

2010 Dates & Deadlines

Spring 2010 Semester
Semester: January 11 – April 30, 2010
Spring Orientation: January 7
Midterm Break: March 15-19

Scholarship deadlines for first-time entering students for Spring 2010
> Scholarship application deadline: September 8, 2009
> Enrollment deadline: Within 30 days of notification of an award

Summer 2010 Semester
Semester: May 11 – August 20, 2010
Summer Orientation: May 6

Scholarship deadlines for first-time entering students for Summer 2010
> Scholarship application deadline: January 11, 2010
> Enrollment deadline: Within 30 days of notification of an award

Did you know...
UAT now offers 40 scholarships in 4 different categories? Check it out at www.uat.edu/scholarships

HELLO HOW ARE YOU? GOOD WHAT DO YOU TEACH?

MEET THE FACULTY

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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.

Vesna Dragojlov

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

Vesna's been teaching practically all her life, or at least for the past 20 or so years. She spent 10 years teaching English and Linguistics in Serbia before moving to the states. For the past nine years, she's been teaching new media and design courses in a University setting.

"UAT is very teaching-oriented, which is important because I'm very passionate about teaching and I'm able to bring new ideas and design new courses."

Vesna designed a new class for UAT called Algorithmic Art, which is really growing in popularity now. She also designed Principles of Interactivity. She loves that UAT gives her the freedom and the opportunity to be creative. She enjoys being challenged and growing as a result. "The students at UAT are very goal-oriented, open-minded and respectful. UAT is the perfect setting for me because it integrates of all of my skills – education and technology, art and new media."

Other than plans for publishing a chronicle of favorite student excuses for missing class, Vesna plans on staying on the growing edge of technology with UAT.

Randy James

Associate Professor: Flash Game Design
BA and MA from San Francisco State University

Originally from Juneau, Alaska, Randy is most recently – for the past 20 years – from the Bay Area where he had his own consulting company while teaching digital production at community colleges by night. About four years ago, he moved to Arizona to teach at both Arizona State University and Collins College. He specializes in teaching production skills, especially as this applies to the development of educational flash games or what he calls Serious Games.

"UAT has an enlightened philosophy about teaching and learning – new ideas are encouraged and embraced."

Randy's class deals with the design of a Flash game including front-end development – everything from graphic design to layout and animation to asset encoding to optimization. By the end of his class, students will have created a game that will perform a runtime demo that looks like a finished Flash game. Randy says that in his position he often feels like the Holden Caulfield of the tech world – there to catch students before they fall of the cliff.

Justin Selgrad

Associate Professor: Game Design and Robotics
BA from University of Wisconsin and MA from Washington University

When Justin was a kid, he was fascinated with computers. When he started playing video games around age 10, he found himself thinking about them a little differently from his friends – he would spend hours filling up notebooks with new Mario Bros levels and powers, designing new props and planning behaviors. Later, when he started exploring *Shadowrun* on the Sega Genesis, he deconstructed games and learned about their more intricate systems.

Now, he's the resident campus Jack-of-all-Trades at UAT, teaching everything from Ethics and Technology to Artificial Intelligence to Java and Game Production. ***"It's been my dream since high school to be a professor, so here I am, living the dream."***

Justin served as a Computer Lab Consultant for his University while he worked toward his Bachelor's degree – a job that prepared him well for a career in education and academics. As he does now for UAT, he spent his days helping students understand and apply technology. In addition to that, he has real-world industry experience as well, both in software engineering and game design, having published two games and currently working on a third, which he hopes to bring to press by the end of this summer.

DAYS OF FUTURE PAST

SCIENCE FICTION GIZMOS GET REAL

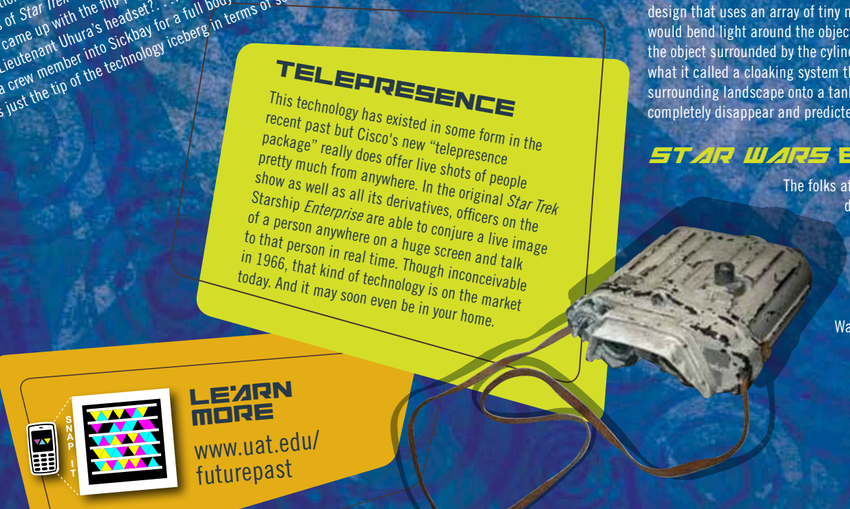
Since 1897, when H.G. Wells popularized the concept and named the Time Machine in his novella of the same name, predicting future events and technology implements has been a staple of literature and entertainment. As the pace of advancing technology innovation has increased over the last few decades, a good number of futuristic, space-age gadgets that were hatched in the brain of a writer have gone on to become a part of every day reality. Oftentimes, the writers have been better able to predict the path of technology than some of the scientists and engineers. Lee DeForrest, American radio pioneer and inventor of the vacuum tube, said in 1926, "to place a man in a multi-stage rocket and project him into the controlling gravitational field of the moon where the passengers can make scientific observations, perhaps land alive, and then return to earth - all that constitutes a wild dream worthy of Jules Verne. I am bold enough to say that such a man-made voyage will never occur regardless of all future advances." Even that icon of American innovation, Thomas Edison, once predicted, "Fooling around with alternating current is just a waste of time. Nobody will use it, ever."

Occasionally, the writers would get it wrong, too. When *Star Trek* started in the 60s, every time the enterprise took a solid hit, the control panels on the bridge would short out, sending sparks everywhere. What's up with that? Didn't they know about fuses on Stardate 41224.4?

Just a quick look at a few of the technological devices that were spawned by *Star Trek* film and TV versions show us a number of science fiction pipe dreams that have become reality. Pull out your cellphone. Does it flip open? You can thank the writers of *Star Trek* for all the telephonic convenience. Several reports have indicated that the industrial designer who came up with the flip phone design took it directly from the handheld "Communicator." And do you remember Lieutenant Uhura's headset? . . Totally today's Bluetooth. And how about when Doctor "Bones" McCoy took a crew member into Sickbay for a full body scan? Three words – Magnetic Resonance Imaging. And this is just the tip of the technology iceberg in terms of science fiction that is now fact. Sticking with *Star Trek* . . .

TELEPRESENCE

This technology has existed in some form in the recent past but Cisco's new "telepresence package" really does offer live shots of people pretty much from anywhere. In the original *Star Trek* show as well as all its derivatives, officers on the Starship *Enterprise* are able to conjure a live image of a person anywhere on a huge screen and talk to that person in real time. Though inconceivable in 1966, that kind of technology is on the market today. And it may soon even be in your home.



SNAP IT

LEARN MORE

www.uat.edu/futurepast

THE TRICORDER

Recently, researchers at the University of Washington said they were experimenting with a device right out of *Star Trek*: a Tricorder-like tool that uses high-intensity focused ultrasound rays. In addition, Purdue University researchers claim they created a handheld sensing system its creators believe could be used for testing foods for dangerous bacterial contaminants including salmonella.

THE TRACTOR BEAM

Call it "Treknology" for microscopes. MIT researchers said recently they have found a way to use a "tractor beam" of light to pick up, hold and move around individual cells and other objects on the surface of a microchip. The technology is known as "optical tweezers" and MIT researchers have found a way to combine this powerful tool for moving, controlling and measuring objects for use in building and manipulating items on a chip. Optical tweezers technology has been around for awhile but the ability to use it in combination with the microchip is what makes this unique, researchers say.

TRANSPARENT ARMOR

Air Force Research Laboratory Engineers are testing a new kind of transparent armor – stronger and lighter than traditional materials – that could stop armor-piercing weapons from penetrating vehicle windows. The group is testing aluminum oxynitride – ALON, a ceramic compound with a high compressive strength and durability. When polished, it is the premier transparent armor for use in armored vehicles.

THE PHASER GUN

The new, real version of the phaser gun comes to us courtesy of Ionatron, which makes what it calls "directed energy weapons." According to the company's website, its devices produce "man-made lightning to disable people or vehicles that threaten our security." Basically, it's a short pulse laser that can be directed at a target with ferocious intensity. It's available in lethal and non-lethal versions.

THE CLOAKING DEVICE

I bet you thought only the Romulans had a cloaking device. Wrong. Purdue University researchers using nanotechnology have taken a step toward creating an optical cloaking device that could make objects invisible. The Purdue engineers, following mathematical guidelines devised in 2006 by physicists in the United Kingdom, have created a theoretical design that uses an array of tiny needles radiating outward from a central spoke. The design would bend light around the object being cloaked. Background objects would be visible but not the object surrounded by the cylindrical array of nano-needles. The UK has also demonstrated what it called a cloaking system that uses cameras and projectors to beam images of the surrounding landscape onto a tank. In recent trials, officials said it had made a vehicle completely disappear and predicted that an invisible tank would be ready for service by 2012.

STAR WARS BINOCULARS

The folks at DARPA, the Department of Defense's central research and development organization, have a plan to build *Star Wars* binoculars that, true to the original movie, would allow soldiers to see miles off into the distance, day or night, warning them of potential threats almost immediately. They've even dubbed the technology "Luke's Binoculars," though the official name is the "Cognitive Technology Threat Warning System."

But, it's so much more than that. You see, the "soldier-portable visual threat warning devices" would also tap directly into the soldier's brain. The binoculars would include a software system "inclusive of operator neural signature detection processing." In other words, like some of DARPA's other cognitive work, the binoculars would use EEG to monitor the brain, quickly alerting soldiers to potential threats (the idea being the brain picks up on patterns faster than the conscious mind realizes).

UNIVERSAL TRANSLATOR

The *Enterprise* constantly dealt with intelligent beings throughout the galaxy. When different languages were encountered, the Universal Translator was there to help bring different cultures together. In the real world today, the U.S. military is using the Phraselator in Iraq for speech translation, and Internet juggernaut Google, among others, can instantly translate Websites to suit user needs. Also, NEC recently announced the first cell phone with speech translation.

"But what about *Star Wars*?" you ask.

THE FORCE

Could The Force be with you? A toy due in stores in the fall of this year will let you test and hone your Jedi-like abilities. The Force Trainer (expected to be priced at $90 to $100) comes with a headset that uses brain waves to allow players to manipulate a sphere within a clear 10-inch-tall training tower, analogous to Yoda and Luke Skywalker's abilities in the *Star Wars* films.

A wireless headset reads your brain activity, in a simplified version of EEG medical tests, and the circuitry translates it to physical action. If you focus hard enough, the training sphere, which looks like a ping-pong ball, will rise in the tower.

BIONIC LIMBS

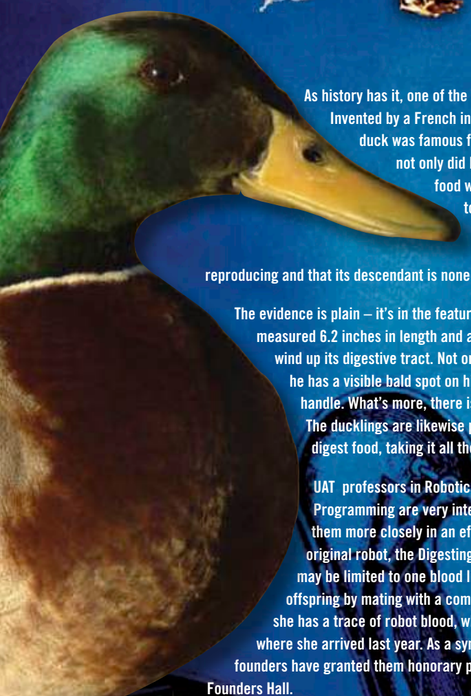
In *Star Wars*, limbs lopped off by lightsabers are easily replaced with robotic parts. Luke Skywalker's hand was replaced with a robotic appendage at the end of *The Empire Strikes Back*, and Darth Vader was, in the words of Obi-Wan Kenobi, "more machine than man." His legs and arms were robotic. Darth was "The Six Million Dollar Sith" way before Lee Majors went all cyborg on TV.

As far out as they may sound, robotic replacement limbs are actually tantalizingly close. The MIT Media Laboratory for instance, developed a robotic knee and lower leg that allows patients to walk almost normally and even rollerblade. Thanks to a chip that reads nerve signals sent to the muscles that remain, the new robotic leg even climbs stairs. A commercial version of the knee, called the Rheo Knee, made by Iceland's Ossur Therapeutics, is now available in the U.S.

Even entertainment that isn't based in science fiction or space-related themes has given us a number of gadgets that eventually became real. We now use the homing device from James Bond's *Goldfinger* (1964) or the tricked out Aston Martin DB5 from the same movie that incorporated many fantasy defense systems that are now standard on specialty armored vehicles used by the wealthy and heads of state. Even comics' page police detective Dick Tracy – if you don't remember him from the comics, perhaps you remember the nearly-unwatchable 1990 movie with Madonna and Warren Beatty – had cool technology. His "Wrist Radio," first shown in the 1930s, has recently become reality with the wrist-ready LG G910 Touch Watch-Phone – the first video/watch/phone to be offered commercially.

DUCKS AMONG U.S.

Introducing Roboduck



As history has it, one of the earliest known robots ever created was a duck. Invented by a French innovator named Jacques de Vaucanson, the robotic duck was famous for its ability to eat and digest food. That's right, not only did Roboduck eat actual food, but it processed that food within its mechanical chambers and… ahem, how to put this… defecated as well. Since the digesting Roboduck was able to perform one biological function, we've deduced that it was also capable of reproducing and that its descendant is none other than our very own Mr. Duck!

The evidence is plain – it's in the features. For example, Roboduck had a neck that measured 6.2 inches in length and a rotating crank protruding from its side, used to wind up its digestive tract. Not only does Mr. Duck's neck measure up exactly, but he has a visible bald spot on his side, in the same location as his ancestor's metal handle. What's more, there is a noticeable metallic sheen to Mr. Duck's feathers. The ducklings are likewise part robot, having inherited the mysterious ability to digest food, taking it all the way through from end to end.

UAT professors in Robotics and Embedded Systems as well as those in A-Life Programming are very interested in our Duck Family and would like to observe them more closely in an effort to prove their lineage, tying it definitively to the original robot, the Digesting Duck. The evolution of this robotic duck species may be limited to one blood line, ending in Mr. Duck, who has diluted it for his offspring by mating with a common Mallard. Still, there is speculation that even she has a trace of robot blood, which is what instinctively led her to the UAT campus where she arrived last year. As a symbol of appreciation for our Roboduck family, UAT founders have granted them honorary permanent residence in the grassy area in front of Founders Hall.

Go to www.uat.edu/duckpaparazzi to see more photos of the duck family.

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
- Network Engineering
- Network Security
- Open Source Technologies
- Robotics and Embedded Systems
- Technology Forensics
- 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

gadgets + GIZMOS

Gametrak Freedom

Gametrak Freedom™ is an ultrasonic 3D motion sensing technology that eliminates some of the limitations of earlier, similar technology. The unit connects to the Xbox 360 via USB and signals a wireless hand-held controller. The system tracks the 3D position and the movements of up to four players anywhere within a given environment.

PDP will launch the Gametrak Freedom exclusively for Xbox 360 in fall 2009. The system will be bundled with "Squeeballs," a game specifically developed to showcase the technology.

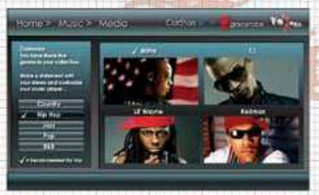
Projected list price: Not Determined

Peapod – The electric car by Chrysler

The new green vehicle by Chrysler is a small electric car made mostly of recycled materials. It's top speed is 25 mph, so it's not cut out for highway travel. The Peapod is totally electric, plugs into a 110-volt outlet — and costs a mere 2 cents a mile to run.

The Peapod can be driven legally anywhere the speed limit is 35 mph or less. Its power comes from six batteries that have a useful life of eight years. They take six hours to fully recharge.

Projected list price: $12,500.



Transforming USB Flash Memory (2GB) Ravage

Transformers are back, and they now can store data! This small cougar-ish beast doubles as a regular old USB thumb drive. It features high speed USB 2 connectivity and 2 GB of storage. Unfold it and it's a stealthy cat of prey with menacing red eyes.

Projected list price: $85.98 for the pair

CarStars – Personalized in-car entertainment system by Gracenote

The world's first personalized automobile entertainment system is here. It's a dynamic user interface tailored to a driver's specific tastes. CarStars provides in-car entertainment using celebrity images and voices – your favorite star can personally DJ your music, calling out titles and artists of the songs on your playlist.

CarStars also responds to voice commands, so drivers can call out an artist, track, album or genre to play their music, or use Gracenote's More Like This feature to create instant, intelligent playlists.

Projected list price: unknown

did you know...

Did you know there's a camera for the visually-impaired? Users hold the camera up to their forehead and a Braille-like screen makes a raised image of what the lens sees.

WristFone by Neutrano

WristFone is a mobile-phone-and-watch-in-one, worn on the wrist. It combines a phone, a music player and a camera inside a functional wrist watch. WristFone is a GSM cell phone watch with a touch-screen LCD display and a built-in numeric keypad for dialing and texting.

The WristFone can be paired to a bluetooth earpiece or the included wired earphones with MIC. WristFone can also tune into radio stations, play videos and connect to the internet. Last but not least, WristFone is a digital watch.

Projected list price: Not Determined

BACK GROUND on UAT

The University of Advancing Technology (UAT) is a private college for techno-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. UAT students attend a technology-infused campus located in the Valley of the Sun, a setting that promotes learning, collaboration and technology in ways that model the future of private college campuses.

UAT is an ideal environment for students who value their own uniqueness and the power of technology in education. The fusion of the traditional academy and the technology college results in a geek-friendly university that is both non-exclusionary and focused on Year-Round Balanced Learning, an educational methodology that ensures students achieve their academic goals in a shorter period of time than traditional colleges. UAT is at the forefront of developing academic programs that tend to be unique among academia or emerge years ahead of other schools, 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.

UAT's academic programs deliver a general education foundation and a humanities-based approach to technology education.

ACCREDITATION
UAT is a senior college accredited by the Accrediting Council for Independent Colleges and Schools (ACICS). UAT is a candidate with the Higher Learning Commission and an affiliate of the North Central Association.

STUDENTS
The University student body is comprised of more than 1200 students coming from all 50 states and six continents.

FACULTY
The University supports 64 full- and part-time faculty members who are leaders in both industry and education.

2009 TUITION
Undergraduate tuition: $8900.00 per semester
Graduate tuition: $5400.00 per semester
UAT-Online tuition: $5150.00 per semester
For more information on UAT Tuition please visit www.uat.edu/tuition

LOCATION
Tempe, Arizona (Phoenix Metropolitan area)

FAST FACTS*
Average Class Size: 15
Student-to-faculty ratio: 14:1
Average Incoming GPA: 3.18
Average SAT Score: 1666
Average ACT Score: 25

* Information based on data collected from the September 2008 class of incoming freshmen

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.

The University of Advancing Technology is accredited by the Accrediting Council for Independent Colleges and Schools (ACICS - 750 First Street, NE, Suite 980, Washington, DC 20002-4241, 202-336-6780) to award associate's, bachelor's and graduate degrees. The Accrediting Council for Independent Colleges and Schools is a national accrediting agency, recognized by the United States Department of Education. ACICS's accreditation of degree-granting institutions also is recognized by the Council for Higher Education Accreditation (CHEA).

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.

ASK A UAT STUDENT

Q: WHAT'S YOUR FAVORITE THING ABOUT UAT?

There's so much technology around us. We have so many computers in the commons loaded with all the latest art and design software. It's like having access to a whole design studio right here on campus.

"we had a water balloon fight on a hot day, which was great. I just loved it."

Q: HOW DO YOU THINK UAT IS DIFFERENT FROM OTHER COLLEGES?

I love the classes, like Concept Art and other specialized classes with hands-on projects. The teachers are involved and really care and the environment is laid back. At bigger schools, the professors barely even know the students at all. Here at UAT, I'm on a first name basis with all my professors.

Alissa Mathiasmeier
Class: Freshman
Major: Game Art and Animation
Home Town: Mediapolis, IA

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WHERE TO FIND WHAT YOU NEED

www.uat.edu
The University of Advancing Technology (UAT) is a unique, technology-infused 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.uat.edu/freshmanexperience
UAT provided six incoming freshmen with HD cameras to document their journey from high school to their first year: "Freshman Experience" at UAT. See what they captured and how their lives have changed.

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

CREW

TECHNOLOGYFORUM2009

Join technology industry experts on the campus of UAT for **presentations & conversations November 4-6, 2009.** It's a great event to get insiders' views on opportunities and breakthroughs in network security, game development, digital animation, robotic systems, software engineering and many other fields.

Plus, many more industry pros and surprises!

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www.uat.edu/techforum
Text "TechForum" to 77812 to RSVP

University of Advancing Technology
UAT
Learn. Experience. Innovate.

HI, ARE YOU BUSY?
HOW CAN I HELP YOU?
I NEED SOME ASSISTANCE

MEET THE STAFF

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

NIKKI **CHRISTIFULLI**

Communications Coordinator / BA from Carthage College

Nikki comes from Sussex, WI, just north of Milwaukee. She serves as the people person for UAT, talking to students and their parents, educating them about the University and its degree programs as well as supporting them through the application process. Nikki graduated from Carthage College in Kenosha, WI, with a teaching degree. She them moved out to Arizona to seek a job in the education field. After teaching in Phoenix for a year, she found and fell in love with UAT.

"The environment here at UAT is very open and laid back. I love that I get to interact with students and their parents as well as the amazing faculty and staff here on a daily basis."

What Nikki likes about UAT as opposed to other universities is that it's like one big family – the students, faculty and staff all know each other and have a good time together. Nikki works in education because she enjoys the opportunity to give back what's been given to her.

STEPHANIE **STONE**

Enrollment Coordinator / BA from Grand Canyon University / MA from Essex University

Almost an Arizona native, Stephanie has spent the past 22 years in the Valley of the Sun after moving across the country with her family from Erie, PA. She received her BA from Grand Canyon University and an MA from Essex University in England. After returning to the states, Stephanie taught high school acting for five years where she learned to help students achieve their goals and reach their potential – a skill most applicable to her role with UAT.

As an Enrollment Coordinator, Stephanie helps students and their parents through the transition from high school into college, guiding and assisting them through each step.

"I love that UAT encourages questions and solutions from the staff. We're empowered to reach across disciplines and talk about what's working and what's not working and bring our insight to the table."

JOE **YARBOROUGH**

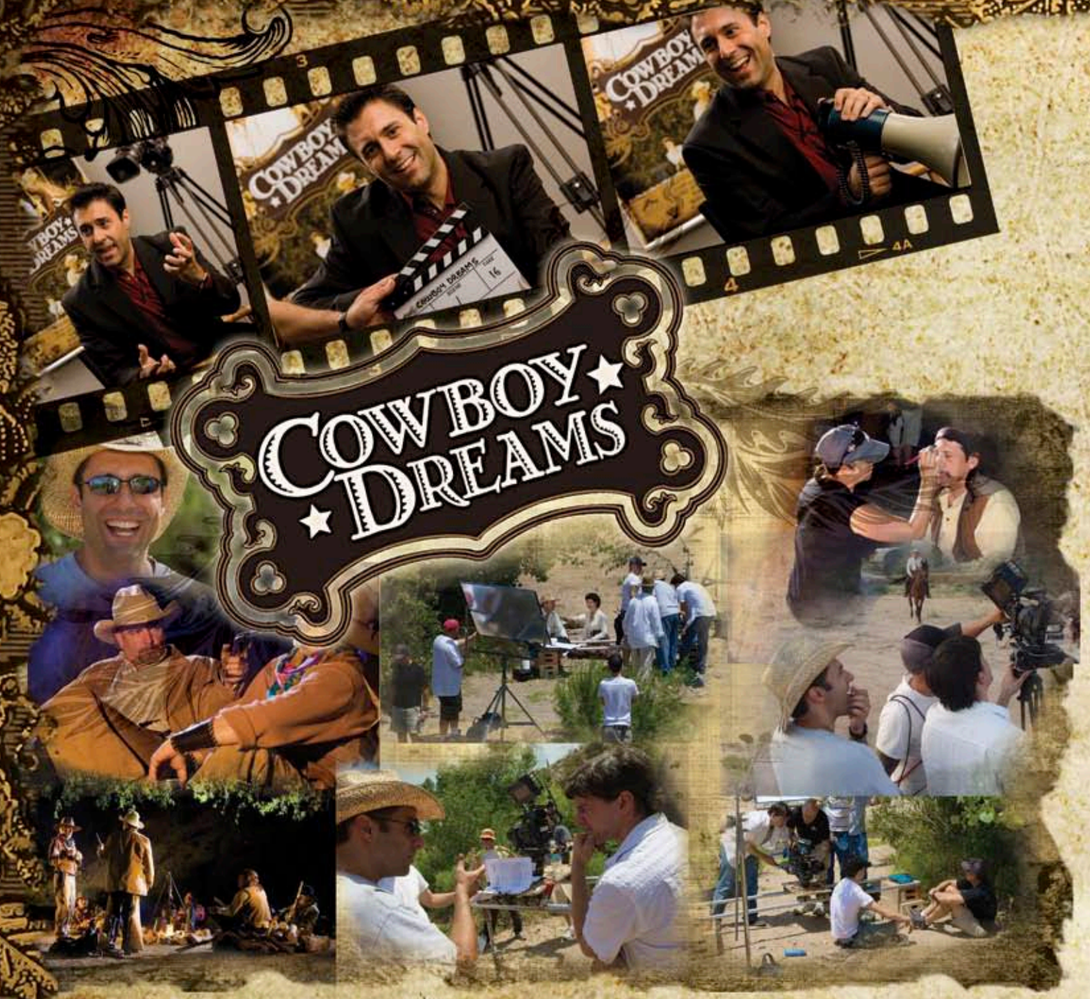
Resident Director / BS from Purdue University / MA from Arizona State University

Aside from venturing off to Indiana to attend Purdue, Joe has been an Arizonan all his life. Originally from Tucson, he came to Phoenix for higher education and found himself working in the spirit of service to it – catering to the needs of UAT students living in Founder's Hall as UAT's Resident Director. Everything from managing building maintenance and keeping the books to planning social activities and events, Joe does it all. It's quite a change from his previous career path in structural and civil engineering.

While working on his master's degree at ASU, he was invited to teach an architecture class there, which revealed his love for education. Landing at UAT seemed fated, as he learned about the position through his wife Ellen Wolterbeek at ASU. After looking into it further, he was compelled to venture down this new path and put his newfound passion for the education field to use.

Maybe his experience designing buildings will inform his role as mentor, lending him the precision of an architect in helping to shape UAT students' college experience.

SNAP IT



DIGITAL DREAMS DO COME TRUE

UAT Co-Produces a Western Short Destined for Greatness

Cowboy Dreams started out as an old screenplay lying on the desk of writer Steve Briscoe, which he wrote years ago. His writing and producing partner, Paul DeNigris, loved the script and was waiting for an opportunity to produce the film with Steve, which arrived in 2008. The pair wanted to get some big name actors to star in the film. Their wish was granted when Bill Engvall agreed to be in the movie because he loves all things cowboy and is a friend of Steve's. Engvall attracted another big name actor, Danny Trejo, which ensured the film would take off.

"Audiences want to see a film based on who's in it," said Paul DeNigris, the Director of *Cowboy Dreams* and a professor of Digital Video and New Media at UAT. "They want to see faces they recognize."

And it's not just audiences either – it's the judges in the film festival circuit. In this digital age, almost anyone can make a movie, so the festivals are flooded with submissions. Judges will pay more attention to the titles with name actors in them. Another side effect of notable actors is attracting the best crew. In the case of *Cowboy Dreams*, the crew was made up of mostly UAT students and alumni. "We had alumni that go back to my first days of teaching at UAT in 2003 who came to work with me on the film," Paul said. In addition to alumni, Paul recruited 10 current UAT students to work on the film.

Paul has been making films in Phoenix for 11 years. He was named the Arizona Filmmaker of the Year at the 2007 Phoenix Film Festival Awards. For the past six years, Paul has been directing films at UAT – projects that give past students an opportunity for paid work and incoming students an opportunity for exposure. He sees these films as an extension of what he does in the classroom, as real experience on set in production with actors is where students learn the most about making films. It also gives them an opportunity to decide if it's what they really want to do.

"Getting students involved in an outside project like *Cowboy Dreams* is really the incubator for the real world. Are they going to be able to be focused and energized for hour 10 and 11 of a shoot? It's sink or swim," said Paul. Some of his current students got the acid test as production assistants for *Cowboy Dreams*, which had a shoot in the desert heat that lasted 14 hours.

Because Paul DeNigris and Steve Briscoe are working professionals in the local film community, they bring that hands-on experience as well as outside opportunities to the students at UAT in the Digital Media and Digital Animation departments. This chance that students get to work on actual productions, side by side with professionals, is one of the distinguishing features about UAT. "At UAT, we blend the cerebral, aesthetic classroom learning with the hands-on, practical movie-making experience," Paul said.

Adam Benson, the audio engineer on *Cowboy Dreams*, graduated from UAT a few years ago and is now running his own audio and visual effects studio with clients all over the world. His studio, Sleep Deprived Productions, is now so busy that he plans to move the business out to Los Angeles and grow it. Paul has employed Adam on all of his film projects over the past few years, which have helped with the success of his career. Adam is just one of many success stories Paul tells to his students. Two others are Jenny Pond and Keegan Eag, both on the crew of *Cowboy Dreams*, who made a feature length documentary called *Poison Wind*, which played in dozens of film festivals all over the world.

"Because of them, UAT films have played in Germany and England and all over the world," Paul said.

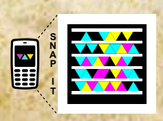
As for *Cowboy Dreams*, it has so far been picked up by two film festivals, the Phoenix Film Festival and the Dances With Films Festival. In addition, the film made it to the Quarter-Finals in the 12th Annual Fade In Awards.

"At UAT, we blend the cerebral, aesthetic classroom learning with the hands-on, practical movie-making experience,"

-Paul DeNigris

CHECK OUT THE ACTION

www.uat.edu/cowboydreams



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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

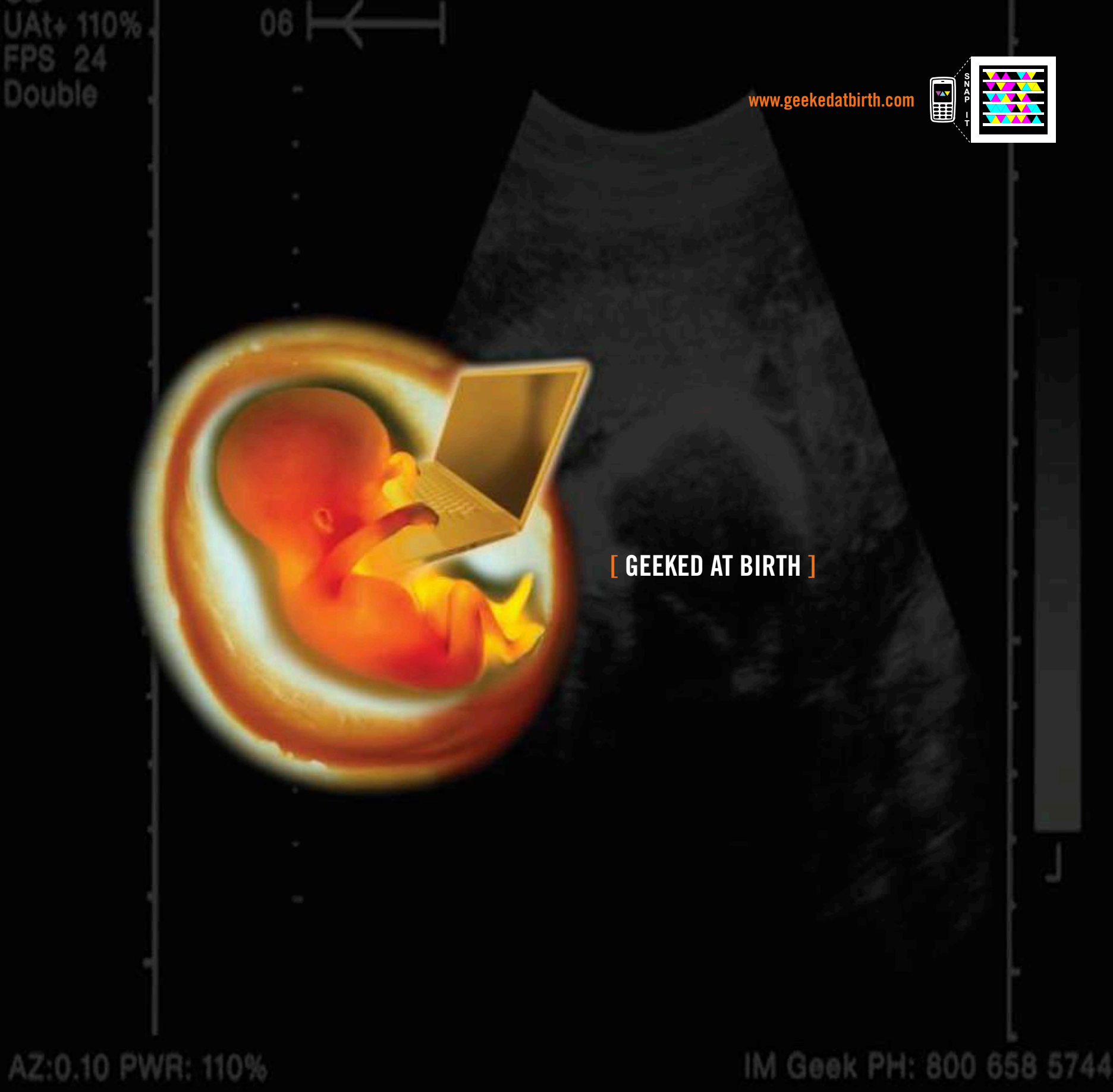
We just recently competed against some of the best fencers in the country. Five fencers went into the competition electrically and two non-electrically. Come join our team!

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!



You can talk the talk. Can you walk the walk? Here's a chance to prove it. Please geek responsibly.

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