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ATLAS welcomes new Ph.D., master’s students

Seven new students have joined the interdisciplinary ATLAS Ph.D. program in Technology, Media and Society and five new students have entered the master’s program in Information and Communications Technology for Development (ICTD).

The total number of Ph.D. students now is 18; the number in the master’s program now is 22.

Ph.D. students

Richelle Cripe is a 2007 graduate of the University of Kentucky with a bachelor’s degree in Fine Art, a minor in Art History, and coursework in Music, Architecture and Computer Science. She traveled through parts of India, Europe, Africa and New Zealand after graduation, which stimulated her desire to learn more about populations worldwide. As a Ph.D. student, she plans to create new avenues that allow under-represented populations the opportunity to access and contribute to the emerging culture of participation, and to use modern technology as a way to capture creative output from populations that have limited access to the global artistic community.

Katherine Goodman received a master’s of Professional Writing from the University of Southern California in 2002 with an emphasis in fiction, and a bachelor’s in Theoretical Mathematics from Valparaiso University in 1997, with a research emphasis in graph theory. Her research interests include using technology to encourage cross-disciplinary work for students. She taught Composition at USC and the Community College of Aurora.

Megan Kinney has more than 10 years of experience in connecting traditionally under-served groups to useful technologies. As a librarian, she has helped refugee youth use GIS mapping to improve their neighborhoods, recent immigrants learn how to send an email, Denver citizens how to apply for the housing lottery online, community college students to embrace the importance of solid research and critical thinking skills. What’s next? Working with female prisoners to give them the digital literacy skills needed to succeed outside of prison and avoid recidivism.

Brit Kos, a Colorado native, recently obtained her master’s degree in Computer Science from CU, where she also received her bachelor’s degree in Computer Science. Her background includes Web development and an interest in advances in digital media.

Hyunjoo Oh is interested in designing motivating experiences with interactive technology to support creative activities. She studied graphic design and media interaction design from Ewha Womans University in South Korea and received a master’s degree in Entertainment Technology from Carnegie Mellon University, where she explored edutainment and tangible interaction related projects. Her research interest involves design, HCI, technology and learning.

Robert Soden has been working at the intersection of community mapping, new technology and environmental modeling for over a decade. As a founding member of the Humanitarian OpenStreetMap Team that most recently worked with the World Bank’s Global Facility for Disaster Reduction and Recovery, Soden has worked or lived in over two dozen countries.

Abigale Stangl is a spring 2013 graduate of the ATLAS Information and Communications Technology for Development (ICTD) master’s degree program, where she has focused on user-centered design, human centered computing, accessibility and gender empowerment. As an ATLAS Ph.D. student, she will work on projects that strive to improve emotional health and well-being for individuals and communities through the application and development of technologies.
ATLAS welcomes new Ph.D., master’s students

Master’s students

Chris Bopp received his bachelor of science degree in Information Technology from Rochester Institute of Technology. He has been a consultant for many organizations, providing guidance on information systems design and security. Bopp gained experience in bridging technology and social issues while at the AIDS Foundation of Chicago and is interested in using big data to understand and evaluate development initiatives.

Scott “Koda” William Dudley earned a bachelor of science degree in Computer Science with an English minor at the University of North Texas in 2003. His career focused on interactive media and the social Web, as well as virtual community and social media. Most of this experience revolved around the video game industry. He works as a consultant and serves on the board for two non-profits. He is also currently president of Apogaea Inc, a non-profit for the arts.

Ralph Klee earned his undergraduate degree in English Language and Literature from the University of Michigan. Recently he has worked as a musician and an herbal medicine maker for local company WishGarden Herbs. He currently studies and performs West African music with the local drum and dance troupe Kissidugu.

Milee Shrestha has a research degree in Informatics from the University of Electro-Communications, Tokyo, Japan. She has a bachelor of science degree in Computer Engineering from Tribhuvan University, Lalitpur, Nepal, where she focused on Internet/intranet applications, multimedia and virtual reality. Her undergraduate project was focused on Human database development using iris recognition.

Vickie Stubbs received her degree from the University of Colorado Boulder in Japanese, German and Political Science. She has worked in program management for many years and continues working at the ATLAS Institute. She is most interested in the policy side of ICT development.

ATLAS Research Roundup

ATLAS Ph.D. student Heather Underwood in June received the first-place graduate student award in the prestigious Grand Finals of the 2013 Student Research Competition (SRC) of the Association for Computing Machinery (ACM) for her research paper entitled “The PartoPen: Using Digital Pen Software to Improve Birth Attendant Training and Maternal Outcomes in Kenya.” Underwood is developing the PartoPen, which is an interactive digital pen-based system that reinforces birth-attendant training, records labor progress, validates form data, and overall aims to improve maternal outcomes in developing countries. Student research competition winners from all ACM conferences from the past year were entered in the Grand Finals.

ATLAS Ph.D. student Josephine Kilde spent the summer in New Mexico as an intern at Los Alamos National Laboratory working with Math and Science Academy (MSA), a LANL community project that is geared toward extensive math and science professional development training for K-8 teachers in New Mexico Hispanic and Native-American Pueblo schools. She worked with four Pueblo schools, of which three are Bureau of Indian Education schools and one is a Pueblo community school. These four schools will serve as a pilot group in the process of developing a MOOC for science, technology, engineering, and math (STEM) teacher professional development training that emulates Native-American natural and cultural learning approaches through the use of video, imagery and culturally relevant examples.

ATLAS Ph.D. student Jiffer Harriman developed a prototype for his music/newmedia/technology research platform. It consists of a main box with a number of 3.5mm stereo jacks (like those for headphones) and compatible modules with various sensors that can be plugged in with a standard stereo patch cable. The sensor modules include rotary knobs, pressure sensors, light sensors, distance sensors and accelerometers among others. He also is working on the software abstraction that will create a simple interface for getting the data into a computer for communication with various applications.

ATLAS Ph.D. student Calvin Coolidge Pohawpatchoko had a presentation accepted for the National Society for Advancement of Chicanos and Native Americans in Science (SACNAS) conference in San Antonio on Oct. 4. He had a presentation accepted for the Nov. 1 National American Indian Science and Engineering Society (AISES) conference in Denver. He also is one of four invited to sit on Navajo Technology University’s newly formed engineering board.
Boulder Box Set wins Heartland Emmy Award

The premiere of the ATLAS Boulder Box Set music/entertainment series, featuring folk/rock musicians Andy Hill and Renée Safier, has been recognized with a prestigious Heartland Chapter Emmy Award for Daniel Mercure, who was the Rocky Mountain PBS post production director of the show.

Boulder Box Set is a music/entertainment series that features performances captured live in high definition at the ATLAS Institute’s Black Box theater at the University of Colorado in Boulder. Kathleen Archuleta, who is ATLAS director of external relations and is friends with Hill and Safier, was instrumental in creating the series.

Hill and Safier performed before a live studio audience in the ATLAS Black Box. The concert was recorded using the Black Box’s high-definition cameras, live switching and state-of-the-art recording equipment. CU and ATLAS students and staff participated in the recording, which was overseen by ATLAS broadcast engineer Bret Mann.

Post production of the show was done by Rocky Mountain PBS.

PREMIERE BOX SET SHOW: Musicians Andy Hill and Renée Safier were recorded in the ATLAS Black Box using new ATLAS HD digital video cameras and a three-way live switcher. The performance was broadcast on Rocky Mountain PBS.

Motorola Solutions Foundation awards grant

The ATLAS Institute has received $45,000 as part of the Innovation Generation grant program from the Motorola Solutions Foundation, the charitable arm of Motorola Solutions Inc.

ATLAS will use the grant to establish the Motorola Solutions Foundation Services Innovation Fund. This fund will support and promote research conducted by graduate students whose research interests involve innovative deployment and adoption of technology and related services around the globe. ATLAS graduate programs include a Ph.D. in Technology, Media and Society, a Master of Science in Information and Communication Technology (ICT) for Development and BDW (formerly Boulder Digital Works), a project-intensive, industry-driven graduate certificate program that focuses on bridging digital and physical environments through creative uses of technology.

Since 2007, the Innovation Generation grant program has provided $3.4 million in support of science, technology, engineering and math (STEM) education programs, supporting more than 400 school, museum and nonprofit programs across the United States and Canada. The Innovation Generation program funds organizations such as the ATLAS Institute that foster and support STEM initiatives for teachers and U.S. preschool through university students – especially girls and underrepresented minorities.

“We are grateful for the generosity of the Motorola Services Foundation that helps ATLAS to advance cutting-edge research by talented graduate students and their faculty collaborators into innovation and value-creation in the technology services sector,” said Jill Dupré, who is the acting director of ATLAS.

Initial research supported by the Motorola Solutions Foundation Services Innovation Fund is being led by ATLAS Ph.D. student Sid Saleh, whose interests lie in exploring group creativity in business organizations.

“We are so honored to partner with organizations like the ATLAS Institute who are helping to create the world’s future innovators and technology professionals,” said Matt Blakely, director, Motorola Solutions Foundation.

“As a company dedicated to helping people be their best in the moments that matter, Motorola Solutions could not be more honored to support graduate level research in innovative programs such as those at ATLAS,”

Innovation Generation is a part of Motorola Solutions’ larger commitment to engaging youth in STEM education.

For additional information on the Motorola Solutions Foundation grants programs, visit: http://responsibility.motorola-solutions.com/index.php/solutions-for-community/

For the full press release about the Motorola Solutions Foundation grant, go to http://atlas.colorado.edu/motorola.
Digital CURREnts students explore technologies

A group of 21 high school students from Denver’s North High School worked on multiple technology projects in this summer’s Digital CURREnts Summer Workshop from June 10-28 at ATLAS.

Workshop participants challenged their technical skills and creativity with units focused on Web site design, digital imagery and animation, digital audio and video production, application and game development and some basic coding.

Students also received an introduction to the basic principles of robotics by experimenting with Cubelets, which is a modular robotic construction kit, in a day-long workshop supported by local tech company Modular Robotics.

Digital CURREnts is offered free of charge to workshop participants and is supported by gifts, grants and in-kind donations from individuals and organizations. The 2013 workshop was supported largely through a $40,000 fundraising challenge issued by Denver-based Campos EPC, an oil & gas pipeline and facility services company.

For more than a decade this outreach program of the ATLAS Institute, offered in partnership with the National Center for Women and Information Technology (NCWIT), has engaged minority and female students from the Denver Public Schools in the use of current information and communication technology (ICT), with a goal of increasing the participation of these historically underrepresented groups in the ICT, computer science and engineering disciplines. In addition to learning how to use the some of the latest software programs and related technology to create personalized digital projects, workshop participants experience what it is like to study and succeed in a college environment.

For more information about the program or to support Digital CURREnts, visit http://atlas.colorado.edu/digitalcurrents or contact Kathleen Archuleta at 303-492-8964.

EXPERIMENTING WITH ROBOTICS: Denver North High School students work with modular robotics kits called Cubelets as part of the ATLAS Digital CURREnts workshop this summer.

Lucy Sanders, who is CEO of the National Center for Women & Information Technology (NCWIT), has received a U.S. News STEM Leadership Hall of Fame award. Sanders co-founded NCWIT in 2004 to significantly increase women’s participation in technology and computing. NCWIT, which is headquartered in ATLAS, helps companies, academic institutions, and K-12 organizations recruit and retain girls and women in technology and computing fields. The award was presented at the U.S. News STEM Solutions 2013 National Conference June 19 in Austin, Texas.

Ruthe Farmer, director of strategic initiatives for the National Center for Women & Information Technology, was among 11 people honored at the White House as “Champions of Change for Tech Inclusion” on July 31. She was recognized for her extraordinary work around expanding technology opportunities for young learners – especially minorities, women and girls, and others from communities historically underserved or underrepresented in tech fields. This Champions of Change event is part of the White House Tech Inclusion Initiative, launched after President Obama issued a call to better equip American graduates for the demands of a high-tech economy during his 2013 State of the Union address.

Joel Swanson, who is director of the ATLAS Technology, Arts & Media program, presented a new artwork and gave a presentation at the closing reception of Counterpath, Sept. 16-20, in Denver. Swanson’s new work explores the computer keyboard as a physical and historical interface that plays an active and often overlooked role in mediating the physical and the virtual. Swanson also is an artist in residence at the Media Archaeology Lab at CU. More information about the lab is at http://mediaarchaeologylab.com.
The ATLAS Speaker Series, which is made possible by a generous donation by Idit Harel Caperton and Anat Harel, hosts distinguished visitors from academia, industry and the arts as part of the ATLAS Institute’s mission to explore information and communication technologies and their effect on society.

The series is an educational and experiential resource for students, faculty and the larger community to discuss the challenges, opportunities and innovative applications of technology. Talks usually run from 4-5 p.m. in the Cofrin Auditorium, ground floor, ATLAS 100 (enter from lobby), unless otherwise noted.

4-5 p.m. Monday, Sept. 30

**Education Technology Today: Radical Ideas in Practical Times**

Idit Harel Caperton will discuss tech ideas like Constructionist MOOCs, Schools-in-the-Cloud and how to design scalable technologies that can disrupt school systems to support innovation-ready citizens. Caperton is a pioneer in new media technology for learning. One of the first MIT Media Lab Ph.D.s, she is founder and CEO of MaMa Media and the World Wide Workshop. As an ATLAS board member, she has helped shape its programs and works closely with the National Center for Women and Information Technology (NCWIT) to inspire and bring more girls into computing and tech innovation.

6-7:30 p.m. Thursday, Oct. 17, Glenn Miller Ballroom, UMC

**Christo and Jeanne-Claude, Two Works in Progress:** Over the River, the Arkansas River, & The Mastaba, a Project for the United Arab Emirates

Christo, an internationally renowned environmental artist, will discuss his creative process and two works in progress: Over the River is a plan to suspend 5.9 miles of silvery, luminous fabric panels high above the Arkansas River in south-central Colorado. The Mastaba, a project for Abu Dhabi, will be the largest sculpture in the world, made from 410,000 multi-colored barrels to form a mosaic of bright sparkling colors, echoing Islamic architecture. Past works include: NYC’s The Gates and the wrapping of the Reichstag in Berlin.

4-5 p.m. Monday, Oct. 28

**Data Science: Art and Craft**

Hilary Mason is the chief scientist at bitly, which is commonly known as a website used to shorten URL addresses, but which also has an attention-ranking product called Realtime. Mason is a co-founder of HackNY, a nonprofit that helps engineering students find their way into the startup community and co-organizer of DataGotham, a technology community in NYC. She was on the Forbes 40 under 40 Ones to Watch list and Crain’s New York 40 under Forty list.

7 p.m. Thursday, Nov. 7

**Blending Animated Graphics, Live Performance & Video**

Miwa Matreyek will discuss her creative process integrating animated graphics, live performance and video. Her animations transform, expand and illuminate as she combines them with her physical body during performances and composites them as video elements in her short films. Matreyek will also perform as part of a three-day festival MEDIALIVE: Exploring Live Audiovisual Arts, Boulder Museum of Contemporary Art, 8 p.m. Friday, Nov. 8. Visit: http://www.bmo.ca/me-dialive and http://www.semihemisphere.com

4-5 p.m. Monday, Nov. 11

**Geospatial Data: Analytic Super Food**

Jeff Jonas will discuss the use of large collections of data, including data on how people move that is created by billions of mobile devices, and about how competitive organizations are going to make sense of what they are observing. He is an IBM fellow and chief scientist of the IBM Entity Analytics Group, which works with real-time analytics and issues related to industry, government, privacy and policy. Acquired by IBM in 2005, Jonas founded Systems Research & Development (SRD) in 1984.

**Massive Open Online Courses (MOOCs): How Do They Work? (Sept. 9)**

Dan Grossman, an associate professor in the Department of Computer Science & Engineering at the University of Washington, shared his experiences as an instructor teaching a MOOC (massive open online course) on undergraduate topics in programming languages and functional programming during an ATLAS Speaker Series presentation on Sept. 9. A video of his presentation is at http://bit.ly/1d4maXp.
Fall Black Box Events

ATLAS Black Box theater events are produced by the ATLAS Center for Media, Arts and Performance. The events are free (unless otherwise noted) and open to the public. The ATLAS Black Box theater is located downstairs, lowest basement level B2 in the Roser ATLAS building. Seating is limited and first-come, first-served. Audiences should arrive 15 minutes before show time.

Sept. 26 & 28; See http://andnowfestival.com/ for times

&NOW Festival of New Writing: Off the Road!
&NOW is a biennial traveling festival/conference that celebrates writing as a contemporary art in all its forms. This seventh edition of the festival will be aesthetic, political, cultural, interpersonal, experimental, conceptual, avant-garde, freaky, hybrid, inaccessible, radical, slip-stream, neo-baroque, post-modern, self-conscious, parodic, ginnicky, and most especially at this moment in history, “innovative.” Previous festivals have been held at The Sorbonne, UC San Diego, SUNY Buffalo, Chapman University, Lake Forest College and the University of Notre Dame. Full festival admission, advance purchase: $75.

Learn more or register: http://andnowfestival.com.

TO BE RESCHEDULED
Virga Sublime – new dance theater
Two-time winners of the ATLAS Innovator Award, international choreographers Kim Olson of SWEET EDGE and Nathan Montgomery of Syzygy Butoh team up with video artist Ana Baer of the San Souci Festival and TSU. A theater of modern dance, butoh, action video imagery and raining sounds will bend the audience’s perceptions of landscape, time, fluidity and truth. Enjoy the immersive journey.


7 p.m. Friday and Saturday, Oct. 25 & 26

The Split Wild – opera premiere
The Split Wild, a world premiere of a contemporary opera, tells a story of the intricacies of love and expectation through animal characters Bobcat, Sea Otter, Bear, Rabbit and Otca. Dancers and onstage musicians pair up to play the range of feelings, thoughts and conflicts of the same character. Fifteen performing artists will present the story through costume, sound, movement, music, and projected images.

The opera was created by Julie Rooney of the University of Colorado Boulder and composed by Jonathan Sokol of Baldwin-Wallace University’s Conservatory of Music in Cleveland. Free.

7 p.m. Saturday, Nov. 9

MEDIALIVE 2013 Concert
Stephen Scott and the Bowed Piano Ensemble, Phillip Stearns and Brian Kane perform as part of the Boulder Museum of Contemporary Art’s (BMoCA) MEDIALIVE four-day festival where artists explore and present new creative forms, innovative technologies and live audiovisual performance.

Ticket price: TBA.

7:30 p.m. Friday and Saturday, Nov. 15 & 16

The Clever Artifice of Harriet and Margaret – new chamber opera
The Clever Artifice of Harriet and Margaret is the new one-act chamber opera premiere composed by CU College of Music’s Leanna Kirchoff. It is based on Alice Gerstenberg’s 1913 play Overtones. It presents the cat-and-mouse conversation of Harriet and Margaret who each try to win their objective without the other knowing it. Adding Freudian layers of ego and id, these characters are shadowed by their inner selves, represented by characters Hetty and Maggie, played by two additional actress/singers. Each shadow character adds their own comments, subtleties and complexities. Learn more: www.cleverartifice.com.

Nov. 18 - Details to come

Americas Latino Festival

7:30 p.m. Friday and Saturday, Dec. 6 & 7

AT BUFFALO, A New Musical
AT BUFFALO, a new musical in development, brings an archive of history to life, making present an experience of the past when definitions of race were literally scripted, directed and rehearsed. This new historical work-in-progress about race and the national American identity is created entirely from archival materials from the 1901 Pan-American Exposition in Buffalo, New York, which include newspaper articles, photographs and film clips. Tickets are $7-$12 and are available at http://tickets.cupresents.org/single/SelectSeating.aspx?p=202.
UPRISE: The Rabble Dance Collective and the ATLAS Center for Media, Arts and Performance presented the aerial dance production and climate story “UPrise” June 28-29 in the ATLAS Black Box. UPrise blended dance, theater, cirque-style aerial movement, gravity-defying acrobatics and live music to present a story about a community coping with natural disaster. A video excerpt is at http://bit.ly/16FPxOe.
A WRINKLE IN TIME: CU Opera performers workshopped the first act of a new piece based on Madeleine L'Engle’s “A Wrinkle in Time” June 14-15 in the ATLAS Black Box. The opera was directed by CU Opera director Leigh Holman with assistance from the opera’s composer, Libby Larsen. A video excerpt is at http://youtu.be/x22MTW-QdEY.

MAPPING: The Boulder-based aerial dance group Frequent Flyers presented “Mapping” July 27 in the ATLAS Black Box. The production was inspired by issues surrounding genetic mapping and incorporated interactive computer graphics that simulated the flow of liquids. A video excerpt is at http://bit.ly/16aokpe.
The Alliance for Technology, Learning and Society (ATLAS) at the University of Colorado Boulder was established in 1997 as a campus-wide interdisciplinary initiative.

The ATLAS Institute is an innovative campus-wide initiative in education, research, creative work and outreach in which information and communication technology is the enabling force. ATLAS programs bring together students, educators, artists, writers, scholars and leaders from the academy, industry, non-profits and government to create a multidisciplinary environment that contributes to the understanding of the interaction of ICT and human society, and to the realization of the full potential of that interaction. More information about ATLAS and its initiatives can be found at http://atlas.colorado.edu.

To contact ATLAS, call 303-735-4577 or e-mail cuatlas@colorado.edu. Follow ATLAS on the Web on a variety of platforms:

ENDO/EXO: Michael Theodore, who is director of the ATLAS Center for Media, Arts and Performance and is an associate professor of music composition and technology, was the featured artist from May 11-June 5 at the David B. Smith Gallery, 1543 Wazee St., Denver. Theodore’s exhibit, titled “organism/mechanism,” includes a kinetic, sculptural lightwork titled “endo/exo” (in photos above and at left); 10 works on paper, five engraved scratchboards and a series of three video works and printed stills. The gallery described the driving force behind Theodore’s artistic practice as “an exploration of perceptual sensations. This exhibition further investigates the fertile interstitial boundary between order and disorder,’ which was expressed in Theodore’s solo exhibition show, Field Theory at the University of Colorado, CU Art Museum in the summer of 2012.”

(Photos courtesy of the artist and David B. Smith Gallery)