Programs expand

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ATLAS welcomes grad students

Ph.D. students, new master’s students meet at orientation
Returning and new Ph.D. students as well as students in the new Master of Science degree program in Information and Communication Technology for Development (MS-ICTD) were welcomed during an orientation session breakfast in ATLAS on Aug. 20. There currently are 13 Ph.D. students, including four who are beginning their studies this fall, and seven new master’s degree students.
The new ATLAS Master of Science degree program in Information and Communication Technology for Development (MS-ICTD) started this fall with seven students.

The program, which is the first of its kind in the United States, prepares students for careers in the use of Information and Communication Technology (ICT) to improve the quality of life of people and communities in developing nations and underserved or impoverished regions.

Students will be trained to address issues of access, social equity, sustainability, appropriate design and distribution.

The two-year program includes three semesters in residence and a one-semester practicum, such as an internship or service project with a non-governmental organization engaged in ICTD efforts.

Organizations participating in the practicum may be public or private sector, international development agencies, foundations and/or non-governmental organizations.

Revi Sterling, who is the first graduate of the ATLAS Ph.D. program, is the director of the master’s degree program.

Complete information about the program, ranging from an overview to the curriculum to how to apply, is available through the ATLAS Web site under the “ICTD Master’s Degree” link.

Diverse backgrounds

Matt Crum is pursuing the degree with an interest in using technology to expand communication.

He currently is a Web producer for an international relief and development organization specializing in Web strategies that deal with advocacy around the international issues of HIV/AIDS, malaria, hunger and child trafficking.

He earned his bachelor’s degree in computer science from West Virginia University.

Lakshmi Haridas has spent more than seven years developing software for various contexts, from firmware to Web applications, before deciding she wanted to use her technology skills to give back to society.

She believes the master’s program’s dual emphasis on technology and development is a perfect fit.

She holds a B.Tech in Computer Science & Engineering from the University of Calicut in India.

Kevin McElhinney is the technology director for the School of Education & Human Development at the University of Colorado in Denver.

Enlightened to the potential of ICTD through working with urban school teachers and technology work with a Denver nonprofit, McElhinney is interested in designing technology solutions focused on educational accessibility and knowledge equity.

Alexandra Morgan is the founder and managing director of Tapping Brilliance, a newly formed development firm that provides capacity building services to the education sector, with a focus on building a strong education sector in post-earthquake Haiti.

She graduated magna cum laude from Benedict College in Columbia, S.C., where she earned a bachelor’s degree in Political Science.

Morgan is pursuing the study of mobile technology, particularly mobile learning, and ICT/telecom policy and regulation.

Robert Tester’s interests are in user interfaces, mobile technology and community involvement. He has been working as a software engineer specializing in educational Web applications.

He earned his bachelor degree in computer science at Texas A&M University.

Nicole Stephan comes to ATLAS from the greater Detroit area where she received her bachelor’s of Fine Arts in graphic design from the College for Creative Studies.

Her interests are focused on usability, utilizing her past experience in information design to create systems tailored for the needs of developing countries.

Most recently Stephan worked as a senior information designer at Wall Street on Demand, designing chart generating applications for Reuters and the Wall Street Journal.

Felicia Williams plans to study the use of interactive media as an educational tool in developing regions.

Prior to her graduate studies, Williams specialized in Internet television, online media and Web communities.

She was the entertainment content manager at YouTube, where she selected the featured videos for YouTube’s entertainment, travel and video game category pages, as well as the homepages of both the United States and Canada.

She earned a bachelor’s degree in Journalism from New York University.
Enrollments in TAM programs up 57%

Demand caused by the new minor in Technology, Arts and Media has pushed enrollments in TAM programs up by 57% over last fall when the program was just getting under way.

The minor, which requires a combination of required courses and electives totaling 21 credits, integrates technological skills with a critical, theoretical and historical understanding of technology, media and the arts.

Students from a wide range of majors receive instruction in digital media production, design, art criticism, computer programming, information technology, media and societal analysis, and project development. Many students use the program to prepare for careers in information technologies, media production and the arts.

Prior to last fall, ATLAS offered an 18-credit certificate in Technology, Arts and Media. That program now has been replaced with a 9-credit certificate in Digital Media. It is offered as an option for students who either do not have the time required to complete the minor sequence or for students who were not accepted into the minor program.

Enrollments in the minor and certificate programs this fall total 428 students; a year ago, there were a total of 272 students in TAM programs, for a 57% increase in enrollments.

The enrollments still tend to be tilted slightly more female than male. Fifty-six percent of the students are female. This runs counter to most technology programs, which tend to have enrollments that are heavily tilted toward males.

The enrollments come from diverse parts of campus, with students coming from seven different colleges and 58 different majors. Journalism students 27% of TAM students, with 128 declared Journalism majors and 45 pre-journalism majors.

Debra Richardson named ATLAS visiting professor

Debra Richardson, the founding Ted and Janice Smith Family Foundation Dean of University of California Irvine’s Donald Bren School of Information and Computer Science, has been named the ATLAS visiting professor of Technology, Learning and Society.

Richardson is a professor of Informatics at the University of California–Irvine, where she recently stepped down after 10 years as dean of the Bren School of ICS.

While on sabbatical visiting ATLAS, Richardson will lead the seminar for the Ph.D. in Technology, Media and Society, and will pursue a new research thread and other national service activities.

Her research has focused on enabling specification-based testing technology throughout the software lifecycle, from requirements and architecture analysis through operation and evolution.

She has recently expanded her research interest to adapting software engineering methods to the domain of Information and Communication Technologies for Development (ICTD), with a specific interest in developing new requirements engineering approaches for work with marginalized peoples, such as those in developing countries. She will be exploring these ideas in conjunction with ATLAS’ new master’s degree in ICTD.

Richardson has been committed to increasing the participation of women and other underrepresented populations in computing and information technology.

She serves as part of the leadership team of the National Center for Women and Information Technology (NCWIT), whose national headquarters are located in ATLAS. Richardson has led the NCWIT hub at UCIrvine.

Richardson is currently also serving as chair of Computer Science Education Week (CSEd Week), a week dedicated by Congress to bolster computer science education at all levels. She chairs ACM’s Computer Science Teachers Association (CSTA) Advisory Council. She also serves as chair of the CRA Deans Group, established to provide leadership and community to emerging and established schools and colleges of computing and interdisciplinary “IT” academic organizations.

ATLAS is a member of the CRA Deans Group. NCWIT and CSTA are two of the co-sponsors of CSEdWeek.

Richardson received her B.A. in Mathematics from the University of California, Berkeley, and a bachelor’s degree in computer science from Princeton University. She also worked for six years at Pixar Animation Studios.

Ph.D. program expands to 13

Four students are joining the ATLAS Ph.D. program in Technology, Media and Society this fall, bringing the total number of students to 13.

They are:

• Kara Behnke, who is a 2010 graduate of the University of Colorado with a bachelor’s degree in Japanese, a minor in Chinese and a minor in the ATLAS Technology, Arts and Media program.

• Casey McTaggart, who has a master’s degree in environmental engineering from the University of California, Berkeley, and a bachelor’s degree in computer science from Princeton University. She also worked for six years at Pixar Animation Studios.

• Heather Underwood, who graduated with a computer science degree from the University of Washington, where she developed MultiLearn, a groupware system for elementary education.

• Joanne White, a native of Australia, has just completed a master’s degree through the School of Journalism and Mass Communication at CU.
DigitalCUrrents students note school’s anniversary

Jacob Melvin, a technical director at DreamWorks Animation where he has worked on animation projects such as “Kung Fu Panda” and “How to Train Your Dragon,” was one of the featured speakers during the DigitalCUrrents summer technology program at ATLAS.

DigitalCUrrents, a three-week summer intensive, teaches high school students the use of various technologies that combine art, math and software. The program is a partnership between ATLAS, the National Center for Women and Technology and Denver’s North High School Computer Magnet Program.

This year the students learned programs such as Google SketchUp, MorphX, Photoshop, Finalcut Pro and Garage Band to create a unique representation of their school’s past in celebration of the school’s 100th anniversary.

Melvin, a University of Colorado computer science and ATLAS Technology, Arts and Media (TAM) graduate, has worked for Dreamworks since an interview during a National Society of Black Engineers’ career fair in 2007 turned into more interviews and a job offer.

Melvin talked about his Dreamworks experiences and how important it is for people to pursue college studies and a career doing what they love to do.

The DigitalCUrrents program was made possible through donations from Xcel Energy, viaWest, Parsons Construction, Google, CU’s Office of Diversity, Equity and Community Engagement, CTE, Pasta Jay’s, Costco Wholesale and Target.

View DigitalCUrrents student comments on the ATLASBOULDER YouTube channel at http://www.youtube.com/user/ATLASCUBOULDER, or read about Melvin’s visit on the ATLAS blog at http://cuatlas.blogspot.com/.
Telecom course raises worldwide issues

Eighteen telecommunications employees, officials and regulators from throughout the world studied issues related to telecom expansion, regulation and cultural differences during a weeklong course in July at ATLAS.

The course was sponsored by ATLAS, the CU Silicon Flatirons Center for Law, Technology and Entrepreneurship, and the United States Telecommunications Training Institute (USTTI).

The course, entitled “Managing Effectively in the Changing Telecommunications Environment,” was organized by ATLAS associate director Jill Van Matre and Dale Hatfield, who is executive director of the Silicon Flatirons Center and is an adjunct professor in CU’s Interdisciplinary Telecommunications Program. Prior to joining the University, Hatfield was the chief of the Office of Engineering and Technology at the Federal Communications Commission.

Topics ranged from issues and definitions of privacy, management techniques, economics, marketing, privacy regulations, data security, telecommunications regulation and decision-making.

A highlight of the course was a presentation by Ambassador Philip Verveer, a deputy assistant secretary of state, who talked about current and potential future international telecommunications concerns.

Participants came from Ghana, Nepal, Burma, Nigeria, Uganda, Liberia and Bangladesh.

The USTTI is a non-profit public-private partnership between senior federal officials and leaders of the U.S. information and communication technology and broadcast industries.

Teachers find games can be engaging

Twenty-three high school teachers from all over the nation participated in a training workshop called “CS4HS: Computational Thinking and Computational Doing” in ATLAS.

The workshop, held from June 25-27, and sponsored by ATLAS and Computer Science, was aimed at teaching teachers how to use computing and technology in the classroom.

The teachers learned how to program a “Frogger” game, as well as an Ant Farm used to teach various math and probabilities concepts in a fun and engaging way.

ATLAS director John Bennett, who is a computer science professor, was among the speakers for the workshop, which was conducted by CU Computer Science professor and ATLAS Board member Clayton Lewis and Alexander Repenning, also of Computer Science.

The event was sponsored by Google and AgentSheets Inc., which is a game development software program company founded by Repenning.
Black Box books early for fall semester

Performances in the Black Box Studio booked up early for the fall semester after extensive planning efforts during the spring and over the summer.

The events range from multimedia dance and video performances to festivals that celebrate music and cinema.

Here is a listing of remaining events for the semester:

**Disappear Here**

Two dance companies, Sweet Edge and Syzygy Butoh, combine modern dance and Japanese Butoh with video and movement in two remaining Black Box performances of “Disappear Here” this weekend, 8 p.m. Friday and Saturday, Sept. 24-25.

The dancers are:

Sweet Edge: Jennifer Arnone, Danielle Dugas, KC Chun Manning, Kim Olson, Jennifer Twilley.


Depending on where tickets are purchased, prices vary. For the general public, tickets range from $17 to $20. For students, $13 to $15. For details, visit http://www.colorado.edu/atlas/disappearhere/.

**Stockhausen 2010 Festival**

- Free music lectures at ATLAS, 2 p.m. Thursday, Sept. 30, Black Box. The lecture and discussion focuses on the eclectic and visionary music of German composer Karlheinz Stockhausen (1928-2007).

- Stockhausen 2010 Festival: Free concert at ATLAS, 4 p.m. Sunday, Oct. 3, Black Box Studio.

**reConstruction**, a piano/video/performance/art installation, 7:30 p.m. Friday, Oct. 8, Black Box. Composer and artist Ryan Wurst examines the nature of dream and memory with modified piano, video and found objects.

**Poemedia**

Poemedia is an interactive poetry/sound/video performance and art installation featuring two performances: 7 p.m. Friday, Oct. 22, and Saturday, Oct. 23, Black Box. Immerse yourself in an environment with a live DJ/VJ performance pumping out sound, music and video projected on hanging paper printed with poetry.

**Una**

Experience the fantasy journey of a young woman as she enters worlds of light and darkness – all told through dance, theater, film, music and bold colors, 6:30 p.m. Thursday, Nov. 18; 6:30 and 8:30 p.m. Friday, Nov. 19, Black Box Studio.

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**Opera workshop: CU composers Hershchel Garfein (at left in photo at left) and Robert Aldridge (second from right) offer critiques during an opera workshop performance of “Sister Carrie” Aug. 29-31 in the Black Box. The performances included full costumes and colorful scenery that was projected onto background screens.**
Sans Souci Festival of Dance Cinema: A niche film festival of dance cinema and live performance was featured Sept. 10-11 in the Black Box. The event featured two different programs of dance cinema and also included a dance/media panel discussion.

Disappear Here: Two dance companies – Sweet Edge and Syzygy Butoh – cross genres, blending video and movement in a production that was inspired by the wilderness and performed Sept. 17-18 and upcoming again Friday and Saturday, Sept. 24-25. View a video trailer of the production on the ATLAS YouTube site at http://www.youtube.com/user/ATLASCUBOULDER. More information: http://atlas.colorado.edu/atlas/disappearhere.
Award for Aspirations competition opens

Competition for the National Center for Women and Information Technology’s Award for Aspirations in Computing is now under way.

The award was created to encourage more women to pursue computing and technology careers, introduce young women to leadership opportunities in the field, and generate visibility for women’s contributions. Students can apply online at www.ncwit.org/award.

Sponsored by Bank of America, The NCWIT Award for Aspirations in Computing is open to any U.S. high-school-level female in grades 9-12.

For the second year, NCWIT also has partnered with Microsoft, Motorola, and Google to offer local Affiliate Awards for Aspirations in Computing for young women in regional areas — including the Bay Area, Boston Metro, Illinois, Texas, Oklahoma and Arkansas, Florida, and more.

NCWIT news notes

NCWIT has produced several new resources over the last few months:

Moving Beyond Computer Literacy: Why schools should teach computer science. This resource — created with the support of ACM and CSTA — provides information about the value of computer science curriculum for students, educators, local and national economies as well as global society. It offers steps schools can take to successfully incorporate computer science education. See http://www.ncwit.org/schools.

Offer Computing Workshops and Camps: They Benefit Both Students and the Teachers Who Offer Them. This card and accompanying Web site is a resource for computer science teachers that offers ideas for partnering, existing curriculum, and materials for implementation. See http://www.ncwit.org/summcamps.

America’s Got Talent — But Not Enough Is Going into Computer Science. This resource describes the rationale for and a description of CS Principles, a new advanced placement computing course in development by NSF and the College Board. CS Principles is designed to be engaging, inspiring and rigorous, and if implemented in schools, could profoundly impact the number and diversity of students receiving a computing education. See http://www.ncwit.org/csprinciples.

The 2011 NCWIT Summit on women and IT: practices and ideas to revolutionize computing will take place next year in New York City, May 23-25.

NCWIT advocates legislation to expand K-12 education programs on computer science

To help address the lack of talent in computing, local Rep. Jared Polis recently introduced the “Computer Science Education Act,” designed to improve the quality and ubiquity of computer science education in K-12 schools nationwide and in turn bolster the nation’s IT workforce.

Last year in Colorado, only 250 students took the Advanced Placement Computer Science exam.

Meanwhile, the Colorado Department of Labor projects that the Boulder/Denver corridor will generate 2,500 new tech jobs each year between now and 2018.

NCWIT was instrumental in advocating for this legislation, with the support of partners including Microsoft, Google, Intel, ACM, Computer Science Teachers Association, Computing Research Association and the Anita Borg Institute. A vote is expected this fall.

NCWIT has assembled a state-by-state set of education and workforce data to help members of government in their advocacy efforts at http://www.ncwit.org/cseducation.

Research Center news

Sarah Hug continues her evaluation and social science research efforts in computing education contexts.

As a Partnership for Comprehensive Equity (PACE) visitor, she was invited to speak at the University of Montana about women’s underrepresentation in computing and the contexts that support engagement.

Hug joined a new project this summer that proposes to spark research creativity by teaching computational scientists about improvisational theater.

A portion of her evaluation work on introductory computing courses was presented at the American Society for Engineering Education.

Tim Weston recently received funding from the NSF to further develop and disseminate the Undergraduate Research Student Self Assessment (URSSA) survey to be used as a common tool for NSF Research Experiences for Undergraduates (REU) programs.

Currently the assessment is being used at over 100 universities to gauge student learning in REU programs.
Ph.D. student Behnke explores game conference

Kara Behnke, whose goal as an incoming Ph.D. student is to help increase women’s participation in computer science through the engaging technologies of video game development, attended the E3 Expo annual video game conference and show at the Los Angeles Convention center this spring.

The event is the premiere convention for the announcement of new games and gaming hardware.

Behnke is a 2010 graduate of the University of Colorado with a bachelor’s degree in Japanese, a minor in Chinese and a minor in the ATLAS Technology, Arts and Media program.

She also served as a teaching assistant in the “Computer Game Development for the XBOX 360,” XBOX game development course last spring.

The course was the first XBOX game development course taught at CU.

In the photo at right, Behnke stands in front of a new model Ferrari and the XBOX 360 display.

Sara Preston ATLAS accountant

Sara Preston has joined ATLAS as an accountant.

A graduate of the University of Colorado at Boulder with a degree in Communications, Preston previously worked for nine years at Sun Microsystems and has experience in several entrepreneurial adventures.

She started her new position in July.

Vickie Stubbs named ATLAS assistant to the director

Vickie Stubbs has been named assistant to the director, assistant building proctor and assistant event coordinator for ATLAS.

A native of Georgia and mother of three, Stubbs came to Colorado to study Japanese, German and political science at CU.

She has a love for languages and triathlons. In the photo at right, she is finishing a triathlon in Canada this summer.

She previously worked as events coordinator in the BOLD Center, which is a K-12 math and science outreach program that also supports underrepresented populations in the College of Engineering.

Gary McCrumb named ATLAS Titan of Quarter

Gary McCrumb, the performance production manager for the ATLAS Center for Media, Arts and Performance, is the winner of the ATLAS Titan of the Quarter Award.

McCrumb, an ATLAS employee since 2006, oversees the technical demands of a dizzying number of different performances, including the multi-week residency of this summer’s CU Opera program (which presented a world premiere by CU composer Daniel Kellogg), and ATLAS’s first official Fringe Festival performance (Gemma Wilcox).

In addition to his hands-on technical work, Gary also hires, trains and supervises a growing number of student crew members.

Prior to working at ATLAS, McCrumb worked on performances at Macky Auditorium at CU.
Ten ATLAS students to attend Hopper event

Ten female students from the ATLAS Technology, Arts and Media program, the new Master of Science in Information and Communication Technology for Development, and the Ph.D. program in Technology, Media and Society will be among ATLAS representatives at the 2010 Grace Hopper Celebration of Women and Computing later this month.

This event is the premier annual gathering of technical women from industry, academia and government laboratories, drawing approximately 2,000 people. There is equal emphasis on technical skills and community building, including structured mentoring programs and awards designed to promote the visibility of up-and-coming female technologists from around the world.

ATLAS is one of three Gold Academic Sponsors of the conference. ATLAS director John Bennett and master’s program director Revi Sterling have attended the conference for several years. Sterling has chaired many past conference committees.

The event, to be held Sept. 28-Oct. 3 in Atlanta, is a program of the Anita Borg Institute for Women and IT (ABI), an organization with close links to the National Center for Women and Information Technology, whose national headquarters is located in ATLAS.

Swedish media executives learn about ATLAS programs

About a dozen Swedish media executives visited CU Sept. 2 as part of a U.S. media-trends tour. The group’s focus was learning about the latest developments in digital media. ATLAS associate director Jill Van Matre (at right in photo) and ATLAS Ph.D. student Joanne White explained various aspects of ATLAS programs.

The group also visited with Journalism School dean Paul Voakes, Digital Media Test Kitchen director Steve Outing, and the Boulder Digital Works leadership.

ATLAS Institute

The Alliance for Technology, Learning and Society (ATLAS) at the University of Colorado at Boulder was established in 1997 as a campus-wide interdisciplinary initiative.

ATLAS broadens the benefits of the networked information age by providing multidisciplinary curricular, research and outreach programs that integrate information and communication technology with a wide variety of disciplines and people, both inside and outside the university.

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 at http://atlas.colorado.edu, and on:
See more Technology, Arts and Media (TAM) student projects at:
http://www.colorado.edu/atlas/newatlas/tam/gallery.html and
http://www.colorado.edu/atlas/newatlas/tam/gallery2.html