The ATLAS Institute announces the naming of the Roser ATLAS Building on the University of Colorado’s Boulder campus.

We gratefully acknowledge the generous support and leadership of the Roser Family, and in particular, Becky and the late Jim Roser, who were the founding Co-Chairs of the ATLAS Advisory Board.

Their leadership and vision helped shape ATLAS and its programs for over a decade. In that time, ATLAS has grown from a small idea to a rich assembly of programs and initiatives in research, education, creative work and outreach that engage the campus, community and the world.

ATLAS continues to thrive because of the advocacy and philanthropy of all its supporters. We are delighted to recognize a family that is emblematic of this support.

Becky Roser and the late Jim Roser issuing awards during the opening of the ATLAS building in 2006.
New students enter graduate programs

Ph.D. total at 15; master’s hits 21

Three new students have joined the ATLAS Ph.D. program in Technology, Media and Society and 15 students have joined the ATLAS Master of Science in Information and Communication Technologies for Development (MS-ICTD) program this fall.

The Ph.D. program now has a total of 15 students. The new Ph.D. students are:

**Kevin Moloney** is a 24-year veteran of photojournalism and has spent 15 years as an educator with the School of Journalism and Mass Communications at CU. He holds a master’s degree in Digital Media Studies from the University of Denver.

Moloney’s photos have appeared in the New York Times and the NYT.com Web page; his work as a writer and photographer also has been published by the National Geographic Society, Chicago Tribune, Los Angeles Times, TIME, Newsweek, US News & World Report, Stern, Paris Match, The Washington Post and scores of other international publications.


**Lise Ann St. Denis** has two undergraduate degrees from Colorado State University. She has a bachelor of arts degree in Graphic Design and a bachelor of science degree in Computer Science. She also did graduate work in Human Factors Engineering at the University of Idaho.

St. Denis worked on technical publications for five years at the U.S. Fish and Wildlife Service. She then worked for 13 years at Hewlett Packard, where she worked on the design of internal information systems, user interface design and project management. She also recently owned a retail business in Boulder.

St. Denis plans to pursue studies in data visualization and crisis informatics.

**Sid Saleh**, who has a bachelor of science degree in Mathematics from the University of Houston, started ServicesRevenue, a developer of service-oriented sales tools and business model analytics. As CEO, he set the strategic direction for the Technical Support Alliance Network, a non-profit trade association. He has held marketing management positions at Claris (Apple’s software subsidiary) and Gateway.

His article “Demystifying Conjunct Analysis” won the 2001 AFMSI’s Writers Award. He also is a 2003 recipient of the George O. Harmon Award.

Saleh researches multi-disciplinary approaches to value creation and perception.

15 join master’s

The 15 students joining the MS-ICTD program bring the total number in the program, now in its second year, to 21.

The new students are:

**Abigale Stangl** and **McClees Stephens** are both from CU’s Environmental Design program. There are five additional CU graduates in the program: **Chase Elder**, **Isla Schanuel**, **Matt Hulse**, **Maryam Moghaddam-Zaideh** and **Dani Rodriguez**.

Rodriguez, Schanuel and Stephens were part of the ATLAS Technology, Arts and Media undergraduate program.

Moghaddam-Zaideh is a transfer student from CU’s Electrical and Computer Engineering (ECE) master’s program. Hulse is doing the MS-ICTD while pursuing a Ph.D. in ECE. Hulse is a key part of the NapoNET ICTD effort, as is Revi Sterling, who is director of ATLAS Graduate Studies in Information and Communication Technologies for Development.

**Joellen Raderstorf** is a long-time activist and found ed Mothers Acting Up. **Diana Pesenti** comes to ATLAS from Naropa University in Boulder, where she studied psychology. **Alex Viggio** works for the office of Faculty Affairs at CU. **Chris Carruth** is a former IS manager from CU Colorado Springs, and is off to run the Chicago Marathon in a few weeks. **Neil DiMuccio** is an economics and finances major who has spent time in the field in Latin America; **Mustafa Naseem** is a fieldwork veteran having been a part of MIT’s IDDS and D-Lab efforts, most recently in Ghana and in his native Pakistan. **Hawra Rabban** is joining the program from Saudi Arabia, and Rajat Banerjee from India, where he worked for a large ICTD publication.

The two core courses the new students are taking – ICTD Case Studies and Global Development 1 – also have a large number of students from outside of ATLAS, mostly from Journalism and Engineering (mainly from the Mortenson Center for Engineering for Developing Communities program, with whom ATLAS is growing a curriculum relationship).

Digital Media Bootcamp draws 19

Digital Media Bootcamp, a three-week intensive digital media certificate program offered by the ATLAS Institute and the CU Division of Continuing Education, drew 19 people the first time it was offered during this summer’s Maymester.

The program is intended to give students and industry professionals the necessary skills to be competent designers and developers of digital media. Students learned digital video, audio and Web skills during the course.
Digital pens studied as aid for safe births

Ph.D. student Heather Underwood and ATLAS master’s program director Revi Sterling visited Kenya in August to evaluate current methods that nurses and midwives use for tracking the progression of labor.

Underwood focused on the use of partographs, which are a paper form used to track and monitor births used as a referral tool for complications arising during labor. The form can help reduce instances of obstructed labor, still birth and maternal mortality by catching complications early.

Despite the lifesaving ramifications of using this tool, the partographs form is often used incorrectly.

Field observations reinforced the specific barriers cited in prior partograph studies and revealed the importance of support for innovations that can increase the correct use of the partograph.

Underwood’s research focuses on incorporating digital pen technology into the paper-based partograph procedures. The digital pen provides audio prompts for instructions and reminders, real-time data checking on the form, training modules for nursing students to practice using the partograph and suggested actions based on form data.

The digital pen retains the integrity of the current paper-based system, making it intuitive and familiar while adding a digital component, and addresses the most commonly cited barriers to partograph adoption in developing countries.

Underwood and Sterling plan to return to Kenya in December to perform an initial pilot study at Kenyatta hospital, the flagship teaching and training hospital for the entire East Africa region. They also will be organizing a meeting for members of the Ministry of Health, the Ministry of Public Health, the World Health Organization, University of Nairobi administrators, OB/GYN doctors and nurses.

Underwood and Sterling also revisited areas of Kenya where Sterling six years ago conducted her Ph.D. research, involving giving women a voice in their communities through the use of community radio.

Ph.D. students

Calvin Pohawpatchoko gave a presentation about his “Native Science @ DMNS (Denver Museum of Nature and Science)” project, which involved Native American high school students developing interactive Denver museum displays, at the Cosmic Serpent Conference in May in Taos, N.M. Cosmic Serpent is a collaborative project led by the Indigenous Education Institute and UC Berkeley Space Sciences Laboratory through National Science Foundation grants.

Pohawpatchoko completed the second year of the museum pilot project this summer. Students were involved with creating programming for a mobile device to go directly to a Web site so a Denver Museum of Nature and Science visitor could learn more about a museum diorama.

Sarah Viewig authored a paper entitled “Natural Language Processing to the Rescue? Extracting Situational Awareness Tweets During Mass Emergency,” which was presented and published at the International Conference on Weblogs and Social Media 2011.

She also attended the 2011 Human Computer Interaction Conference.

Kara Behnke recently co-authored a paper with ATLAS Ph.D. student Leslie Dodson and ATLAS Institute Director John Bennett entitled “Games for Development: A Framework for Assessing Serious Games and ICTD.” The paper has been submitted to the ICTD Conference in Atlanta.

She also is working on two proposals to conduct research in the game World of Warcraft. One study explores a women’s community within the game. The second examines cultural differences and play experience between the Chinese and American versions of World of Warcraft.

(Continued on Page 4)
(Continued from Page 3)

Behnke also is working with Bennett in the development of a new game development course, and on building a virtual island on ATLAS servers running the open source version of Second Life virtual world software.

Edwige Simon will present a paper entitled “The Impact of Online Learning on Higher Education Faculty Professional Identity” on Nov. 9 at the International Conference on Online Learning in Buena Vista, Florida.

Master’s students

Lakshmi Haridas contributed a chapter to the International Telecommunications Union report on “Accessibility in Mobile Phones and Services for Persons With Disabilities: A Global Study.”

Alexandra Morgan served for nine weeks as the ICT4E intern with the Haiti Connected Schools Project, a pilot initiative and Clinton Global Initiative (CGI) commitment of Microsoft, HP, Inveneo and World Vision that aims to install 40 school-based computer laboratories in rural Haiti. In November, Morgan will head to Kingston, Jamaica, for the 23rd annual Haitian Studies Association Conference where she will present her recently-accepted paper entitled, “Designing Technology-Enhanced Learning Environments in Haiti: A Working Paper.” In June, Morgan attended the Inter-American Development Bank (IDB) and Haiti Ministry of Education (MENFP) ICT in Education two-day envisioning workshop and three-day summit held in Port-au-Prince, Haiti.

Alex Viggio has been working on the CU implementation of the open source software VIVO (see http://vivo.colorado.edu), which allows faculty to post information about themselves and research, allowing people from various disciplines to discover common research interests. Viggio also was on a panel discussing the VIVO open source community during the VIVO Conference in August in Washington, D.C.

ATLAS staff

ATLAS Institute Director John Bennett and Revi Sterling, director of graduate studies in Information and Communication Technologies for Development, will present a paper at the IEEE Global Humanitarian Technology Conference (GHTC) Oct. 30-Nov. 1. The paper is entitled “Crossing the Real Chasm in Humanitarian Technology” and it builds on Sterling’s work on practical fieldwork methods and informed consent when working with underdeveloped communities. The paper is a dialog between a computer scientist and a social scientist, and challenges the attendees to consider the conventional models for engaging with communities.

Sarah Hug of the ATLAS Assessment and Research Center presented her work at the American Society for Engineering Education this June. Her presentations included evaluation results of innovative introductory computing courses utilizing cell phone app development and a qualitative study analyzing the professional identity development of women in the computing fields. In July, she participated in the Pedagogy and Theater of the Oppressed conference, co-leading a session about the role of creativity and creative collaboration in science and scientific research. Her latest project measures the impact of professional development training on K-12 academic counselors’ promotion of IT careers with diverse students, particularly those underrepresented in computing.

Technical Reports

“Using a Digital Pen to Improve Labor Monitoring and Reinforce Birth Attendant Training”

Heather Underwood

University of Colorado at Boulder
heather.underwood@colorado.edu

ATLAS TR 2011-8-01

ABSTRACT

The importance of training and labor monitoring tools has received increased emphasis among maternal health specialists in the last decade. Existing paper-based systems for monitoring and collecting data during labor have been shown to reduce life-threatening complications in low-resource environments; however, significant barriers exist to their use in developing countries. In this paper we describe a system that enhances a common labor-monitoring tool, the partograph, using a digital pen. The digital partograph system provides real-time data feedback and reinforces birth attendant training using audio, while retaining the familiar paper-and-pen interface currently used by most healthcare workers. We are currently evaluating a prototype of this system in Kenya.

To obtain the full document, send an e-mail to vickie.stubbs@colorado.edu.
Telecom course targets development

About 20 people from Ghana, Nepal, Zambia, Iraq, Thailand, the Philippines, Nigeria, Rwanda and Pakistan participated in the United States Telecommunications Training Institute course July 11-15 in ATLAS.

The course was targeted toward telecommunications regulators, executives, and managers responsible for general management in developing international organizations.

ATLAS co-sponsored the course with the Silicon Flatirons Center for Law, Technology and Entrepreneurship.

The course, which featured presentations by telecommunications experts from CU and beyond, focused on management techniques, the telecommunications climate and operational decisions.

Presenters included Dale Hatfield of the Silicon Flatirons Center; ATLAS associate director Jill Van Matre; ATLAS master’s degree program director Revi Sterling; and ATLAS Advisory Board member Richard Green, who is the former CEO of CableLabs.

Speaker Series features wireless network expert

Marco Zennaro spoke about the future of long distance wireless links and sensor networks for development Aug. 1 as part of the ATLAS Speaker Series.

Zennaro (at left in photo at right) focuses his research on the use of information communication technology for development and is particularly interested in using wireless sensor networks in developing countries.

He is one of the authors of “Wireless Networking in the Developing World,” which has been translated into six languages, and “Science Dissemination using Open Access,” which is available in both English and Spanish.

He received his Ph.D. from the KTH-Royal Institute of Technology, Stockholm, Sweden.

The ATLAS Speaker Series is made possible by a generous donation from Idit Harel Caperton and Anat Harel.

BDW gains 18 students

Eighteen new students have signed up this fall for the Boulder Digital Works (BDW) 60-week certificate program in Digital Arts and Sciences.

BDW offers a multi-disciplinary, project-based educational certificate program designed to provide skills needed by employees and entrepreneurs in the digital communication fields.

BDW continues to have a 100% placement rate for graduates of the program. BDW’s most recent students are now working at AKQA, San Francisco; Team One, Saatchi & Saatchi, Los Angeles; EVB, San Francisco; Goodby Silverstein Partners, San Francisco; Weiden & Kennedy, Portland; Grey Partners, New York City; Ascentium, Seattle; Giam, MyLikes, San Francisco; Crocs; and Big Spaceship Brooklyn.
Hill/Safier recorded in HD

ATLAS is pursuing post-production and broadcast opportunities for the high-definition recording of California folk/rock musicians Andy Hill and Renée Safier, who were featured July 9 in two Black Box performances.

The performances were recorded using new ATLAS HD digital video cameras and a three-way live switcher. Students from ATLAS and the School of Journalism and Mass Communication gained valuable experience working alongside professionals, both in front of and behind the cameras, to produce the event.

ATLAS is exploring a partnership with Rocky Mountain PBS to develop a series to showcase similar artists and provide high-quality shows to the community.

Hill and Safier, who met in Colorado and started performing together about 20 years ago, are perhaps best known in Colorado for their Telluride Bluegrass Festival appearances, where Safier won the acoustic blues competition in 2005. The performance also featured Bruce Springsteen sideman Marty Rifkin on pedal steel and electric guitar, eTown's bassist Chris Engleman and Denver's Mike Marlier on drums.

Black Box performances scheduled for fall semester

The following Center for Media, Arts and Performance events are scheduled in the ATLAS Black Box for the fall semester:

Casanova at Twilight
7:30 p.m. Friday-Saturday, 2 p.m. Sunday
Sept. 23-25, Sept. 30-Oct. 2

An original musical theater piece written by Bill Mooney, who for 14 years was a cast member of ABC’s All My Children as well as a performer both on and off-Broadway. See the tale of Casanova’s exploits. Music is composed and conducted by Hunter Ewen, a doctoral student in CU’s College of Music. Singer/actors include baritone and CU graduate Garrett Smith as young Casanova and Leigh Holman, director of CU’s Opera Department, who plays one of Casanova’s loves.

Tickets are available at the CU Presents Box Office, located in the University Club. Phone: 303-492-8008 or email: musictix@colorado.edu.

Vantage Points
7:30 p.m. Friday-Saturday
Oct. 28-29

An original, immersive, multi-sensory exploration of abstract video and sound by artist/composer Cole Ingraham, a doctoral student. The performance includes live instrumentalists, synthesized sounds and a combination of 2D and 3D animated graphics.

Black & White
8 p.m. Friday, Nov. 4

A coming of age story told through multi-media dance, theater and video performed by choreographer Gabriel Masson in collaboration with video artist Tara Rynders. Masson is assistant professor in CU’s Department of Theatre and Dance. Rynders is an MFA student in multimedia dance. (For mature audiences.)

Striking the Match
7:30 p.m. Saturday, Nov. 5

A one-woman theater performance debut by writer/performer Beth Osnes who presents a series of original, short pieces inspired by contemporary social issues. Interactively, audience members will choose from among 20 or more original pieces, thus influencing the flow of the evening and sequence of the production. Osnes has toured her works around the world.
New course teaches programming mobile devices

ATLAS instructor Aileen Pierce, recognizing that more than a half-million applications have been created for Apple iPhones and iPads, created a new course in programming for these mobile devices this fall.

The course, called Mobile Application Development, explores the world of object-oriented programming, memory management, and human interface design. “Students will be introduced to the iOS platform to develop leading-edge mobile digital media applications,” Pierce said.

The students will program for the mobile devices using the iOS Software Developer’s Kit which includes XCode, the iOS Framework, Interface Builder and Objective-C.

The class will feature a combination of lectures, demonstrations, guest speakers and open lab sessions. Students will complete a number of projects geared toward gaining a solid proficiency in developing iPhone and iPad apps. At the end of the course, students will have the knowledge and experience to create successful iPhone and iPad apps.

Digital CCurrents gets grant

The Digital CCurrents program, which is a three-week summer workshop for Denver high school and middle school students who are largely from underrepresented minority groups, has been awarded an $8,000 grant from the CU Office for University Outreach.

Digital CCurrents students come to ATLAS and learn various aspects of digital technologies, then work on digital projects. This summer the students rebranded their Denver North High School Computer Magnet Program and redesigned the program’s Web site. The program has been renamed the North Media Arts Lab. For a video about the workshop, go to http://www.youtube.com/watch?v=vHT59bQboAE.

Students also visited with guest speakers about career opportunities in technology-related fields and took field trips to local tech-focused businesses.

The program is a partnership of ATLAS and the National Center for Women and Information Technology. To contribute to Digital CCurrents, contact Kathleen Archuleta, ATLAS director of external relations.
Adriane Bradberry, who is the design coordinator for the National Center for Women and Information Technology (NCWIT), is the recipient of the ATLAS Titan of the Quarter award. The award is given in recognition of outstanding efforts on behalf of ATLAS. Bradberry was nominated for the award for a “sustained track record of efficiency, team support, taking every project to the next level and then some, and basically raising the bar of what is expected of an NCWIT professional.”

Bradberry generates graphic designs and layout concepts for NCWIT marketing materials and print publications. She also assists with Web site maintenance. Bradberry received her master’s degree in Journalism at the Newhouse School of Syracuse University in New York and her bachelor’s in Communications at Elon University in North Carolina.

Lucy Sanders, who is CEO and co-founder of the National Center for Women and Information Technology (NCWIT) and is executive-in-residence at the ATLAS Institute, has been named a recipient of the George Norlin Award. The CU Alumni Association presents the award annually to honor alumni for distinguished lifetime career achievement and service to society. Sanders, who has a CU master’s degree in computer science, worked in research and executive positions for AT&T Bell Labs, Lucent Bell Labs and Avaya Labs for more than 20 years.

She received the award May 4 at a ceremony in the Old Main Chapel.

Stephanie Wanek returned to ATLAS as program manager

Stephanie Wanek returned to ATLAS this summer as program manager. Her role includes supporting the continued growth of the TAM program and working with current undergraduate students and alumni. She also will be organizing special projects for ATLAS.

Wanek is a former development officer who worked at ATLAS as the new building opened. Most recently, she was a research analyst at the CU Foundation.

Ruscha Cohen new ICTD adviser

Ruscha Bellefleur Cohen is the new ICTD Graduate Academic Adviser. She will assist master’s students as they navigate both their graduate studies and their practicum experience.

In her new role, she will support students with academic counseling and course selection, practicum placements and professional development.

She received her master’s degree from CU in Counseling Psychology and Counselor Education.

Adriane Bradberry is ATLAS Titan

Adriane Bradberry, who is the design coordinator for the National Center for Women and Information Technology (NCWIT), is the recipient of the ATLAS Titan of the Quarter award.

The award is given in recognition of outstanding efforts on behalf of ATLAS.

Bradberry was nominated for the award for a “sustained track record of efficiency, team support, taking every project to the next level and then some, and basically raising the bar of what is expected of an NCWIT professional.”

Bradberry generates graphic designs and layout concepts for NCWIT marketing materials and print publications. She also assists with Web site maintenance. Bradberry received her master’s degree in Journalism at the Newhouse School of Syracuse University in New York and her bachelor’s in Communications at Elon University in North Carolina.

Ruscha Bellefleur Cohen is the new ICTD Graduate Academic Adviser.

Counselors for Computing (C4C) is a four-year National Center for Women and Information Technology (NCWIT) campaign designed to equip more than a thousand school counselors across the country with the information and resources they need to advise students about paths toward computing careers.

The resources include information about different kinds of computing jobs and their merits (high salaries, stability and flexibility); why underrepresented groups should be encouraged to participate in computing; pathways for students to enter computing-related majors and careers; and access to a community of other participating counselors.

The campaign is sponsored by the Merck Foundation with support from Google and the NCWIT K-12 Alliance. For more information, go to http://www.ncwit.org/c4c.

NCWIT NOTES

C4C promotes computing

Counselors for Computing (C4C) is a four-year National Center for Women and Information Technology (NCWIT) campaign designed to equip more than a thousand school counselors across the country with the information and resources they need to advise students about paths toward computing careers.

The resources include information about different kinds of computing jobs and their merits (high salaries, stability and flexibility); why underrepresented groups should be encouraged to participate in computing; pathways for students to enter computing-related majors and careers; and access to a community of other participating counselors.

The campaign is sponsored by the Merck Foundation with support from Google and the NCWIT K-12 Alliance. For more information, go to http://www.ncwit.org/c4c.

Map shows job shortfalls

NCWIT has created an interactive map that shows the number of computer jobs available in an area and projects how many local jobs can be filled by local graduates with computing degrees.

Statewide in Colorado, for example, only 51.7% of the projected local jobs can be filled by local graduates with computing degrees. In the Boulder/Denver metropolitan area, that number is only 24.1%.

NCWIT hopes the map can be used to make the case for increased and improved computer science education at the K-12 level, increased enrollment in computing majors, and increased attraction and retention to computing jobs.

To view the map and statistics, go to http://www.ncwit.org/edjobsmap.
A new ATLAS photo exhibit explores the use of digital manipulations that combine multiple exposures to create striking images.

The 20-photo show, located in the exhibit area of the hallway west of the main lobby, was created by Bruce Henderson, who is communications director for ATLAS.

The exhibit is in two parts. One is called Boulder Planetz and depicts eight iconic Boulder locations, including the Roser ATLAS building, as individual planets. Each planet consists of from 21-24 digital photos that are stitched together to form a single panorama that is then wrapped into a spherical shape akin to a planet.

The second part is a set of 12 photos entitled “Time Expired,” all taken at an abandoned mining town located about two hours south of Las Vegas. Each image consists of three separate photos, taken at different exposures, that are combined into a single hyperreal image that looks more like a painting or drawing than a photograph.

The technique used for creating the images is called High Dynamic Range (HDR) photography. The technique has roots in mid-1990s concepts of designing graphics for games.

Henderson, a former journalism professor at CU who has taught photography and digital editing, has a master’s degree with an emphasis in journalism photography from the University of Wisconsin-Madison. He has worked as a newspaper photographer, reporter and editor.

His award-winning photography also is on display at Art Mart, located on the Boulder Downtown Mall.

The ATLAS Technology, Arts and Media (TAM) digital media certificate program and minor sequence continue to grow, with the number of students in both programs totaling 534, which is a 20% increase over a year ago.

There are 114 students who have been accepted for the minor.

There currently are about 50 students on a wait list for the Meaning of Information Technology introductory course, despite an additional section of the course being offered over the past two semesters.

The second course in the sequence, Digital Media 1, has 80 spaces available but is likely to have a wait list of about 40 students for the spring. An additional section of the course offered during the summer helped alleviate wait lists for the current semester.

Students will have an early opportunity to sign up for TAM courses during an open house scheduled for Oct. 19.
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: