The ATLAS Institute awarded its first master of science degrees in Information and Communication Technology for Development (MS-ICTD) during graduation ceremonies that were split into two parts May 10 to accommodate the friends and family of 119 graduate and undergraduate students.

Two students – Edwige Simon and Sarah Vieweg – also were awarded ATLAS Ph.D. degrees in Technology, Media and Society.

Receiving the master's degrees were Matthew Crum, Kevin McElhinney and Nicole Stephan. The master's program was created in 2010 and prepares students for ICT careers advancing people and communities in developing nations. The program includes a one-semester practicum doing fieldwork related to technology and development. (See Pages 4-5 for a story about their fieldwork.)

Fifty-six students received the ATLAS minor in Technology, Arts and Media; another 58 received ATLAS certificates in Technology, Arts and Media.

ATLAS now has graduated four Ph.D. students since the program began in 2005. Two new students are joining the program this fall (see story, Page 2), bringing the number of current Ph.D. students to 15.

Simon’s Ph.D. research explored the impact of online teaching and the role played by technology on the professional identity of higher education teachers. Her dissertation helps identify how online learning is changing teachers and the teaching profession.

A native of France, Simon is returning to work full time at the Anderson Language Technology Center at CU.

Vieweg’s Ph.D. research focused on the use of Twitter in times of mass emergencies and how this popular microblogging service can assist with understanding the “big picture” in safety-critical situations.

Vieweg has been a member of Computer Science professor Leysia Paylen’s Connectivity Lab, which does research on crisis informatics and other areas of Human-Centered Computing.

Vieweg has been hired as a project manager at Ob- long Industries in Los Angeles. Oblong has developed a spacial interface for computers that allows people to use gestures to control applications. Oblong’s founder developed the technology and debuted it publicly in the movie Minority Report.

EDWIGE SIMON: ATLAS Director John Bennett drapes a hood over Edwige Simon’s shoulders during the traditional Ph.D. hooding ceremony at the ATLAS graduation on May 10. Bennett was the chair and faculty adviser for Simon’s dissertation.

SARAH VIEWEG: Computer Science professor Leysia Paylen hoods Sarah Vieweg during the graduation ceremonies. Vieweg was a researcher in Paylen’s Connectivity Lab. Paylen also served as chair and faculty adviser for Vieweg’s Ph.D. dissertation.

More photos, Pages 18-19
Sterling receives Women of Vision award

The Anita Borg Institute for Women and Technology awarded its Women of Vision Social Impact award to Revi Sterling, director of the ATLAS master’s degree in Information and Communications Technologies for Development (ICTD), during an awards banquet May 10 in Santa Clara, Calif.

Women of Vision award winners are selected from leading women engaged in technology professions in industry, academia, NGOs or government.

Sterling was recognized for conceiving, implementing and leading programs that have had a direct, positive and lasting impact on the lives of women.

In accepting the award, Sterling talked to the audience about her definition of success.

“I am successful if I can translate human need into appropriate technology solutions. I am successful if the communities I work with get to enjoy a sustainable higher standard of living after we’ve worked together, if I can offer a way to proactively understand and respond to climate change, migration, conflict, economic insecurity and gender inequity, if I can provide access to critical information so that people who had no voice can leapfrog to having choice,” Sterling said.

As an ATLAS Ph.D. student, she pioneered the development of a new participatory community radio technology that enables women to create content for broadcasting, even if they are far from the station. Variants of this have been deployed worldwide.

As the inaugural director and co-founder of the ATLAS ICTD program, the Borg institute noted that Sterling is creating a new generation of “academic practitioners” who can create innovative technologies while solving difficult community development problems that continue to stymie the international development field.

The institute also noted that Sterling realized the need for these practitioners based on her own research and fieldwork in Africa, India and South and Central America, where she has created and deployed appropriate and sustainable education, health and livelihood programs based upon a variety of innovative networking technologies.

The audience of 800 included industry and academic professionals, college and high school women. More than 100 students attended, sponsored by technology companies and local universities.

Jennifer Chayes, distinguished scientist and managing director of Microsoft Research New England, was the Women of Vision Leadership award winner. Sarita V. Adve, a professor in the Department of Computer Science at the University of Illinois at Urbana-Champaign, received the Women of Vision Innovation award and American Express was selected as the Anita Borg Top Company for Technical Women award winner.

The Anita Borg Institute provides resources and programs to help industry, academia, and government recruit, retain, and develop women leaders in high-tech fields, resulting in higher levels of technological innovation.

Two join ATLAS Ph.D. program

Jiffer Harriman, who has an interest in music and technology, and Josephine Kilde, a native of Kenya who has an interest in technology and education, have been accepted into the ATLAS Ph.D. program in Technology, Media and Society.

A 2002 graduate in electrical engineering at CU, Harriman received a master’s degree in Music, Science and Technology in 2010 from the Center for Computer Research in Music and Acoustics at Stanford University. While there, he explored networked music, new instruments for musical expression, processing techniques as well as interactive and kinetic art.

Kilde moved to the United States in 2005 and received an Associate in Applied Science degree as an Information Technology-Network Specialist from the Chippewa Valley Technical College in Eau Claire, Wis.

She currently is finishing her Information and Communications Technologies bachelor’s degree at the University of Wisconsin-Stout. Her goal in the Ph.D. program is to study educational technologies and return to Kenya.

Theodore, Amerika to showcase recent works at Speaker Series event

Michael Theodore, director of the ATLAS Center for Media, Arts and Performance and a College of Music faculty member, and Mark Amerika, a professor of Art and Art History, will talk about their recent work as part of the ATLAS Speaker Series at 4 p.m. Monday, June 25, in the Cofrin Auditorium.

A tour of Field Theory, Theodore’s new exhibit at the CU Art Museum, will follow the presentations. Field Theory creates dynamic fields of color, light and sound inspired by the natural world.

The Speaker Series is made possible by a generous donation by Idit Harel Caperton and Anat Harel.
In the field: Master’s students

PROGRAM DIRECTOR: Revi Sterling, director of the ATLAS master’s degree in Information and Communication Technology for Development, introduces the students and their projects during the April 20 program.

NEPAL ARTISANS: Nicole Stephan talks about her free trade artisan crafts assistance project in and around Kathmandu.

SCALING TOWERS: Matt Crum worked on technology development in Kenya and also was sent to the world-renowned Petzl climbing school to learn how to scale antenna towers safely.

MONITORING SOLAR POWER: Kevin McElhinney talks about his open source Web-based solar photovoltaic monitoring platform he set up in Laschobas, Haiti.

ENHANCING EDUCATION: Alexandra Morgan explains her educational technology work in Haiti.
present their practicum work

HAITI PROJECT: Kevin McElhinney, left, works with Bruce Baikie of Green WiFi on a solar energy monitoring system that powers laptops in Laschobas, Haiti. Baikie also came to Boulder in September as part of the ATLAS Speaker Series.

ICT for development projects span the globe

Four students presented their practicum field work on April 20 as part of the requirements for the ATLAS master’s degree in Information and Communication Technology for Development.

The degree prepares students for careers in the use of Information and Communication Technology (ICT) to advance people and communities in developing nations and underserved or impoverished regions.

The students and their practicum projects are:

• Kevin McElhinney created a Web-based solar photovoltaic monitoring platform to track solar input and usage for computer labs in Laschobas, Haiti, an area that received a large donation of One Laptop Per Child laptops after the earthquake. His sponsor was GreenWiFi, Haiti.

• Alexandra Morgan contributed her knowledge of educational technology and assessment to the Haiti Connected Schools project. Her practicum sponsor is World Vision Haiti.

• Matt Crum worked with his sponsoring company Inveneo, a leading technology integrator in the ICTD field. One of his trips took him to Dadaab, the world’s largest refugee camp, in Kenya.

• Nicole Stephan worked in and around Kathmandu with one of the largest production houses in Nepal, where free trade native artisan crafts and art are sourced and created. She studied the supply chain and buyers around the world and attempted to streamline processes. Her sponsor was the Association for Craft Producers, Nepal.

A video of their presentations is on the ATLAS-CUBoulder YouTube channel at http://youtu.be/WEcBwsQBZg0.

PROJECTS IN NEPAL AND KENYA: Ceramic pots and bowls (above) are lined up in rows in Bhaktapur, Nepal, where ATLAS master’s student Nicole Stephan worked on streamlining the supply chain and buying processes. In the photo at left, Matt Crum (right) talks about wire crimping techniques with a Dadaab, Kenya, engineer.

MILESTONE: Revi Sterling, director of the ATLAS ICTD master’s degree program, was presented with flowers from students and ATLAS Director John Bennett in honor of the first group of master’s students to complete the practicum portion of the program, which began in August 2010. From left to right are Nicole Stephan, Matt Crum, Sterling, Kevin McElhinney and Alexandra Morgan.
ATLAS Ph.D. student Heather Underwood received a first-place ranking in the student research competition for her paper “PartoPen: Enhancing the Partograph with Digital Pen Technology” at the CHI 2012 Conference on Human Factors in Computing Systems held May 5-10 in Austin, Texas.

Underwood also has received an 18-month Bill and Melinda Gates Grand Challenge Award of $100,000. The award will support two pilot studies using the PartoPen in the summer of 2012, and will facilitate expanding the project to more health clinics in Kenya during 2013.

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. The pen interacts with a standard health monitoring paper form called a Partograph, which tracks and monitors various stages of labor and birth.

The CHI research paper was based on PartoPen research Underwood conducted over spring break in Kenya.

There were 30 entries in the CHI research competition.

CU had a number of students participating in the CHI conference competitions. Several projects grew out of CU Computer Science professor Leysia Paylen’s design studio class. ATLAS Ph.D. student Joanne White and computer science students Mario Barrenechea and Joshua Barron placed fourth out of 55 teams in the Student Design Competition for No Place Like Home, a socially networked Web and mobile platform that facilitates reunification of pets with family members following disaster events.

Kate Starbird has been appointed an assistant professor in the Human Centered Design and Engineering department at the University of Washington of Information Ethics, The Ethics of Secrecy.

“Green Up Colorado,” a PBS television program that takes a look at Colorado’s local food movement, alternative energy projects, and a range of recycling and green jobs that aired April 21 and was hosted by ATLAS Ph.D. student Leslie Dodson, has won a CINE Golden Eagle Award in the Environment and Natural Science Category. The CINE Golden Eagle Award has been recognized as a mark of excellence throughout the film and television industry for over 50 years.

Leslie Dodson will be spending the summer studying Argan oil production in the Ait Baamrane region of Morocco. Her research focuses on technology-based opportunities for women involved in natural resource management and small enterprise in relatively remote areas. Expansion in demand for Argan oil coincides with efforts by members of the Amazigh community to preserve their traditional practices and ensure environmental sustainability of the natural resource.

Kara Behnke will do a poster presentation at the Foundations of Digital Games Conference May 29-June 1 in Raleigh, N.C. She also plans to attend the Games for Change Festival June 18-20 in New York.

Calvin Pohawpatchoko and students who participated in the CU Native Alliance Computer Build project demonstrated some of their work to elected officials on April 25 in Washington, D.C. The main purpose for the demonstration was to show how students are taught to build computers and how the program creates interest for attending universities. The second purpose was to seek support for continuation of the program.
BDW students launch businesses

Five teams of students from BDW’s Startup class publicly launched their new businesses at the BDW Startup Pitchfest on May 2 in ATLAS.

BDW’s Startup class takes students through the conception, build and launch of an original product or service within a single semester. It is taught by Robert Reich, who is an entrepreneur, Boulder/Denver New Tech Meetup founder and moderator, and founder of OpenSpace Store and One Riot.

BDW (formerly known as Boulder Digital Works) is a post-digital studio within the ATLAS Institute.

It offers multi-disciplinary, project-based graduate programs designed to provide skills needed by employees and entrepreneurs in the digital communication fields. It also offers intensive immersion programs in digital fluency for working professionals and other programs and workshops.

On May 2, the Startup teams presented the concepts behind their businesses, talked about markets and marketing, and explained why they thought their business would be successful.

A panel of judges gave advice and opinions about which business they favored.

The business are:

Fatbot is robot toy that talks to the Internet and constructs an augmented reality environment that can be viewed through a smart phone. (http://www.kickstarter.com/projects/1777366112/fatbot-the-little-robot-whos-building-a-big-world)

GoodShuffle.com uses the Web to help people in neighborhoods or larger communities rent tools from each other. (http://www.GoodShuffle.com/)

The International Candy Company allows people to buy candy from the global marketplace using a peer-to-peer system over the Web. (http://intlcandy.co/)

Moderob Labs (boredom spelled backward) is creating a mobile social gaming application for smart phones called Road Trip Bonanza, which allows people to play road-trip games such as “I Spy” with a modern technology twist. (http://moderoblabs.com/)

Raque is an online shopping site that helps shoppers make decisions based on their social networks. (http://raque.it/)

BDW MOVES: ATLAS associate director Jill Van Matre and BDW executive director David Slayden tour the new BDW building spaces shortly before move-in day in April. BDW moved into raw, industrial-styled spaces east of Boulder in April after spending its first two years in downtown Boulder. The concrete and brick structure, which features exposed pipes and bright, sunlit spaces, is located in the former Sutherland Lumber Co. at 3390 Valmont Road.
Fall speakers from academia, industry, arts

Distinguished visitors from academia, industry and the arts have been scheduled for the fall semester as part of the ATLAS Speakers Series.

The series, made possible by a generous donation by Idit Harel Caperton and Anat Harel, is part of the ATLAS Institute’s mission to explore information and communication technologies and their effect on society.

She is committed to improving the entrepreneurial ecosystem in Colorado through a range of leadership and advocacy roles. Glaros will talk about the importance of innovation, fearlessness, leadership and entrepreneurship and why/why to think about it while still a student.

Walter Scott
Sept. 17
Walter S. Scott is founder, CTO and executive vice president of DigitalGlobe, which is a geospatial information services provider with commercial access to a rapidly expanding supply of high-quality earth imagery and geospatial information products.

Scott will talk about DigitalGlobe and its operation of a three-satellite imaging constellation, including hi-resolution images of the Earth.

Matthew Kirschenbaum
Oct. 1
Matthew G. Kirschenbaum is a professor in the English Department at the University of Maryland and a director of the Maryland Institute for Technology in the Humanities.

His talk will center on his upcoming book, “Track Changes: A Literary History of Word Processing,” which looks at the impact of digital media on literary composition, publishing and archival preservation. Kirschenbaum will talk about how people usually think of print and digital as rival forms of media instead of elements of a process.

The event is a collaboration of the ATLAS Institute, Department of English, ICMT Initiative, University Libraries ScriptaLab and Friends of the Libraries.

Gregory Lastowka
Oct. 8
Greg Lastowka is a professor at Rutgers University Law School and the author of “Virtual Justice: The New Laws of Online Worlds.”

Certain legal questions are emerging as people increasingly use virtual platforms to form social connections, to make money and engage in creative activities.

Lastowka’s presentation will examine the history and status quo of virtual law, touching on the evolving law of virtual property, computer crime, copyright, gaming and electronic contracting, and he will highlight key legal policy questions.

Nicholas Carr
Oct. 22
Nicholas Carr, a Boulder-based author of the Pulitzer Prize-nominated bestseller “The Shallows: What the Internet is Doing to Our Brains,” will examine how the Web and other digital media are influencing the way people think, read and communicate.

Carr argues that every medium carries an intellectual ethic that emphasizes certain ways of thinking and de-emphasizes others. He will talk about how the Internet encourages the fast-paced collection of small bits of information but discourages attentive, contemplative habits that are essential to conceptual and critical thinking.

Yasmin B. Kafai
Nov. 5
Yasmin Kafai is a professor of learning and instruction at the UCLA Graduate School of Education & Information Studies. She was one of the first researchers to establish the field of game studies with her work on children’s learning as designers and players of educational software and games.

Kafai directed the research for the report “Under the Microscope: A Decade of Gender Equity Interventions in the Sciences,” and she participated in the National Commission on Gender, Technology and Teaching that authored “Tech-Savvy Girls: Educating Girls in the Computer Age.”

Composer Subotnick part of spring Speaker Series

Morton Subotnick, an international performer, composer and an iconic figure in the field of electronic music, discussed the interaction between analog and digital technology, the electronic sequencer and lighting design used in performance during an ATLAS Speaker Series event on April 26 in the Black Box.

Subotnick also presented an overview of the technology behind Silver Apples of the Moon, his pioneering work, which was performed that evening at ATLAS as part of the Communikey Festival of Electronic Arts.

The Speaker Series is funded by Idit Harel Caperton and Anat Harel Caperton; the performance was made possible through the Roser Visiting Guest Grant.

FAMED COMPOSER: A video of Morton Subotnick’s Speakers Series presentation is at http://youtu.be/3EdmRcRGbL0.
SPRING SPEAKERS: The mix of experts who gave presentations as part of the ATLAS Speakers Series during the spring semester included (clockwise from left) Mark Gross, a professor of computational design at Carnegie Mellon University’s School of Architecture and a former CU professor who discussed design, creativity and technology; Eric Rasmussen, a clinical physician and research professor for environmental security and global medicine at San Diego State University who spoke about the impact of increasing populations; Mark Maxham, an engineer and software manager at Pacific Biosciences who led the software team that developed DNA sequencing technology; and Andrew A. Chien, a computer science professor at the University of Chicago who spoke about how the end of Moore’s law impacts innovation. Videos of each presentation are available at http://www.youtube.com/user/ATLASCUBOULDER. The Speakers Series is made possible by a generous donation by Idit Harel Caperton and Anat Harel.
Creating Identity focuses on concert venue

Students in Kathie Broyles’ Creating Identity course had the opportunity to present real-world solutions for transforming the concert experience to the representatives of the 1st Bank Center, an entertainment venue located in Broomfield.

The students presented their ideas to Chuck Morris, a well-known Colorado music promoter who is president and CEO of the Rocky Mountain Region of AEG Live, a national entertainment and music promotion operation.

Morris promotes concerts and other entertainment events and operates several concert venues including 1st Bank Center. Together with colleague Ann Hack, they talked to the students about the marketing challenges, realities and subtleties of producing and promoting concerts as well as operating a concert venue.

At the end of the semester, teams of students presented their 1st Bank Center entertainment venue ideas to Morris.

Broyles, who is an ATLAS Advisory Board member and a former senior vice president and creative director of CBS Marketing Group, CBS network, hosted a number of industry expert speakers in her course, including:

- Art Streiber, an advertising and editorial photographer who has shot numerous covers and features for Vanity Fair, Wired, Town & Country and other nationally-known publications. He discussed his background, career, building a clientele and the balance of preparation and flexibility necessary for high-profile, high-pressure assignments.

- Noel Franus, VP and Experience Director at ad agency Crispin Porter + Bogusky, is a brand strategist and multidisciplinary design thinker who focuses on brands, experiences and sound. He discussed the customer/user experience, sound design and integrating the user experience with the larger context of a brand’s story. He writes regularly about sonic branding and identity.

- Tony Valenzuela, who was recently contracted by Google to produce a weekly dramatic Web series in collaboration with the creator of the popular television show CSI. Valenzuela’s career includes accomplishments in the music, advertising and television industries. The series is a mixture of horror, science fiction and suspense. It will be hosted on BlackBoxTV, a video program site created by Valenzuela, at http://www.youtube.com/blackboxtv.

Broyles has more than 25 years of experience in the entertainment advertising and promotion business. She has created successful and award-winning campaigns in all aspects of entertainment – music, movies and television – across all platforms.

Before joining CBS, she ran her own boutique agency where her clients included Disney, Warner Bros, Sony, 20th Century Fox, DreamWorks, Fox Television, The WB, E! and HBO.