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Five questions for Noah Finkelstein[1]

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As a "faculty brat," Noah Finkelstein knew he would become an educator, but he didn't realize his current work "blending content identity and educational identity" existed. He calls his route to the University of Colorado Boulder a "circuitous" one, but each step prepared him to be where he is today: professor of physics, a principal investigator of the Physics Education Research group and a director of the Center for STEM Learning.

"Not only am I trying to build spaces and places for people to engage in educational research, practice and transformation, but I'm a product of earlier versions of such efforts," Finkelstein says.

After earning an undergraduate degree in math at Yale, he spent time working at Ford Aerospace, then worked in a renowned international research lab on learning and development (directed by an early mentor and family friend) that ran many of the after-school programs he had attended as a child. There he studied the formation of communities over pre-Internet computer networks and also was "the tech guy" who supported the out-of-school programs run by the lab.

At graduate school at Princeton, he specialized in laser physics. He won a Postdoctoral Fellowship and worked at the University of California (San Diego and Berkeley) where he studied how people learn physics. He also taught high school students and "demonstrated that inner-city kids could learn as much or more than the students I had been teaching in college intro physics classes."

He came to CU in 2003; his work toward educational transformation and research was ahead of the current national push that is receiving attention.

"The more time I've spent trying to study what happens in classroom and transform and improve the opportunities we provide students, the more I have realized it is bound by policies and politics within the institution and state and federal levels. And I've been increasingly getting involved in advocating for change in those areas," he says. In 2010, he testified to Congress about STEM (science, technology, engineering, mathematics) education, and based on his testimony, worked on legislation that supported new programs and increased research fellowship money.

"If we as educators don't engage in defining, externalizing and sharing the worth of our disciplines, someone else will," Finkelstein says. "We recognize that that is our charge and mission. If we do that, we'll be on the leading edge of what happens and we will serve as model for other institutions."

1. Is the way students learn physics different from the way they learn subjects in non-science fields?

There are similarities and differences. Learning is an incredibly complex issue, but there are some general principles involved. Actively engaging students is essential. Learners must be active intellectually, physically, psychologically and cognitively. Education is not simply a matter of information delivery; it's a form of socialization, of bringing students into our culture. That's the grand challenge. We can demonstrate with consistency and reliability that when students are engaged and challenged, when they interact with each other, they learn.

So, for any field, actively involving students is key, but each discipline builds on what students already know and coordinates a varied set of skills, tools and habits of mind across a particular subject domain. These are essential forms of educational practice that we've gotten very good at doing in many fields at CU. For instance, in physics, our research has shown that students in our intro physics classes, which incorporate active engagement practices, perform two to three times better than the national average and better than they have in traditional lecture classes. I'm not dismissing the lecture; it's one tool out of many. But it shouldn't be the only tool we employ.

2. How has the Physics Education Research Group at Colorado (PER@C) moved to advance teaching and learning?

The group formed around 2003 and perhaps that is why I was hired. Perhaps I was a catalyst, much as a rough pebble stimulates other activity that results in a fine pearl. We take a deep disciplinary look at the nature of the conditions that will promote or inhibit learning and student engagement in physics.

Some of the research looks at PhET Interactive Simulations, which can replace real material equipment with computer simulations. We measure when and how students learn better with these simulations and simultaneously study how to build better simulations. We also have measured the impacts of using personal response systems (or clickers) on learning and educational environments.

We've done important work on inclusion and access and gender gaps in physics. In physics, males typically perform better, get better grades, report more expert-like attitudes, and are more likely to be retained after a freshman physics class than women in our environment. We've studied that and documented some of why it happens and we have promising interventions that we've developed in collaboration with social psychologists. In one intervention we have found we can address the impacts of stereotype – so, normalizing for student background preparation, we can shift the dominant grade of women from roughly the C-range to the B-range through two, 15-minute writing exercises. At the same time, we don't degrade the performance of men.

We've also done tremendous work creating informal educational environments, much like those I was brought up in, and we find that undergrad and grad students who teach in these environments learn physics (as do the kids). Our university students also learn how to communicate more effectively with the public, which is essential for a scientist today.

3. You also are involved with the Center for STEM Learning. What are some of the center's goals and accomplishments?

I'm one of three directors at the center, which works to promote education as a scholarly and professional activity for faculty, students and staff. We are building on other campus-wide efforts that have been going on for years. We want to create a campus-wide identity and object around educational transformation and STEM. We see ourselves as a catalyst, a connector, and a resource for students, faculty and staff.

I like to say that we're like the BASF or 3M of STEM education: We don't make STEM education, we make STEM education better. There are roughly 75 programs involved with STEM education on campus. We honor the identity and successes they've made and we support those programs. We also incubate new programs and coordinate a network among the programs to enhance capacity, sustainability, and the impact of those programs.

At CU, we have been successful at recruiting and supporting students and improving the quality of education we provide them. We still have a ways to go, but we have made remarkable strides in supporting students from underrepresented populations, for instance, in our engineering efforts through the BOLD Center. Data just coming out demonstrates that we have students from non-dominant communities enrolled in our programs who might not otherwise have come to campus. They are achieving at levels as high as any other engineering majors, which is tremendous. Another effort on campus, the Learning Assistant program, has also been successful at promoting improvements and access for STEM education and for increasing the number of STEM students going into K-12 teaching.

How we go about bringing more students to STEM fields is critical. We don't simply want numbers; we want quality and diversity and equity for our students. We want to empower our students. We have data to demonstrate that students are learning more than they used to and are enjoying a higher-quality educational experience. Now the challenge is to move our research-based practices into wide-scale practice.

In just about any educational environment, we know what we need to do, but we are suffering from understanding how to move this research into practice, how to sustain and scale educational transformations. We have to put models into wide-scale practice and sustain our successes. One way to do that is to support faculty who want to engage. In fact, we're pleased to be one of the Association of American Universities' lead demonstration sites nationally that do just this in the coming years. We are probably the most engaged faculty of any of the institutions where I have spent time, and I've been at seven different universities. Faculty must be supported so that we can create the university we want to participate in; so that we are the ones leading how we're moving into the 21st century as an education institute of the future rather than carrying over historic polices or simply reacting to outside pressures.

4. In September, an annual symposium will look at STEM education. What do you hope to achieve with the event?

The Fifth Annual Symposium on STEM Education is Sept. 23 and we will be showcasing and celebrating a wide variety of education initiatives. This is an opportunity for people to talk about successes and to incubate new forms of practice. We'll have poster sessions and celebrate signature programs on campus – the Learning Assist program, National Center for Women in Information, ITLL (Integrated Teaching and Learning Program and Laboratory), the General Engineering Plus CU Teach degree program. We also anticipate remarks by Colorado's Lt. Gov. Joe Garcia.

It's a free event and allows time for people to get together and have that water cooler chat. (For more information and to register visit <u>www.colorado.edu/csl[</u>3])

5. Outside of education, what are some favorite activities you enjoy?

I love Boulder. When I first moved here, I went around asking people, "Why did you come to Boulder?" and they said, "Are you kidding me? Look at this place." They told me they'd flip burgers or do whatever it took to live here. So, like the others who live here, I love the outdoors – hiking, biking, skiing. I will often be found at the St. Julien on Friday nights for salsa or samba dancing. I'm also active in the Adventure Rabbi program, which celebrates Passover by camping in the desert along the Colorado River in Moab, Utah.

One of my favorite activities is sitting on my stoop with friends, trying to make sense of the world around us. I have a front porch and my dining table is outside looking out into the community, not sequestered in the back. I'm about participating in community and collaboration. My greatest successes are the communities I get to participate in and help shape and build, whether academic or STEM or the community of my friends. It's tremendously rewarding.

CU researchers attract \$774 million in sponsored funding[4]

Faculty at the University of Colorado attracted research awards totaling \$774,079,158 during the 2012-13 fiscal year, based on preliminary figures.

That investment in CU maintains the university's place as one of the top research institutions in the country, the total ranking as fourth-highest in CU history. The amount slipped 5.6 percent from the previous year, reflecting an increasingly competitive arena shaped in part by tightening federal budgets.

The reduction in research funding may be here for a while, says Richard Traystman, Ph.D., vice chancellor for research for the CU Anschutz Medical Campus and CU Denver, because there is less money and more competition for grants.

Overall, however, Traystman noted that the federal government provides billions of dollars in research support nationally, \$31 billion from the National Institutes of Health alone. While funding is reduced, he says, "it's not wiped out and my optimism is that we have the opportunity to receive our fair share of that to continue the important work of research."

With an eye on the horizon, CU President Bruce D. Benson recently initiated an effort to enhance CU's research operations and infrastructure, as well as to diversify the entities it partners with, all with the intent of increasing revenue from one of CU's most significant funding streams.

"We have innovative research faculty and we not only need to facilitate their great work by having an efficient and effective research infrastructure, we also need to find new partners to augment what we already do for federal agencies," Benson said. "I have every confidence that we can substantially increase the amount of research funding we attract."

Fiscal year 2012-13 sponsored research funding across CU, broken down by campus:

University of Colorado Boulder, \$351.9 million, including a five-year, \$9.2 million award from the U.S. Department of Energy. A team led by CU-Boulder is researching how to modify E. coli to produce biofuels such as gasoline. The researchers hope to engineer the production of ethylene and isobutanol, two compounds that can be converted into gasoline among other chemicals. University of Colorado Colorado Springs, \$7.8 million, including a four-year, \$550,000 grant from the National Science Foundation to fund about 30 scholarships annually for past and current military service members interested in pursuing degrees in science, technology, engineering or mathematics. UCCS is the one CU campus that saw research awards increase this year. University of Colorado Denver, \$19.1 million, including a \$300,000 commitment from the Surplus Lines Association of Colorado for the Risk Management and Insurance program at the CU Denver Business School. The gift will endow a scholarship fund and underwrite an international Risk Management and Insurance travel course that will help the program develop students who will graduate prepared to join the insurance industry workforce. University of Colorado Anschutz Medical Campus, \$395.2 million, including an \$11 million grant by the Bill & Melinda Gates Foundation supporting research to normalize early growth of children of mothers in poor communities with high rates of early growth retardation. Sponsored research funding from federal, state and local agencies targets specific projects to advance research in laboratories and in the field. Research funding also helps pay for research-related capital improvements, scientific equipment, travel and salaries for research and support staff and student assistantships. CU cannot divert these dollars to fund non-research-related expenses such as utilities, compensation, student financial aid or grounds maintenance.

Much sponsored research funding is directed to departments and researchers with unique expertise, such as biotechnology and aerospace, which stimulates industry.

Via the CU Technology Transfer Office, CU research commercialization has led to the formation of 132 companies since 1994; eight start-up companies were formed in fiscal year 2012-13.

LinkedIn launches university pages[5]

[6]

LinkedIn, the world's largest professional network with 225 million members in over 200 countries and territories, has launched new university pages for higher education institutions, including <u>CU-Boulder</u>[7], <u>UCCS</u>[8] and <u>CU Denver</u>[9]. LinkedIn users with connections to CU automatically "follow" these new pages and receive updates in their home feed.

Response to the new pages has been highly positive. The CU-Boulder university page, managed by Matt Duncan, was highlighted by LinkedIn during the launch and has been credited as an example of best practices.

The University of Colorado, which also is joining with LinkedIn for a pilot program connecting alumni and building greater networking opportunities, was one of several institutions across the globe asked to help frame the pages through confidential beta testing. This allowed the three campus pages to be populated before the launch. In return, CU provided LinkedIn constructive tips and requests to make the pages user-friendly and relevant to audiences. A CU Anschutz Medical Campus page also is being developed.

University pages give schools a single place to build their brand and connect with key audiences such as current and prospective students, alumni and parents. Pages feature targeted communication tools to raise visibility, leverage data unique to specific groups, build campus community engagement and to gather insights on alumni career paths. University pages are a hub or a "default" destination on LinkedIn for educational institutions.

Beginning Sept. 12, high school students will be given access to LinkedIn university pages, a valuable tool for students making decisions about where to attend college. Students will be able to explore schools worldwide, greatly expand their understanding of the careers available, and get a head start on building on- and off-campus connections. <u>Read</u> more in this LinkedIn blog.[10]

The existing CU company pages and subgroups will remain the same. LinkedIn envisions the company pages will give

schools a way to build their employment brand, attract future employees and build relationships with business partners. <u>University of Colorado[11]University of Colorado Boulder[12]University of Colorado Denver[13]University of Colorado</u> <u>Anschutz Medical Campus[14]</u>

Brief medical visit led to lasting lifestyle changes[15]

Dubois

Eddy Dubois saved his own life on Friday, Oct. 25, 2012, when he stopped in for a long-overdue health screening from his health plan.

"Contact your physician immediately," read a form from the test administrators, who told him he had a serious arrhythmia, rapidly shifting blood pressure and high cholesterol. Dubois didn't hesitate: He called his doctor, who scheduled a next-day appointment.

That's the day Dubois took control of his health. As the seemingly healthy 57-year-old underwent a comprehensive blood workup, he began connecting the dots between his lifestyle choices and the consequences on his body. Sure, he was an avid bicyclist who enjoyed the daily 2-mile ride to his job at the University of Colorado Boulder's Distribution Services office, where he's manager of Materiel Management. But he had gotten sloppy with his diet, eating excessive amounts of cheese and meat. His stress levels were through the roof. When he also considered his genetic predisposition for cardiopulmonary problems, Dubois knew he needed to make significant changes. [17]

Fall biometric screenings

begin this monthCU Health Plan members and their spouses/partners who also are on the plan may participate in Be Colorado's fall biometric health screenings, Sept. 24-Nov. 7, on all four CU campuses, and at system administration, 1800 Grant St., Denver. All tests — including blood, cholesterol and weight, as well as flu shots — are free and private.For the full screening schedule, and to register, visit <u>www.BeColorado.org</u>[18].

"The whole strategy I worked out with my physician was that I wanted to do anything to avoid prescription medication," says Dubois, now 58. "And I'm not on any prescription medication — never was."

Instead, Dubois committed to a full vegan diet, effectively cutting out animal products. He took on the new diet with passion. He became more mindful of his food purchases and the meals he prepared.

Summer arrived. His health had improved. He followed up with his doctor. His bike rides continued. And then a tragic reminder of the importance of all his efforts hit: Dubois' 53-year-old brother, who also had recently committed to improving his health — died from a massive heart attack.

"It was yet another reminder. It reinforces that I am considering this a complete lifestyle and behavior change," Dubois says. "If I continued after October, I may have preceded him in his demise."

Dubois' other strategies to combat health problems:

Get regular health check-ups: If you're a CU Health Plan participant, join Dubois this fall by taking advantage of the plan's free biometric screenings. Dubois also recommends a home blood pressure monitor to track your levels and ensure you're stable. **Manage stress:** Take advantage of employer-provided programs, such as the CU-Boulder Faculty and Staff Employee Assistance Program. **Engage in physical activity:** Dubois exercises at least five days a week, including bike rides to work and workouts at his local gym. **Have reasonable expectations:** "I realize I can't become 100 percent vegan without going manic," Dubois says. He understands the occasional slip-up, including when friends offer him food outside his regular diet. But he makes a conscious effort to favor healthy choices. "If some animal products get into my daily life, I'll accept them."

Read food labels: Salt and eggs are just two ingredients Dubois has tried to eliminate from his diet to keep his cholesterol down. He has become a voracious reader of food labels, opening his eyes to how frequently these and other undesirable ingredients appear in foods. **Seek out healthy alternatives and supplements:** Dubois recommends

products such as almond cheese, almond milk and coconut milk. He also takes an Omega 3-6-9 vegetable-based supplement.

Campus growth stresses parking capacity[19]

Campus parking lots were near capacity the first week of classes. Photo by Jeff Foster

Record student enrollment brought a record number of cars to campus last week.

Jim Spice, executive director, Parking and Transportation Services, said the university's 5,195 parking spaces were mostly occupied Monday through Thursday. The peak demand occurred at approximately 10 a.m. each day. Parking Services staff members helped some students to park along roadways in lot 15 near Four Diamonds as a temporary measure the afternoon of Aug. 28.

Spice anticipated parking becoming more difficult this week when the city of Colorado Springs implements parking restrictions in the Cragmor neighborhood south of campus. In coming months, street parking in the area near University Hall on the campus' east side also will be restricted by the city.

As a contingency if lots overflow, Parking and Transportation Services will allow students, faculty and staff to park at the Freedom Financial Expo Center, 3650 N. Nevada, and ride a free shuttle to main campus.

In response to neighborhood complaints, the city will prohibit on-street parking from 8 a.m. to 6 p.m. Monday through Friday in the Cragmor neighborhood. Property owners will receive two permits per home that allow on-street parking. For more information about the parking restrictions, please visit <u>http://www.springsgov.com/Page.aspx?NavID=4971</u> [21]

In anticipation of the Cragmor restrictions, Parking and Transportation Services added an additional shuttle bus and expanded shuttle operating hours. Shuttles now run every five to 20 minutes from 6:40 a.m. to 10:35 p.m.

Spice encouraged faculty, staff and students to take advantage of shuttles, to carpool, or ride city buses to campus in an effort to reduce campus parking problems. Individuals who park in the Cragmor neighborhood in violation of city ordinances may face fines of \$85 per violation.

HUB permits, which allow parking on main campus, are sold out with a 400 person wait list, Spice said. N permits, which allow campus community members to park at University Hall anytime and after 4:15 p.m. Monday through Thursday (all day Friday) on main campus are still available. Single day permits are also available. For more information about parking options, please visit http://www.uccs.edu/pts/[22]

A new, 1,227 parking garage on the west side of campus near the intersection of Stanton Road and Austin Bluffs is under construction and should be completed by March 2014.

<u>\$6 million CU-Boulder instrument to fly Friday on NASA mission to moon[23]</u>

A team of CU-Boulder faculty and students designed and built an instrument for NASA's 2013 LADEE mission to the moon known as the the Lunar Dust Experiment, or LDEX, to study the behavior of moon dust and how it is affected by ultraviolet sunlight. Images courtesy NASA.

A \$6 million University of Colorado Boulder instrument designed to study the behavior of lunar dust will be riding on a

NASA mission to the moon now slated for launch on Friday, from the agency's Wallops Flight Facility in Virginia.

The mission, known as the Lunar Atmosphere and Dust Environment Explorer, or LADEE, will orbit the moon to better understand its tenuous atmosphere and whether dust particles are being lofted high off its surface. The \$280 million LADEE mission -- designed, developed, integrated and tested at NASA's AMES Research Center in Moffett Field, Calif. -- will take about a month to reach the moon and another month to enter the proper elliptical orbit and to commission the instruments. A 100-day science effort will follow.

"We are ready and excited for launch," said CU-Boulder physics Professor Mihaly Horanyi of the Laboratory for Atmospheric and Space Physics, principal investigator for the Lunar Dust Experiment, or LDEX. "We think our instrument can help answer some important questions related to the presence and transport of dust in the lunar atmosphere."

One unanswered question since the days of the Apollo program is why astronauts saw a pre-sunrise glow above the lunar horizon, said Horanyi, who directs LASP's Colorado Center for Lunar Dust and Atmospheric Studies. "The glow has been suggested to be caused by dust particles that were electrically charged by solar ultraviolet light, causing them to lift off from the moon's surface."

[25]

About the size of a small toaster oven, the LDEX instrument will be able to chart the existence, size and individual velocities of tiny dust particles as small as 0.6 micron in diameter. For comparison, a standard sheet of paper is about 100 microns thick. A collision between a dust particle and a hemisphere-shaped target on LDEX generates a unique electrical signal inside the instrument to allow scientists to detect individual particles, Horanyi said.

Horanyi said clouds of dust specks seemingly observed by astronauts hovering over the moon likely weren't clouds at all. "If you watch a cement truck on the highway, it seems to be carrying a dust cloud along with it. But what is actually happening is that every speck of dirt coming off the truck is falling onto the highway," he said.

"The specks have very short lifespans, and the cloud that appears to surround the truck is actually a continual rain of dust from the vehicle to the pavement," he said. "Similarly, the smallest lunar dust particles could also continually lift off and fall back onto the surface."

Knowing more about the behavior of lunar dust could be of use for future human expeditions to the moon, including potential colonization efforts. Learning more about lunar dust also might help scientists better understand dust on other moons in the solar system -- like Phobos and Deimos that orbit Mars – that have been suggested by some as possible initial landing posts for crewed missions headed to the Red Planet.

LADEE also is carrying an ultraviolet and visible light spectrometer, a neutral mass spectrometer and a lunar laser communications demonstration.

Astronauts walking on the moon sank into a shallow layer of dust, thought to be a product of millions of years of meteoric and interstellar particle bombardment, he said. "The beauty of physics is that we believe the same processes occur throughout the universe," he said. "What we see on the moon may well apply to Mercury, Phobos, Deimos or asteroids, which all have very tenuous atmospheres."

When the LADEE spacecraft is inserted into an elliptical orbit, its closest approach will be less than 20 miles from the lunar surface. "The closer we can get to the surface the better," he said.

"This is a very exciting mission that will answer an almost 50-year-old question in space science," said CU-Boulder graduate student Jamey Szalay, who is writing data analysis software for the mission that will allow the team to analyze science results immediately after data is received from the spacecraft. "Given the convenient duration of the mission and promising science return, I'm very fortunate to be a part of the science team -- it's a dream project for any graduate student in space sciences to be working on."

Horanyi also is the principal investigator on CU-Boulder's Student Dust Counter, a simpler instrument than LDEX

flying on NASA's New Horizons mission that was launched in 2006 to explore Pluto and the Kuiper Belt, a massive region beyond the planets containing icy objects left over from the formation of the solar system. The Student Dust Counter was designed, built, tested and operated entirely by students, primarily undergraduates, at LASP and has been collecting data for the past seven years. New Horizons is now more than 2.5 billion miles from Earth and will arrive at Pluto in two years.

CU-Boulder researcher David James, who now is working on LDEX, got his start helping to build SDC. "Although I was a student in a lab back then, it was almost like working in the private sector," said James, who eventually received his doctorate from CU-Boulder. "We were building an instrument that was going to Pluto. It was an amazing experience with huge responsibilities, it pushed us to do our best, and it definitely shaped who I am today."

The LDEX instrument, as well as many previous LASP instruments launched into space since the 1970s, will carry a laser engraving of the CU mascot, Ralphie the Buffalo, as well as the names of all university people who participated in the project, from students and scientists to engineers and administrative support staff. "It's like adding a touch of history to the mission, perhaps for good luck and pride," Horanyi said. "After all, this is the University of Colorado."

FAST ceramics to develop low energy, low temp ceramics manufacturing process[26]

[27]

<u>FAST Ceramics</u>[28] and the University of Colorado have completed an exclusive option agreement to allow the company to develop a faster, energy-efficient technique for manufacturing the ceramic materials used in aerospace, medical implants, military defense armor and a wide variety of technical applications, in addition to traditional ceramics like tableware and architectural tiles.

Ceramic materials are produced by sintering: solidifying ceramic powders at high temperatures in a process that is extremely energy intensive. However, the technique developed by a research group at CU's Boulder campus works by applying an electrical field during the sintering process, which then requires significantly less energy and lower temperatures. The process is called Field-Assisted Sintering Technology, or FAST. For example, stabilized zirconia (used to produce fuel cells, among other applications) is sintered at 1400 degrees Celsius for many hours in a traditional process; using FAST, the same zirconia can be sintered in a matter of seconds, at a furnace temperature of 800 degrees Celsius.

The technology portfolio covered by the option was developed by <u>Rishi Raj</u>[29], a professor in CU-Boulder's mechanical engineering department, and John Francis and Marco Cologna, at that time both researchers in the same department.

"We are developing technology that could potentially revolutionize the way that ceramics are manufactured in the future," said Francis, president of FAST Ceramics. The company is currently working on a Small Business Innovation Research (SBIR) grant from the National Science Foundation to help develop a new single-step flash-sintering process for use in solid oxide fuel cells.

"The FAST sintering technique represents an impressive leap forward in ceramic manufacturing," said Molly Markley of the CU Technology Transfer Office. "The process could have wide applicability across the industry, and we're eager to see FAST Ceramics further develop and implement the technology."

FAST (Field Assisted Sintering Technology) Ceramics is a research company dedicated to investigating the effects of electric and magnetic fields on sintering behavior such as flash sintering and flash-sinterforging. They specialize in the design and build of flash-sintering instruments, the design of experiments, microstructural characterization of materials, mechanical characterization of materials, and material testing of high-temperature ceramics and alloys. http://fastceramics.com[28].

23rd annual Welcome Wednesday draws crowd to Parade Grounds[30]

<u>[31]</u>

Even though temperatures were in the 90s, more than 800 students, faculty and staff turned out Aug. 28 for the 23rd Annual health sciences programs tradition Welcome Wednesday.

Student groups as well as other service groups such as the Anschutz Health and Wellness Center set up tables to provide information and answer questions. Even the campus orchestra Melomania was represented.

The event organized and hosted by Student Senate and Office of Campus Student Services signals the start of the new academic year.

"It's always nice to have students from all the different schools mingle and have a good time," said Chris Klekamp, Student Senate. "We really were hoping to attract a lot of students and having so many student organizations, a large area, and great music helped make it a fun way to ease back into school and kick off the new semester with a bang."

"It really is a chance for new students to get to know more about the campus, various programs, activities and to just spend a little time relaxing," said Cheryl Gibson, Office of Campus Student Services.

Event goers were treated to typical picnic fare. And for the first time at this year's event, Kosher grill items were available.

Willing participants could even work off a few calories at the impromptu volleyball games.

"The event was a huge success because so many volunteers did their best to give everyone a fun time," Klekamp said. "We could not have pulled this off without help from university facilities, the police, the Wellness Center, the Office of Campus Student Services and all our volunteers. We just really hope that students on campus saw how great our campus life here is and that Student Senate is here for the students and to do everything we can to support our student population."

CAP celebrates dawning of new era with open house[32]

Guests at the CAP open house enjoy seeing the renovated second-floor space in the CU Building. CAP Dean Mark Gelernter (center, in suit and glasses) greeted guests as they walked into the college's main reception area. Photo: Jesse Kuroiwa

Students, faculty and staff celebrated a new beginning for the College of Architecture and Planning on Aug. 26 as CAP hosted a festive open house for its second-floor renovation in the CU Building.

CAP Dean Mark Gelernter, along with Chancellor Don Elliman and Provost Rod Nairn, christened the new CAP reception area, studio space, gallery, lecture room and student lounge with a ribbon-cutting ceremony and hearty thanks to everyone who has contributed to this <u>exciting new era for the college[34]</u>.

"This is a very, very special time in the history of the <u>College of Architecture and Planning</u>[35], and it's a great opportunity," Gelernter said to the gathering of more than 170 students, faculty, staff and alumni.

With this year's launch of an undergraduate architecture program, CAP at CU Denver is now the only college in Colorado offering comprehensive degrees in design and planning of the built environment, from undergraduate through accredited professional master's degrees to the doctorate.

Gelernter thanked Elliman and Nairn for their "unwavering support" for CAP during this transitional period. "We've been through thick and thin and a lot of dramatic changes in this college and these two have done more than anyone would ever expect to support us and to make this work for us," he said. "Now we're reaping the benefits of that."

Gelernter added, "I'd also like to thank the faculty, staff and students whose hard work made this possible. I don't think we'd have the support of (the chancellor and provost) if all of you weren't doing this amazing work in the college."

CAP already has 100 students enrolled in the undergraduate program and about 400 graduate students. On the second floor, which was designed by <u>RNL[36]</u>, CAP students enjoy state-of-the-art studio space, a comfortable student lounge, a welcoming reception area and convenient, one-stop access to advisers, recruiters, mentorship and internship manager and conference space.

"We saw this as being a case study of how to do adaptive re-use of an old urban renewal building," Gelernter said. The second floor has a distinct, urban loft feel, melding up-to-date functions within the integrity of the original building.

The lobby also features furniture designed and built by CAP students. They took doors and other materials from the previous second-floor Business School space and recycled them into modern-looking furnishings.

Elliman congratulated CAP for its new beginning. "We are an urban research university -- that's who and what we are," he said. "Part of that means that you develop programs that are in synch with and in service to the community. And I can't think of a better example of that than the College of Architecture and Planning."

Nairn commended CAP for its growth, its <u>international reach[37]</u>, quality programs and award-winning students and faculty. "Spaces like this are what attract great students and help attract faculty, so they can do more great things," he said. "Thank you for what you do."

Dominic Weilminster, a CAP alumnus, was a primary architect from RNL who designed the new space. "The experience of the space is meant to celebrate the process of how creative work is done in the architecture school, from conceptual explorations in the studio spaces to their final communication in the gallery spaces," Weilminster said.

He explained that RNL purposely chose "raw, honest and not overly manufactured materials" to both enhance student learning about the built environment and provide an invigorated sense of identity for CAP. "We worked very hard to create a space that will remain viable even as design within the school evolves and, all the while, making a strong enough statement to provide a new identity for the school."

The space also includes a lecture room, which was used Aug. 26 for the Inaugural Lecture by Rick Joy. Joy, of Tucson, Ariz., is recipient of the American Academy of Arts and Letters Award in Architecture and the National Design Award from the Smithsonian Institute / Cooper-Hewitt Museum, and known especially for his desert works including Ventana Canyon House, Desert Nomad House and AvraVerde in Arizona.

The new gallery space features an exhibit of original drawings by Warren T. Byrd Jr., a renowned designer who recently received lifetime achievement commendation from the American Society of Landscape Architects. The exhibit, which runs through Oct. 2, is curated by CAP's Department of Landscape Architecture.

"The exhibit space allows us to be one of the venues in Denver for showing exhibits on design and planning," Gelernter said.

Weston lends expertise to congressional communicators during China trip[38]

[39]

Tim Weston, associate professor of history and associate director of the Center for Asian Studies at CU-Boulder,

recently served as the scholar/escort for a delegation of congressional communications directors during a weeklong educational trip to China.

The trip was jointly arranged by the National Committee on United States-China Relations, based in New York, and the Chinese National People's Congress (NPC). A few years ago, Weston was named a Public Intellectual Fellow of the committee, which is one of the leading non-governmental organizations that facilitates contacts between the Chinese and U.S. governments. Because of Weston's association with the committee and his expertise in both modern Chinese history and contemporary China, he was chosen to accompany the group to act as a resource during the trip.

The delegation included communications directors for House Minority Leader Nancy Pelosi, House Majority Whip Kevin McCarthy and Democratic Whip Steny Hoyer.

"I tried to put contemporary China in a longer, modern, historical context. Chinese government personnel are very conscious of history, and the folks I was with didn't have a serious background in Chinese history," Weston said. "For instance, I spoke about the role of imperialism in China and the sensitivity the Chinese have around these issues."

The group met with Madame Fu Ying, chairwoman of the NPC's Foreign Affairs Committee; the Ministry of Foreign Affairs (MoFA); Rui Chenggang, director and anchor of China Central Television (CCTV); a representative from Huawei Technologies Co., a privately held Chinese multinational and the largest telecommunications equipment maker in the world; and Ma Jun, director of the Institute of Public and Environmental Affairs.

Weston has been visiting and studying China for more than a quarter of a century. His most recent book on the subject is an edited collection titled "China In and Beyond the Headlines." He currently is examining 20th century journalism as it emerged in the country in the 1910s, '20s and '30s.

During the trip, Weston tried to convey to the delegates how "extraordinarily rapidly" the country is changing in order to help them understand the Chinese mentality about the kinds of problems it faces today.

"What I found most interesting is that I was traveling with a group of Americans whose job it is to create images for members of Congress and they were met on the Chinese side by an effort to do the same," Weston said.

"I have tried for a number of years to wear two hats -- a public intellectual who can talk about China outside of the classroom and outside of academic-style writings. This was a great opportunity to meet with people who are truly engaging with China in real-world sorts of ways -- business people and political actors. It's educational for me and allows me to feel my knowledge about China is of broad interest."

Weston, who is fluent in Chinese, actively promotes the study of China on the CU campus and also directs the undergraduate degree program on Asian studies.

Jin appointed to Secretary of Energy Advisory Board[40]

[41]

Deborah Jin, a physicist at the National Institute of Standards and Technology and professor adjoint for physics at the University of Colorado Boulder, as well as a fellow of JILA, a joint institute of CU-Boulder and NIST, has been named to the Secretary of Energy Advisory Board by the U.S. Department of Energy.

Jin, along with the other 18 members of the board, will serve as an independent advisory committee to Energy Secretary Ernest Moniz.

"These individuals represent some of the best and brightest in their respective fields and it is a great privilege that they have agreed to offer their expertise to the Energy Department," Moniz said. "Having a diverse set of voices around the table will ensure that the department has a strategic approach to the nation's energy, science, nuclear security, and environmental stewardship future."

The board will include four standing subcommittees that provide advice and recommendations to Moniz on the department's four major mission areas: science, energy, nuclear security, and environmental stewardship.

Dukovic named Beckman Young Investigator[42]

<u>[43]</u>

Gordana Dukovic, assistant professor in the Department of Chemistry and Biochemistry at CU-Boulder, has been named a Beckman Young Investigator by the Arnold and Mabel Beckman Foundation. The award will provide up to \$750,000 over four years to support Dukovic's research on new materials for solar energy harvesting.

The Beckman Young Investigator program provides research support to the most promising young faculty members in the early stages of academic careers in the chemical and life sciences particularly to foster the invention of methods, instruments and materials that will open up new avenues of research in science.

Dukovic is one of seven early career faculty to receive the award. She previously has received the CAREER Award from the National Science Foundation, and the Cottrell Scholar Award from the Research Corporation for Science Advancement.

Stefes collaborates on research regarding authoritarian regimes[44]

<u>[45]</u>

Christoph Stefes, associate professor political science at CU Denver, is the coordinator of a project at the Social Science Research Center Berlin (WZB) that examines why some dictatorships prevail while others are overthrown.

"This probably is the only project that connects various strands of research on the resilience of authoritarian regimes and empirically tests previously formulated theories," Stefes said. "Our main finding is that the current emphasis on institutions that try to shore up elite support for the dictator is exaggerated. We find that subtle forms of repression that limit civil rights and political liberties are effective in cementing the power of authoritarian rulers, as they sap the spirit and the organizational capacity of the opposition."

The research team identified three pillars of stability in its model of authoritarian rule: legitimation, repression and cooptation. "Soft repression" has — among these three factors — the greatest influence on the survival of a dictatorship, practiced, for example, in Putin's Russia. In Russia, citizens' civil rights are undermined through administrative pinpricks such as the closing down of offices and the freezing of bank accounts. Harsh repression measures, on the other hand, have almost no stabilizing effect at all.

Strengthening legitimation through a strong economy or improvement of internal or external security has the second greatest effect on the survival of a dictatorship. Co-optation, the imitation of democratic institutions for power-sharing purposes such as parties or parliaments — like in Myanmar — has the least influence on the survival of dictatorships.

"When countries from the West want to support a country's democratization process, it is vital to first understand the dynamics of authoritarian rule. Each form of repression must face sanctions accordingly," Stefes said. Since economic crises particularly weaken authoritarian regimes, economic boycotts should be effective measures to proceed against those regimes.

The research team analyzed data of authoritarian regimes in 137 countries for the past 60 years. Thus, one of the world's largest data collections was compiled on stability criteria of authoritarian regimes in Asia, the former Soviet countries and Eastern Europe, Africa, the Arab countries and Latin America. The project is funded by the German Research Foundation (DFG).

First results of the project are published in a special issue of Contemporary Politics: Dag Tanneberg, Christoph Stefes and Wolfgang Merkel: "Hard times and regime failure: autocratic responses to economic downturns," 2013, Vol. 19, No. 1, pp. 115-129.

Six new faculty join three UCCS colleges[46]

Six new faculty members have joined the College of Engineering and Applied Science, the College of Letters, Arts and Sciences and the Beth-El College of Nursing and Health Sciences at UCCS. They are:

John Adams, instructor, Department of Mechanical and Aerospace Engineering, College of Engineering and Applied Science -- Adams previously served as a lecturer at Colorado College. He earned undergraduate and doctoral degrees from the University of Western Australia.

[47]

Diane Belger, instructor, Accounting Department, College of Business -- Belger rejoins UCCS after serving as an adjunct faculty member at Drake University, Des Moines, Iowa, as a member of the faculty at Pikes Peak Community College, and working in accounting positions for local nonprofit groups. She previously served as an adjunct faculty, senior instructor of accounting and director of advising for the UCCS College of Business from 1990 to 1997. She earned bachelor's and master's degrees from the University of Colorado and holds a Colorado Certified Public Account license.

Melissa Benton, associate professor, Nursing Department, Beth-El College of Nursing and Health Sciences -- Benton previously served as an assistant and associate professor of nursing at Valdosta (Ga.) State University and held clinical positions at Laguna Honda Hospital and Rehabilitation Center, San Francisco. She earned an associate's degree from City College of San Francisco, a bachelor's and master's degree from California State University Dominquez Hills and a doctoral degree from Arizona State University.

<u>[48]</u>

Stephen Carter, assistant professor, Department of English, College of Letters, Arts and Sciences --

Carter previously served as an instructor and teaching assistant at the University of California, Santa Cruz, and as an instructor at Phillips Academy, Andover, Mass. He earned a bachelor's degree from Brown University and doctoral degree from the University of California Santa Cruz.

<u>[49]</u>

Leah Davis-Witherow, instructor, Department of History, College of Letters, Arts and Sciences -- Davis Witherow previously served as an adjunct lecturer at UCCS and as a curator at the Colorado Springs Pioneers Museum. She earned a bachelor's degree from California State University, Long Beach, and a master's degree from the University of Colorado.

<u>[50]</u>

Jay Dawes, assistant professor, Health Sciences Department, Beth-El College of Nursing and Health Sciences --Dawes previously served as an assistant professor in the Department of Health Sciences at Texas A&M University Corpus Christi. He earned a bachelor's degree from the University of Oklahoma, and master's and doctoral degrees from Oklahoma State University.

Dropping names ...[51]

Morgenthaler

Greenwood

Cucchiara

Jian Yang, a CU Denver Business School professor of finance, has been recognized for his manuscript regarding real estate investments by the American Real Estate Society (ARES). His work, "Price Jump Risk on the U.S. Housing Market," was selected as the best in its category. Yang's research interests in investment focus on empirical asset pricing, monetary and fiscal policy impacts on financial markets, portfolio management, risk management, futures markets, CDS markets, and market efficiency. Yang will be recognized in the Fall 2013 ARES Newsletter and at an awards ceremony at ARES 2014 National Meetings in San Diego, Calif. This award includes a \$1,500 prize. ... Hans Morgenthaler, associate professor of architecture at CU Denver, presented a paper titled "Stylistic Trajectories Through Colorado's Architecture" in a panel on "Cities in Change: Designing Denver" at the 106th Annual Meeting of the Pacific Coast Branch of the American Historical Association, Aug. 8-10 in Denver. ... Tony Mazzeo, senior instructor of landscape architecture at CU Denver and principal at GroundWorks Design[55], is getting recognition for the project FR8scape[56], an outdoor courtyard that GroundWorks designed for the mixed-use Taxi Development[57], an old industrial complex in North Denver. In addition to being featured in the summer issue of "Modern in Denver," there is an article, "FR8scape: Former Freight Yard Transformed into Green Gathering Space," in the weblog "Inhabitat: Sustainable Design Innovation, Eco Architecture, Green Building." ... Daphne Greenwood, professor in the Department of Economics and director of the Colorado Center for Policy Studies at UCCS, presented "Bound for the Berkshires: Economic Development in a Special Place," Aug. 21 at the American Institute for Economic Research's Harwood Library Auditorium in Great Barrington, Mass. Greenwood is a former AIER summer fellow. ... Dan Theodorescu, director of the University of Colorado Cancer Center, has been elected to a three-year term on the board of the Association of American Cancer Institutes. The group represents 95 academic and free-standing cancer research centers in the United States. ... Stephen Cucchiara, assistant director, Office of Student Activities at UCCS, published "Commoditization Versus Differentiation: How We Market Our Universities" in the June 28 edition of "The Evollution," an online newspaper devoted to higher education issues. See the article at http://www.evolllution.com/institutional_operations/commoditization-differentiation-market-universities/[58]

Names of current and former University of Colorado faculty and staff who have died in recent weeks. List compiled by Employee Services.

CU-Boulder

Donald E. Loomiller, 83, retired staff. Aug. 9, 2013.

Next Supplier Showcase is Wednesday[60]

A new series of Procurement Service Center (PSC) Supplier Showcases gets underway Wednesday at the University of Colorado Boulder.

PSC showcases provide an opportunity for suppliers to display and demonstrate new products and services. Showcases also provide CU faculty and staff with an opportunity to meet with suppliers they already do business with and discover new goods and services from potential suppliers.

A variety of suppliers will be in attendance, representing a wide range of commodities. Showcase sponsors, Staples, Dell, The Parking Spot and Xerox, will be featured at each event. Sponsor representatives and supply partners will be on hand, along with Christopherson Business Travel representatives. Many new suppliers will exhibit, including Temporary Services suppliers.

Several campus and system departments also will be present. You will have the opportunity to visit with PSC staff members to talk Travel, mention Marketplace and pose questions about policies and procedures. Financial and Ethics representatives also will be available to discuss issues and topics.

All CU faculty and staff are invited to attend:

10 a.m.-1 p.m. Wednesday, CU-Boulder, UMC Glenn Miller Ballroom. 9:30 a.m.-1:30 p.m. Sept. 19, CU Anschutz Medical Campus, Research Center 2 (RC2), Second Floor Conference Room. 10 a.m.-1 p.m. Sept. 25, UCCS, University Center Berger Hall.

For more details, go to <u>www.cu.edu/psc[</u>61]

Protecting data[62]

Information is a critical university asset and it is incumbent upon all employees to ensure the protection of sensitive information. It is primarily our data, including Personally Identifiable Information (PII) that cybercriminals are after. The key to protecting both yourself and our organization is to protect the confidential information we work with every day.

Please read the September 2013 Office of Information Security Cybersecurity newsletter (<u>https://www.cu.edu/content/oismonthlycybersecuritynewsletter</u>[63]) to protect university data.

You can find the University's definitions for Private and Sensitive information here: <u>https://www.cu.edu/policies/glossary.html#[64]</u>

The IT Security Program APS on the following link provides more information about the responsibilities of users as it relates to using IT Resources and protecting data: <u>https://www.cu.edu/policies/aps/it/6005.pdf[65]</u>

Links

[1] https://connections.cu.edu/stories/five-guestions-noah-finkelstein[2] https://connections.cu.edu/file/5g-finkelsteinpng [3] http://www.colorado.edu/csl[4] https://connections.cu.edu/stories/cu-researchers-attract-774-million-sponsoredfunding[5] https://connections.cu.edu/stories/linkedin-launches-university-pages[6] https://connections.cu.edu/file/linkedinpng[7] http://www.linkedin.com/edu/school?id=18007[8] http://www.linkedin.com/edu/school?id=18009[9] https://mail.cu.edu/owa/redir.aspx?C=TrBRPEXilkm7TR5z9HJ3iK-6u-7UctAI11Vc0796JGUA22UH3SaHko7lhj8w8vs_3XSaKbDhb34.&URL=http%3a%2f%2fwww.linkedin.com%2fedu %2fschool%3fid%3d18010[10] http://blog.linkedin.com/2013/08/19/introducing-linkedin-university-pages/[11] http://ww w.linkedin.com/company/3770?trk=vsrp companies res name&trkInfo=VSRPsearchId%3A44338304137718352 4211%2CVSRPtargetId%3A3770%2CVSRPcmpt%3Aprimary[12] http://www.linkedin.com/company/3771?trk=vsrp_co mpanies res name&trkInfo=VSRPsearchId%3A443383041377183524211%2CVSRPtargetId%3A3771%2CVSR Pcmpt%3Aprimary[13] http://www.linkedin.com/company/3768?trk=vsrp_companies_res_name&trkInfo=VSRPsea rchId%3A443383041377183524211%2CVSRPtargetId%3A3768%2CVSRPcmpt%3Aprimary[14] http://www.linkedin.c om/company/2814979?trk=vsrp companies res name&:trkInfo=VSRPsearchId%3A443383041377183615281%2 CVSRPtargetId%3A2814979%2CVSRPcmpt%3Aprimary[15] https://connections.cu.edu/stories/brief-medical-visit-ledlasting-lifestyle-changes[16] https://connections.cu.edu/news/brief-medical-visit-led-to-lasting-lifestylechanges/beco_dubois[17] https://connections.cu.edu/sites/default/files/wp-content/uploads/2013/09/beco_sidebar.png [18] http://www.BeColorado.org[19] https://connections.cu.edu/stories/campus-growth-stresses-parking-capacity[20] https://connections.cu.edu/file/uccs-parkingpng-0[21] http://www.springsgov.com/Page.aspx?NavID=4971[22] http://www.uccs.edu/~pts/[23] https://connections.cu.edu/stories/6-million-cu-boulder-instrument-fly-friday-nasa-missionmoon[24] https://connections.cu.edu/file/ucbladee2png[25] https://connections.cu.edu/file/ucbladee1png[26] https://connections.cu.edu/stories/fast-ceramics-develop-low-energy-low-temp-ceramics-manufacturing-process[27] https://connections.cu.edu/file/ttoceramicpng[28] http://fastceramics.com/[29] http://www.rishirajboulder.com/[30] https://connections.cu.edu/stories/23rd-annual-welcome-wednesday-draws-crowd-parade-grounds[31] https://connections.cu.edu/file/anshcutzwednesdaypng[32] https://connections.cu.edu/stories/cap-celebrates-dawningnew-era-open-house[33] https://connections.cu.edu/file/ucdribboncut1png[34] http://www.ucdenver.edu/academics/colleges/ArchitecturePlanning/AboutCAP/Pages/Dean%27s-Welcome.aspx[35] http://www.ucdenver.edu/Academics/Colleges/ArchitecturePlanning/Pages/default.aspx[36] http://www.rnldesign.com/[37] http://www.ucdenver.edu/about/newsroom/newsreleases/Pages/CAP-expandingpresence-in-China.aspx[38] https://connections.cu.edu/people/weston-lends-expertise-congressional-communicatorsduring-china-trip[39] https://connections.cu.edu/sites/default/files/wp-content/uploads/2013/09/people_weston.jpg[40] https://connections.cu.edu/people/iin-appointed-secretary-energy-advisory-board[41] https://connections.cu.edu/sites/default/files/wp-content/uploads/2013/09/people_jin.jpg[42] https://connections.cu.edu/people/dukovic-named-beckman-voung-investigator[43] https://connections.cu.edu/sites/default/files/wp-content/uploads/2013/09/people dukovic.jpg[44] https://connections.cu.edu/people/stefes-collaborates-research-regarding-authoritarian-regimes[45] https://connections.cu.edu/sites/default/files/wp-content/uploads/2013/09/people_stefes.jpg[46] https://connections.cu.edu/people/six-new-faculty-join-three-uccs-colleges[47] https://connections.cu.edu/file/puccsnewfacbelgerpng[48] https://connections.cu.edu/file/puccsnew-faccarterpng[49] https://connections.cu.edu/file/puccsnewfacdavispng[50] https://connections.cu.edu/file/puccsnew-facdawespng[51] https://connections.cu.edu/people/droppingnames-73[52] https://connections.cu.edu/file/p-dnmorgenthalerpng[53] https://connections.cu.edu/file/pdngreenwoodpng-0[54] https://connections.cu.edu/file/p-dncucchiarapng[55] http://groundworksdesign.net/[56] http://groundworksdesign.net/fr8scape/[57] http://www.taxibyzeppelin.com/[58] http://www.evolllution.com/institutional_operations/commoditization-differentiation-market-universities/[59] https://connections.cu.edu/people/memoriam-8[60] https://connections.cu.edu/stories/next-supplier-showcasewednesday[61] http://www.cu.edu/psc[62] https://connections.cu.edu/stories/protecting-data[63] https://www.cu.edu/content/oismonthlycybersecuritynewsletter[64] https://www.cu.edu/policies/glossary.html[65] https://www.cu.edu/policies/aps/it/6005.pdf