



## Five questions for Danny Rankin<sup>[1]</sup>

[2]

A mini-refrigerator sits under Danny Rankin's desk at the ATLAS Institute, which in itself isn't a novel idea. This little cooler, however, is special: It has been modified to be a vending machine that dispenses and delivers a canned beverage through a system of vacuum tubes that wind up through the ceiling and down to the desktop. Of course, if you were to open said beverage, you would be greeted with an explosion of liquid.

Aside from that fatal flaw, this "relic," which has been reinsulated a few times and is held together with duct tape, holds a special place in Rankin's heart and psyche. It was the first project he built at the Institute's Blow Things Up (BTU) Lab, where interested parties get the chance to explore their creative genius.

Since that first invention, Rankin has devised many others, some more feasible than the first. He is not aiming for commercial success, but instead, is satisfying a passion to explore how everything he has learned fits together and to solve problems.

Rankin, a lecturer in the Technology, Arts and Media Program at the institute, encourages that same passion in the students who take his classes and those he mentors at the BTU Lab.

[3]

He wouldn't have envisioned this role for himself years ago. After graduating from high school, he entered the Air Force as a linguist, and being musically inclined, spent a time with the Air Force band. Afterward, he returned to Colorado where he grew up, and earned his bachelor's degree in environmental studies at CU Boulder, which, in turn, led him to an interest in sustainable agriculture. He also discovered the BTU Lab at ATLAS where he not only created gadgets, but also served as a lab assistant and an administrator. He then earned a master's degree in creative technology and design and began student teaching.

"I think the one thing I hope (students) get from my classes and the lab is that there is no problem that is unsolvable," he said. "These days, with the access to all the information we have, and technology that is manufactured cheaply and delivered to our doors, we can solve almost any problem if we are willing to find the information and work with people around the world and hunt down the equipment and tools we need. I want the students to have that motivation, to understand that if they have a problem in business or in life, they don't have to give up or pay someone else to fix it – they can figure it out."

**1. One of the classes you taught last semester dealt with "Precious Plastic" and re-forming them into other, useful objects. What did the class entail?**

[4]

[Precious Plastic](#)<sup>[5]</sup> is an international project that has published blueprints for making recycling machines. The blueprints include four machines. Last semester, we built two of the machines: the shredder, which takes consumer waste plastic and shreds it into flakes, and a compression mechanism – in this case a transformed kitchen oven found on Craigslist – that heats and smashes the flakes into a mold to form an object. At the end of the semester, the students conducted a living laboratory where others could come see the kind of work we've been doing. In this case, the students built a skateboard from plastic milk jugs. It takes about 30 minutes to turn the plastic flakes in the mold in the oven into a skateboard.

[6]



It is a passion for me to see students learn how to make physical things. I work in the Technology, Arts and Media Program, where the students mostly focus on digital creation, which is great, but I find that a lot of the students are jonesing for actual hands-on creative work, and so it is nice to give them an outlet where they can critically think about how to make things by hand. Several of the students want to turn this into a student club because they want to keep working on the machines and open it up to other students who were not in the class.

## **2. You also mentor students in the Blow Things Up Lab. What is this lab and what is its mission? What does your mentorship entail?**

[7]

The BTU is a student hacker space – a kind of a make-weird-stuff space. It's been part of ATLAS for almost four years and is unique to the campus. There are a lot of spaces on campus that have tools and equipment, but the BTU Lab is more interested in a community development and is more student-run than other spaces. For instance, we have students decide on the budget and what happens in the lab, as well as the policies for the lab. It is open to anyone, including current students, staff, even community members who are tangentially connected to the school. We have a lot of people there who make the projects they are passionate about. I get excited about students who have an idea and want to bring it to life.

I was mentored by some people in that space when I was finishing up my farm research, and it became important to me as I grew in knowledge and skills to see that carried forward. Someone helped me figure out what I wanted to do with my life and I want to do the same. I also help students figure out how to wire something correctly.

Students have been making a variety of things like a weird custom guitar, wearable technology, reactive motorcycle shoes that provide extra brake lights for the ride, a giant Connect Four board, a custom arcade, and a lot of kinetic and reactive art – weird stuff with lights.

## **3. What other activities or research are you working on?**

When I was doing grad work, I started making games with my adviser Matt Bethancourt. For instance, I'm working on making games that are controlled with things that aren't normally used to control things. We have one called "[Busy Work](#)." It's set in an old office with old keyboards and computers and phones, and have designed it as a real experience. You are sitting in an actual cubicle smashing the keyboard and answering the phone as fast as you can. We exhibited at IndieCade in Los Angeles and Paris and won an award there.

During that project, we fell in love with old phones, and I've been tearing them apart and rewiring them and trying to make video games that live inside them, which is kind of fun. ATLAS is a cool space for doing that.

## **4. A university article called you a “farmer, designer, artist, instructor, musician, hacker, coder, craftsman, husband, veteran and visionary,” and you’ve backed that up. What drives you?**

[9]

I get really excited about starting new things and developing the process for seeing them get finished, but I usually get a little bored with the actuality of completing the entire process. I like exploring the new thing in various fields. The world is a super interesting place and it is full of a lot of fascinating topics and complicated and difficult problems that need solutions.

Every single thing I learn helps me do the next thing I want to do. Learning about the environment helped me learn about farming, which helped me learn about technology, which helped me get into reactive art, which helped me start



teaching about how to build those things, which makes me think about education, which I really like doing. Everything is connected through my interests and weird coincidences and happenstance. I have met some amazing people since I started doing this. If you were to have asked me 10 years ago if my resume would look like this, I would have said none of the things sounded appealing to me.

I think there is an unfortunate dichotomy between university education and trade education that says you are an academic brain thinker and you solve problems, or you are in this group of people who solve plumbing and building issues. I don't think those have to necessarily be separate, and I think there's a lot of existential benefit to be gained from manual work. I think our brains get a lot of satisfaction from it, and it affords us a lot of time to think about meaningful things. For me, some of the best conversations about what is going on in the world or about the meaning in life usually happen while I'm tilling the field or working with my hands. There's an important connection between the satisfaction you get from creating things and the mental exercise you get when doing something that is tedious and how that actually affords you mental space to think about a higher subject.

### **5. What are some of the things you have built or devised that are successful and some that might need a little more work?**

I moved to a farm that a friend of mine owns in Boulder and we run a community-supported agriculture program. You would buy a share at the beginning of the season and we use the money to buy supplies and animals, mostly chickens, pork, lamb, beef and turkeys. We also run a small raw milk dairy.

It's a busy farm, but pretty small. On the farm we've made many different machines, some of which have broken because farm life is really hard on machines. We built a chicken incubator in an old refrigerator and things were going well, until at some point, a gear motor broke and the eggs over-heated and we ended up with a refrigerator full of rotting eggs.

I've built a lot of things in the BTU Lab that are hanging from the ceiling that are only partially functioning. My thesis project was a tube-based internet where you could send messages through tubes with vacuums, but it only works when I am there to gingerly coax it.

[10]

I also have a game that I just finished that we just Kickstarted. It's called "Ravine" and is a tabletop card game that is a cooperative wilderness survival card game. It did really well through Kickstarter and now we have to start fulfilling orders, which is the place in the process where my eyes start to glaze over. I get excited to make a game and put it on the internet and raise \$300,000, but when we have to take that money and make the game and ship it to people, I start to freak out. I have a lot of good business partners who are involved. It started as a class project, and we had someone critique the class who also makes games, and he approached me and said, "Let's make this game." (For more information on "Ravine," visit [www.playravine.com](http://www.playravine.com).)<sup>[11]</sup>

## **Summit of leaders – and a call to action – at CU Advocacy Day**<sup>[12]</sup>

[13]

Tuesday's CU Advocacy Day at the Capitol brought together leaders from across the university and Colorado state government, as well as members of the [CU Advocates](#)<sup>[14]</sup> group – who were asked to take part in some timely lobbying.

About 160 members of the grassroots network of supporters from the CU community and beyond assembled in the Old Supreme Court Chambers, where they heard information on [House Bill 1086](#)<sup>[15]</sup>, which would allow community colleges



to offer four-year nursing degrees like those currently available at CU Anschutz, UCCS and six other institutions across the state.

[16]

In remarks to the audience, Michael Lightner, vice president for academic affairs, said the state's nursing shortage is just one facet of health care challenges facing the state that demand a broader, systemic approach. CU's existing four-year nursing programs are available online and are poised to grow easily.

"Our concerns are, resources – nursing faculty and state dollars – are scarce, and we think we can provide for the current situation," Lightner said. Rather than create inefficiencies and duplication while seeing limited resources spread even thinner across the state, CU instead would welcome further partnerships involving transfer and pipeline agreements with two-year institutions.

[17]

Tanya Kelly-Bowry, vice president of government relations, and Todd Saliman, vice president of budget and finance, encouraged CU Advocates to call or write their state representatives and express opposition to the bill for those reasons.

"While you're calling them to ask them to vote against something, also ask them to vote for something: the governor's budget request," Saliman said. As first detailed by Gov. John Hickenlooper in November, the budget calls for a 10 percent increase in funding for CU. "It's going to help us keep tuition increases in check and allow us to repair buildings and do other important things on our campuses. It will do a lot of good for us and we really hope it's adopted by the legislature."

[18]

Hickenlooper also appeared at the event, noting his long-held belief that investment in higher education is key to growing good jobs and a strong economy.

"CU is one of the major engines of our economy," Hickenlooper said. "My job is just to tell you, don't let up. And on behalf of the state of Colorado, thank you."

[19]

Sen. Chris Holbert, majority leader, stressed the accessibility of state representatives, and encouraged all to contact their elected officials with questions and concerns as issues arise.

"You're not in Congress – we're not in Washington, D.C.," he said. "My encouragement is, don't put legislators on a pedestal. What we do is important, but we are entirely accessible. We work for you."

[20]

The 90-minute program also featured remarks by CU President Bruce Benson, who told Advocates, "You have been our marketing operation for the last six years and have done a great job,"; Michele McKinney, assistant vice president of advocacy and external relations; and Christina Beck, current CU Advocate of the Year. The audience included Phil DiStefano, CU Boulder chancellor; Dorothy Horrell, CU Denver chancellor; and Regents Jack Kroll, Sue Sharkey and



Linda Shoemaker. Many also attended a post-event networking reception with many lawmakers at the nearby Benson Mineral Group, where President Bruce and Marcy Benson hosted.

[21]

The CU Advocacy Day program at the Capitol continued its tradition of showcasing unique centers at CU. Matt Vogl, executive director of the National Mental Health Innovation Center at CU Anschutz, discussed the university's role in rising to mental health care challenges across Colorado; Robert Kaufman, visiting scholar of conservative thought and policy at CU Boulder, who said the program has become a template for others nationally.

[22]

"Academic freedom at the highest level is not an issue that is partisan, but one that should engage all Americans of goodwill. It's a fight worth fighting for everyone," Kaufman said. "My only suggestion for the program is my hope that in the years to come, the University of Colorado broadens it, deepens it and institutionalizes it with an endowed chair."

[23]

## Anti-bullying policy earns preliminary approval of Faculty Council<sup>[24]</sup>

A new workplace bullying policy that governance groups have been working to develop for years earned the approval of the Faculty Council at its Jan. 25 meeting at 1800 Grant St.

As stated in the draft language of the Administrative Policy Statement (APS), the intent is "to foster a climate that discourages workplace bullying and to communicate to all employees that any incident can be subject to discipline."

Having passed a motion for approval at the meeting, the APS will continue to be reviewed by stakeholders. Staff Council also has worked to advance such a policy.

[Read the APS as voted on by Faculty Council here \(pdf\)](#).<sup>[25]</sup>

Jeremy Hueth, University Counsel managing associate, noted the challenges in developing the policy, which walks a fine line of regulating conduct – the encouragement of collegiality and discouragement of emotional or psychological abuse in the workplace – without conflicting with academic freedom and freedom of speech.

"We've tried to walk a razor's edge," Hueth said. The policy merely articulates "a standard and expectation of behavior" not expressly addressed by existing discrimination and harassment laws and policies.

In other business at last week's meeting:

The council heard an update on usage of the [Faculty Housing Assistance Program](#)<sup>[26]</sup>, a benefit used for recruitment and retention of tenure and tenure-track faculty. Since the university took over funding of the program in 2004, it has funded 417 home loans for a total of \$29.4 million. Dan Wilson, CU treasurer, chief investment officer and associate vice president for budget and finance, and Alexis Kelly, CU assistant treasurer, provided the update. Felicity O'Herron, chief human resources officer and associate vice president of Employee Services, said the June pay date for CU employees will return to the last workday of the month, which this year is June 29. Previously, the state required the June pay date to be at the start of July.



## Check your mailbox: tax forms on the way<sup>[27]</sup>

<sup>[28]</sup>

Employees can expect to find their [W-2s](#)<sup>[29]</sup> in their mailboxes and on the portal in the coming week. Form 1042-S has been mailed to international employees, and form 1095-C will be mailed in March to employees enrolled in a CU Health Plan.

**W-2:** The W-2, a federal tax form stating how much an employee was paid in a year, was sent to employees' mailing addresses on file in the employee portal. Digital copies will be made available to view and download in the portal soon.

### Access the W-2 electronically

Employees can access the form in the portal by following these steps:

Log into the [portal](#)<sup>[30]</sup>. Open the **NavBar** and select **CU Resources**. Click on **My Info and Pay** to access the **W-2** option at the bottom of the menu. (Note: Before you can access this information, you'll be prompted to [verify your identity](#)<sup>[31]</sup>.)

More information and instructions on how to read the W-2 can be found [here](#).<sup>[29]</sup>

**1042-S:** The 1042-S form has been mailed to non-U.S. citizens who had one or more of the following in 2017:

Tax treaty-exempt income  
Non-qualified scholarship payments  
Taxable non-employee compensation  
International employees whose wages were eligible for a tax treaty will receive Form 1042-S for their tax treaty-eligible wages paid the previous calendar year. Employees who meet these criteria, but have not received their form shortly after Feb. 15, should complete a 1042-S [Reissue Request Form](#)<sup>[32]</sup> and submit it to Employee Services.

Employee Services will offer various resources to help international employees with their personal tax filing obligations in 2018.

More information about the 1042-S can be found [here](#).<sup>[29]</sup>

**1095-C:** The 1095-C will be mailed no later than March 2. This form is sent annually, providing employees with information regarding their employer-provided health insurance coverage. Employees do not need this form to file their taxes, but should save it with their tax return.

### Access the 1095-C electronically

When this form is made available on the portal, employees can access it by following these steps:

Log into the [portal](#)<sup>[30]</sup>. Open the **NavBar** and select **CU Resources**. Click on **Benefits and Wellness** to access the **View Form 1095-C** option in the menu. (Note: Before you can access this information, you'll be prompted to verify your identity using [multifactor authentication](#)<sup>[31]</sup>.)

More information about the 1095-C and instructions on how to read it can be found [here](#).<sup>[29]</sup>

## ODECE, campus Be Woke program gain momentum for 2018<sup>[33]</sup>

## Students to be focus of February Chancellor's Town Hall<sup>[34]</sup>

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## Mechanical engineering students start specialization by building lightsabers<sup>[35]</sup>

## Changes to rating system caused consumers to choose better providers<sup>[36]</sup>

## Eckel named interim vice chancellor for research<sup>[37]</sup>

Robert Eckel has been named interim vice chancellor for research, University of Colorado Denver | Anschutz Medical Campus, filling the role that had been held by Richard Traystman, who died last October.

Eckel has been at CU for nearly 40 years as a physician and researcher studying lipid and lipoprotein metabolism, with the goals of reducing obesity and preventing heart disease. He is a professor of medicine, physiology and biophysics, and directs the Lipid Clinic at the University of Colorado Hospital. He also is past president of the American Heart Association.

## Church searches for untold stories<sup>[38]</sup>

## Krakowiak examines character traits in media<sup>[39]</sup>

### Links

- [1] <https://connections.cu.edu/spotlights/five-questions-danny-rankin>
- [2] [https://connections.cu.edu/sites/default/files/rankin\\_01.jpg](https://connections.cu.edu/sites/default/files/rankin_01.jpg)
- [3] [https://connections.cu.edu/sites/default/files/rankin\\_03.jpg](https://connections.cu.edu/sites/default/files/rankin_03.jpg)
- [4] [https://connections.cu.edu/sites/default/files/rankin\\_04.jpg](https://connections.cu.edu/sites/default/files/rankin_04.jpg)
- [5] <https://preciousplastic.com/>
- [6] [https://connections.cu.edu/sites/default/files/rankin\\_02.jpg](https://connections.cu.edu/sites/default/files/rankin_02.jpg)
- [7] [https://connections.cu.edu/sites/default/files/rankin\\_btu.jpg](https://connections.cu.edu/sites/default/files/rankin_btu.jpg)
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- [11] <http://www.playravine.com/>
- [12] <https://connections.cu.edu/stories/summit-leaders-and-call-action-cu-advocacy-day>
- [13] [https://connections.cu.edu/sites/default/files/cuadv-cap\\_top.jpg](https://connections.cu.edu/sites/default/files/cuadv-cap_top.jpg)





- [14] <http://www.cu.edu/cu-advocates>
- [15] <https://leg.colorado.gov/bills/hb18-1086>
- [16] [https://connections.cu.edu/sites/default/files/cuadv-cap\\_lightner.jpg](https://connections.cu.edu/sites/default/files/cuadv-cap_lightner.jpg)
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- [24] <https://connections.cu.edu/stories/anti-bullying-policy-earns-preliminary-approval-faculty-council>
- [25] [https://connections.cu.edu/sites/default/files/2018\\_02-1\\_aps\\_antibully.pdf](https://connections.cu.edu/sites/default/files/2018_02-1_aps_antibully.pdf)
- [26] <https://www.cu.edu/treasurer/faculty-housing-assistance-program-0>
- [27] <https://connections.cu.edu/stories/check-your-mailbox-tax-forms-way>
- [28] [https://connections.cu.edu/sites/default/files/w2\\_feat.jpg](https://connections.cu.edu/sites/default/files/w2_feat.jpg)
- [29] <https://www.cu.edu/employee-services/get-your-w-2>
- [30] <https://my.cu.edu/>
- [31] <https://www.cu.edu/employee-services/it-takes-two-portal-security-strengthened-new-tool>
- [32] <https://www.cu.edu/employee-services/policies/w-21042-s-reissue-request-form>
- [33] <https://connections.cu.edu/stories/odece-campus-be-woke-program-gain-momentum-2018>
- [34] <https://connections.cu.edu/stories/students-be-focus-february-chancellor-s-town-hall>
- [35] <https://connections.cu.edu/stories/mechanical-engineering-students-start-specialization-building-lightsabers>
- [36] <https://connections.cu.edu/stories/changes-rating-system-caused-consumers-choose-better-providers>
- [37] <https://connections.cu.edu/people/eckel-named-interim-vice-chancellor-research>
- [38] <https://connections.cu.edu/people/church-searches-untold-stories>
- [39] <https://connections.cu.edu/people/krakowiak-examines-character-traits-media>