

Tales of two entrepreneurs: Students put vision into action

Young entrepreneurs Courtney Klein and Christina Hobson are both getting a practical lesson in entrepreneurship.

Although both are taking a different approach, there are many common lessons.

Klein, a graduate student in nonprofit leadership and management, is the executive director of Youth Re:Action Corps, a group dedicated to getting youths involved in their communities. Hobson, a senior in bioengineering, is founder of BioEnginity, a company building devices to help older adults with training and balance control.

Following is a question-and-answer session with the two students, offering insight into some of the lessons the two have learned as budding entrepreneurs:

How did you decide to start your own organization?

Klein: The driving force behind launching Youth Re:Action Corps was a trip I took during my freshman year in college. I traveled with a team of 12 young people to a rural village in the Yucatan peninsula of Mexico. While there, we worked with local community members to rebuild several roofs, construct a school, and work in medical clinics. We lived under a palm branch roof with no walls, slept in hammocks, and often showered in the rain because we had limited access to water.

I was profoundly impacted by the community in which we worked, and by their willingness to embrace young people working to create change.

Returning stateside, I realized the impact that young people could



TOM STORY PHOTO

Courtney Klein, a graduate student in nonprofit leadership and management, started Youth Re:Action Corps to build and connect a global movement of young people who understand they are capable of creating change.

have on community problems when they felt empowered to take action. I also realized the lack of awareness my peers, educators and neighbors had for communities outside their own.

I am motivated by a vision. A vision to build and connect a global movement of young people who understand they are capable of creating change; reverse the negative and defeatist mind-set surrounding young people and the value of their ideas; and empower generations who reshape the way the world looks, not by talking about problems, but by taking action to solve them.

Hobson: As a high school student, I worked on a research project that investigated the deterioration of balance control among older adults. The three-year study resulted in the fabrication of two prototype devices used to train the balance control of older adults.

One year later, while at ASU for a degree in bioengineering, I read an article about the Edson Student Entrepreneur Initiative on the ASU Web page. This program, which offers seed funding and office space, was an opportunity to commercialize the balance-training technology. After completing the application process, I was awarded \$20,000 and office space to launch the new venture, BioEnginity.

The following year I was awarded another \$7,500 and office space. The resources provided by the Edson program have given me the opportunity to fulfill a need that is not currently addressed in the marketplace.

As I have gone through the process of launching BioEnginity, I have realized there are some important benefits to working for oneself. The most satisfying benefits are the flexibility and independence that comes with running your own business. While launching and running a startup venture can lead to more hours worked and bigger risks, it is rewarding to know that you are in control over your destination.

Do you feel that being entrepreneurial is innate, can be taught, or both?

Klein: I think entrepreneurship is a balance of vision and support. The vision I have for Youth Re:Action Corps is what carries me forward regardless of the challenges, but the ability to surround myself and the organization with support from individuals within the community that bring their own expertise, talent and ideas has been crucial to our success. In short, I would say that to be a successful entrepreneur, you have to move your vision forward while understanding your own limitations and surrounding yourself with incredible mentors, advocates and colleagues.

Hobson: Both – I believe that being a successful entrepreneur requires an individual to have innate characteristics such as perseverance, willingness to take risks, being able to thrive in a world of uncertainty, having the ability to make decisions rapidly and effectively, and having a passion for your ideas.

With these traits, a student has the foundation to survive as an entrepreneur and not be conquered by the demands of running your own business.

I am also a strong advocate of entrepreneurship courses. Entrepreneurship curriculum teaches students the basics, such as writing a business plan, and exposes them to the realities of running a business in a protected setting.



BRANDON SULLIVAN PHOTO

As a high school student Christina Hobson helped research balance control for older adults. Now as a senior in bioengineering, she has a company to market a device based on her research.

How did ASU help you develop as an entrepreneur?

Klein: ASU has wholeheartedly embraced the notion of cultivating students, taking risks, and providing support to those that dream in an entrepreneurial capacity. The cross section of support provided by ASU and the ability to work in an environment with other student entrepreneurs has been the most valuable asset. Being able to support and learn from other students that are going through the same journey of making their visions a reality really provides a sense of community.

Hobson: As a bioengineering major, I have been challenged with understanding technical concepts, which is providing me with the background needed to understand the new technological developments in the markets targeted by BioEnginity.

However, as an entrepreneur, I have really developed through The Edson Student Entrepreneur Initiative. The program has been vital in teaching me core business competencies that I have not learned in the academic setting.

Through workshops, guest lectures, mentors, and interacting with other Edson students, I have been exposed to important concepts for succeeding as an entrepreneur and successfully launching a start-up venture. Some of these lessons include how to recognize and evaluate market opportunities, how to raise equity capital, and how to protect intellectual property.

Breaking seven common myths of entrepreneurs

In many ways, the ideas of entrepreneurship can be misunderstood. Following are seven key myths about the process:

Myth: Entrepreneurship is only about making money.

Fact: Many entrepreneurial ventures have a strong public purpose and commitment to social responsibility. The term "social entrepreneurship" is used to describe ventures that focus on social outcomes and improvements, rather than on making money. Examples of social entrepreneurs making the world a better place can be found at: <http://www.fast-company.com/social/2007/>.

Myth: Entrepreneurship is only for people in business.

Fact: Entrepreneurial skills are as important for an artist as they are for a journalist, a scientist, an educator, a health care professional, or a businessperson. Jewell Parker Rhodes, novelist and the artistic director

of the Virginia G. Piper Center for Creative Writing, has this advice for young artists and other entrepreneurs: "Instead of being passive and waiting to see what the world will do with your work, take ownership and think about what you can do with your work."

Myth: You have to be wealthy to be an entrepreneur.

Fact: With passion, persistence and a plan, any entrepreneur can identify and obtain sources of funding and other resources to bring their idea to life. Steve Wozniak, co-founder of Apple, Inc. agrees: "All the best things I did at Apple came from a) not having money, and b) not having done it before, ever." See <http://entrepreneurship.asu.edu> for some current resources at ASU.

Myth: Entrepreneurship can't be taught.

Fact: Universities have a key

role to play in equipping students with entrepreneurial skills. According to Judith Cone, vice president for entrepreneurship with the Ewing Marion Kauffman Foundation, "Whether considering starting an enterprise or just wanting to be an outstanding employee, students want to learn how to recognize opportunity, harness the resources to exploit that opportunity, exercise their creativity, create sustainable solutions, take the inherent risks, and participate in the rewards." Read more at <http://www.kauffman.org/items.cfm?itemID=716>.

Myth: All the big entrepreneurial opportunities have already been taken.

Fact: With new technologies emerging every day, there are always new possibilities for innovative ideas and turning those ideas into successful ventures. Take the advice of jazz genius Miles Davis: "Don't play what's

there, play what's not there."

Myth: You have to have the right kind of personality to be an entrepreneur.

Fact: A successful venture might involve a number of people and roles that reflect a wide range of skills sets and personalities. Tom Kelley, General Manager of IDEO, has a new book, "The Ten Faces of Innovation," which describes 10 innovative personas from "the experimenter" to "the storyteller."

Myth: If I fail in a venture, that means I'm a failure.

Fact: Success is often the result of many failures along the way. The key is to turn each failure into lessons that will help you improve the next time around. Take this observation from American inventor Thomas Edison: "Many of life's failures are people who did not realize how close they were to success when they gave up."

Center director builds bridge for community access

By Britt Engle

When Alex Perilla was faced with the challenge of building an intensive community outreach program from the ground up, he knew his chances of success were good.

His partnership with national civil rights leader Raul Yzaguirre would provide the newly established Center for Community Development and Civil Rights with strategic alliances already in place in the community. The rest would be up to Perilla and his growing staff to launch an organization that is relevant to the community and reflects ASU as a New American University.

Perilla's role as director of the center, located on the Downtown Phoenix campus in the heart of the city, centers on one main element: growth. Perilla is focusing his efforts on building a richer, healthier and diverse community, one that bridges naturally to ASU and reflects Phoenix's large Latino population.

"If ASU is to represent the community in which it exists, it has to attract a significant number of Latino students," says Perilla. "To do this we have to get families involved. And the

number one thing we can do to get families in the community involved is to make sure they are telling their kids to go to college."

Perilla, who is at the forefront of a major community outreach program targeted at the Latino community, is referring to his work with PIQE, the Parent Institute for Quality Education organization. PIQE's mission is to create a community in which teachers and parents collaborate to transform each child's educational environment at home and at school so that all children can reach their greatest academic potential.

"PIQE is part of the process of finding every single opportunity to develop a pipeline of students, to increasing the wealth of the community and making it more proportionally represented," says Perilla who oversees the program.

The program relies on a training course that prepares parents to take on more active roles in creating a home learning environment and navigating the school system in order to support students' development and encourage college attendance.

Once parents have completed the course, they

graduate and receive "Future ASU Student" identification cards to give to their children. With 700 parent graduates, Perilla estimates approximately 2,000 of Phoenix's students currently carry ASU cards around with them in their wallet with plans of higher education in their future.

"Entrepreneurship is about finding opportunities and applying it to both the university and the community," says Perilla, who understands the slow, deliberative nature of the social entrepreneurship process, which thrives on developing personal relationships and relevant cultural partnerships. "Here, we focus on essential principles to accomplish growth for the sake of growth."

Perilla looks forward to the growth of Phoenix, the university and the bridge that he and his staff have started building to ensure a more visible community presence at ASU.

"It's wonderful to get the chance to create something from scratch with the backing of a university and the belief in universal access."

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Student designs sound technology venture

By Heidi Fischer

Mike Munroe has been told that he has all the hallmarks of a born engineer. In his spare time, when he isn't busy completing assignments for classes in subjects such as turbulence and fluid dynamics, the 31-year-old mechanical engineering major voluntarily tackles a whole host of other technical challenges.

For example, after participating twice in the grueling cross-continental solar-powered car race known as the North American Solar Challenge, Munroe started a project to resolve some of the engineering bugs in solar-powered automobiles. That's just one of many brainteasers he's puzzling over.

"I put a little water in lots of different pots and see which ones grow," he says, laughing. A project that Munroe hopes will bear fruit is a new audio device that he and his teammates are developing in this year's InnovationSpace program. Charged with creating a product concept that will enhance the independence of elders in their home environments, Munroe's team of design, engineering and business students focused on devising a new kind of hearing aid. Adapting iPod technology with a surprising new twist, Munroe plans to have a working prototype that listeners can take on a test drive at the final exhibition of InnovationSpace projects in May.

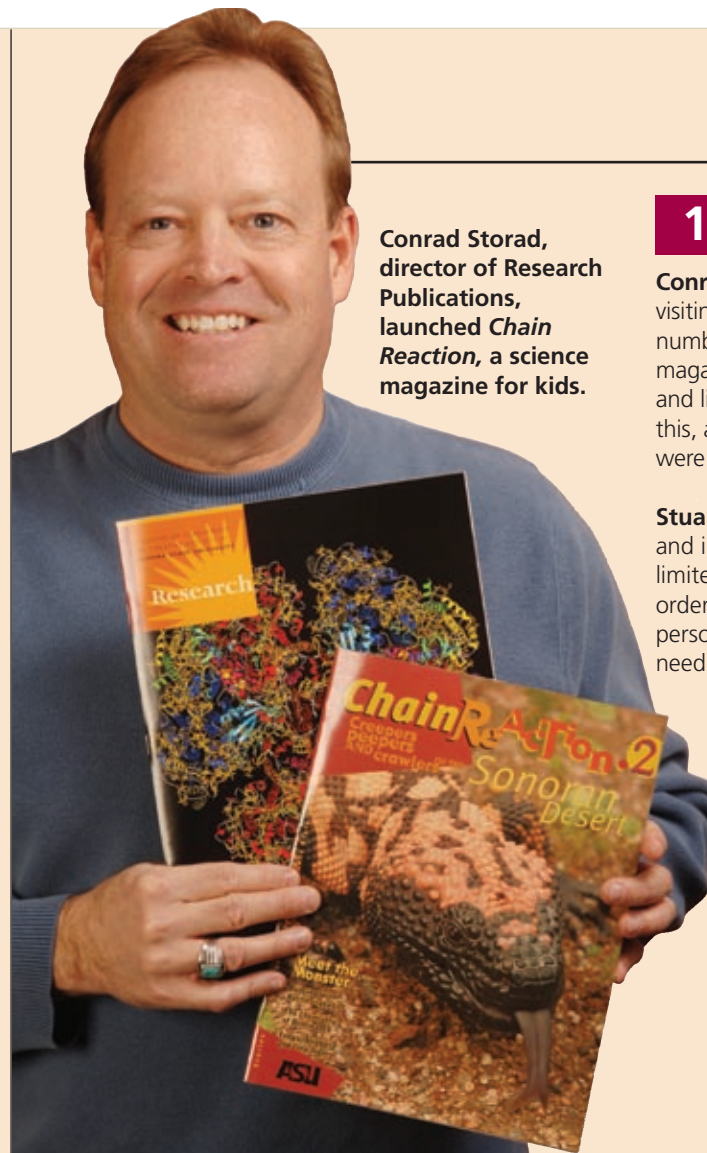
People with hearing loss, Munroe points out, lose it in increments, or windows, between one spectrum and another. Using psycho-acoustic filtering technology, the kind that's used to pack lots of data into miniature mp3 players, Munroe hopes to create a device that can perfectly match sound to the user's remaining hearing spectrum. The device will have added appeal to audiophiles like Munroe who will be able to hear a violinist drag a bow across the strings of an instrument with startling clarity. Munroe is as much admired by his teammates for his imaginative engineering as he is for his enthusiastic embrace of technology's potential to solve real-world problems.

"I was thinking this morning, what is the key to being great wherever you are?" he says. "I thought, maybe it's talent or ability. Maybe it's raw mental horsepower. But it's not. It's passion. I made a covenant with myself that, as far as I could, I would only do things with my whole heart and try not to do anything with less than that."

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10 entrepreneurial steps to take:

1. Identify your unique talent, and determine how to use it to serve others.
2. Write a plan for a new venture based on an idea you had while taking or teaching a recent course.
3. Get involved outside your academic discipline.
4. Identify others with skills that complement yours.
5. Think of a product you can sell, a service you can provide or art you can create.
6. Propose a solution to problems in a program or industry with which you are familiar.
7. Participate in entrepreneurship events and programs.
8. Get practical: establish a sole proprietor LLC in Arizona and set up a business bank account to use for business transactions.
9. Find funding – see <http://entrepreneurship.asu.edu> to learn about new funding opportunities, such as the Student Pathways Award for faculty and staff and the ASU Entrepreneur Advantage for students.
10. Listen to other entrepreneurs' stories for the common threads in their success. Use that understanding to put your own plan into action.



Conrad Storar, director of Research Publications, launched Chain Reaction, a science magazine for kids.

IDEAS TO RESULTS: STEP BY STEP

1. I really need a...

Conrad Storar: Storar came up with the idea for his magazine *Chain Reaction* while visiting schools in Arizona as a children's book author. Having already published a number of children's books, he had always wanted to tailor *Research*, the science magazine that he produces at ASU, for young readers. After speaking with teachers and librarians in the various schools he visited, he discovered there was a real need for this, as half the schools didn't have textbooks and the science teachers he spoke to were paying for materials out of their own pockets.

Stuart Lindsay: Stuart Lindsay was looking for a way to look at molecules in liquids and in living cells through a microscope. The researcher at the Biodesign Institute was limited to examining molecules in the air using the microscopes of the early 1990s. In order to do his research he decided to build his own atomic-force microscope, using personal computers and a microfabricated force sensor similar to a phonograph needle to make contact with surfaces.

4. Add water and grow

Storar: Since the launch of *Chain Reaction*, several more issues have been published and reprinted including topics such as "Sonoran Desert Creatures," "Explore the Solar System" and "Urban Ecology." The first-print run for the first issue increased from 55,000 to 150,000 with the last couple issues. Teachers, home-schooling parents, district offices and other education organizations from 45 states request copies of *Chain Reaction*. The magazine has earned national awards as an outstanding publication for young readers. Storar's staff

created an award-winning Web site as well to supplement the magazine and to serve as a forum for educators.

Lindsay: With the market for atomic-force microscopes growing, Agilent Technologies, Inc. bought Molecular Imaging in 2005 and has taken it to new heights with sales more than doubling within their first year of involvement and the number of employees steadily growing. Lindsay's company now holds 25 patents related to atomic-force microscopes.

2. Plan the plan

Storar: *Weekly Reader* was his inspiration for *Chain Reaction*. He recalls receiving his own copy of *Weekly Reader* as a kid in school and getting to take it home. Storar wanted to print a science magazine for 4th, 5th and 6th graders to keep for themselves and for teachers to use as a tool to teach science. The magazine themes would center on Arizona science standards with heavy reference to science at ASU. His goal was for the magazine to serve as a science resource and a window to what was going on in the science world at ASU.

Lindsay: It wasn't until a fellow lab researcher expressed interest in the homemade microscope and asked how to buy one that Lindsay considered creating Molecular Imaging Corp. Doctoral candidate Tianwei Jing helped Lindsay build their first microscope product in Lindsay's back bedroom in 1993.

5. Return on investment

Storar: With AIMS testing in science now mandatory, *Chain Reaction* links topics with Arizona's science standards and helps teachers develop their students' mastery of the required content. Not only does the publication spark an early interest in science, it fosters elementary and middle school students' interest in higher education, and specifically, ASU. Working as a literal chain reaction, the information in the magazine is passed from Storar and his staff to educators around Arizona and the United States to students and their parents, who will have a good idea of what's going on at ASU and

3. Go for launch

Storar: *Chain Reaction* launched in 1998 with help from his staff, art director Michael Hagelberg and senior writer Diane Boudreau. The ASU publication's premier issue was "Watching the Weather" and the overwhelmingly positive response fueled four reprints of the issue totaling 75,000 copies for more than 1,400 teachers at hundreds of Arizona schools.

Lindsay: In Molecular Imaging's early years, Lindsay and Jing embraced a do-it-yourself strategy with Lindsay taking small-business classes to learn how to do the company's taxes. The company was later bought out by several different companies as it struggled to make a profit.

consider it in their future.

Lindsay: Lindsay's collaboration with AzTE, ASU's technology transfer entity that works to license professors' and students' inventions to create spinoff companies, resulted in a netted \$500,000 in royalties for ASU. The greater payoff is that the microscopes Lindsay produces allow for cutting-edge nano-scale research at ASU and other universities around the world. Taking advantage of Lindsay's relationships with ASU and the community, Agilent chose to keep the business in the Valley.

