

MOVES LIKE BOBBY FISCHER | PG. 22
How Anthony Swindell gets kids to say yes to chess.

forward

IOWA STATE UNIVERSITY FOUNDATION

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*Redefining aging
in America*

REDEFINING

AGING IN AMERICA

Memories made
Samantha Creeger (center right) with
her grandmother, Cheryl Creeger.



Recent Iowa State University graduate Samantha Creeger worries about her grandmother. Her arthritis has become so bad that she can no longer reach higher than the first shelf in her kitchen. When she cooks – and she loves to cook – she can be tempted to climb on a chair to retrieve the pans she needs rather than wait for help. Everyone knows it’s a recipe for disaster: Falls are the leading cause of fatal injury among older adults, and among the most common reasons for trips to the emergency room.

Mrs. Creeger’s growing disability could signal a need for assistive services and potentially a move from her current home, a circumstance that is affecting more Americans than

ever before. With 10,000 Baby Boomers reaching 65 every day, the national population is forecast to turn upside down by 2030, with more people over the age of retirement than under it. Individually, they have diverse resources, abilities, preferences and care needs – factors that shift as they continue to age and situations change.

“WE ARE UNDERPREPARED and undertrained to deal with aging,” says Joe Sample, executive director of the Iowa Area Agencies on Aging and current Iowa State doctoral student. “Never before in human history have we had this many older adults on the planet.”

The question becomes, how will we care for them all? The answer, if you ask most older Americans? *We’ll take care of ourselves.*

And if the people in the interdisciplinary gerontology program at Iowa State have a say in it, that answer won’t be hyperbole.



“Since I was a girl, I had this sense that growing older was inherent and unavoidable to all living organisms. What I did not know was how much I would learn and how involved the journey would be. I look forward to continuing to my journey, expecting, with anticipation and exhilaration, the new knowledge and adventures that will enrich the rest of my life.”

SILVIA CIANZIO (AGE 74)

*Professor of agronomy, Iowa State
1970 and 1978 Iowa State graduate
Ames, Iowa*

Optimized for autonomy

Interdisciplinary and collaborative, the gerontology program includes more than 50 faculty members and undergraduate and graduate students from every college working with a range of nonprofit and business partners, as well as the stakeholders themselves: aging Americans. Jennifer Margrett, program director and interim associate dean for research and graduate education in the College of Human Sciences, says all are integral to supporting optimal aging for the whole person. “Most people – 93 percent – want to age in place,” she notes. “They want to make their own decisions. We are researching and innovating new ways to make that happen.”

Alison Phillips, associate professor of psychology, agrees. “Choice is an important concept. To feel and have autonomy is one of the basic needs of humans.”

While the concept of aging in place is hardly new – older adults have always prized the independence that staying in one’s own home brings – responsive technology is revolutionizing its potential. With sensors that can be programmed to warn of a fall risk, to remind you to turn off the stove or take your medication, or to alert your care partners – should you want them to know – that you haven’t gotten out of bed two hours after your normal rising time, living with such technology would be almost like living with an entire support staff.

Whether retrofitted into existing homes or embedded into new residences, the resulting “smart homes” promise not only to support an individual’s current needs, but to adapt and grow with the individual as those needs change.

If some of this sounds pretty futuristic, Professor of Computer Science Carl Chang’s Smart Home Lab will change your mind.

Optimized for independence

Richie Oyeleke conducts the tour. A graduate student in computer science, Oyeleke works with Chang on technologies to predict and prevent adverse events from happening in the home. He highlights a refrigerator that can generate a shopping list when you're low on food, a microwave that can calculate cooking time, automated lights and blinds, tools for medication reminders and fall risk alerts. "Older adults are involved at all stages of our research," he says. "They help evaluate the usefulness of these projects. It's human-centered research to improve the quality of life."

The gadgets are important, but they aren't the whole story. To make the technology truly useful, it has to recognize changes in behavior patterns. To do so, data must be gathered to understand how you live on a daily basis – when you get up in the morning, when you go for your walk – in order to flag a sudden and perhaps dangerous change.

"We use ambient sound, filtering out speech, to infer what anyone is doing," Chang explains. "Sensors record sounds like flushing, rattling pots and pans, doors opening and closing. Are pots and pans rattling at two in the morning? Was the stove turned on but never turned off? Has it been a long time since the toilet flushed?"

Chang says the goal of this "geron-technological" approach is to predict and prevent risk, especially falls. "If your pattern is to go out for a walk at 7 a.m., but today the sidewalks are icy, there's a higher risk you will fall," he says. "An alert can warn you and recommend you not go out at this time."

Chang stresses that no cameras are used to track behavior, but he knows people will have privacy concerns that will have to be overcome. Tera Jordan, associate professor of human development and family studies, says relying on trusted relationships with younger family members will be key. "This age cohort hasn't used technology all their lives, so they are more resistant than younger people," she says. "It will be important to recognize cultural nuances of different ethnic and income groups, as well. My own grandmother uses Skype to visit with family and friends because she trusts us, and we trust it."



SOCIAL CONTACT & SUPPORT SYSTEMS



PHYSICAL HEALTH



HEALTH BEHAVIORS



MENTAL HEALTH



LIFE SATISFACTION



COGNITION

What's optimal aging?
Optimal aging is the capacity to function to your satisfaction as you age in terms of your:



My lifelong philosophy: Keep your eyes, ears and mind open. I'm now reaping those benefits. I can more easily understand new experiences and concepts I encounter. Oh – and always leave yourself some room to maneuver.

PAUL MEYER (AGE 64)

Retired police officer, photographer and farmhand

Winterset, Iowa

Optimized for adherence

While preventing falls and keeping the fridge stocked will help older adults remain in their own homes, assuring that medications are taken when and how they should be is another key area of concern.

"Medication adherence is one of the biggest reasons that older adults end up in skilled nursing facilities," says Carmen Gomes, associate professor of mechanical engineering. She is investigating the use of tiny implantable devices to allow medications to be delivered directly into the bloodstream over time, avoiding the digestive tract where drug interactions occur.

"It will be not unlike a pacemaker, but much tinier," she says. "It will help older people retain their independence."

Imagine never forgetting a pill or taking one with the wrong food or at the wrong time.

Gomes smiles. "I'll be the first patient!"

Optimized for individualization

Samantha Creeger's grandmother may ultimately benefit from a fully equipped smart home but, as you'll recall, her need was more immediate: She wanted and needed access to kitchen items necessary to cook. Creeger, who graduated in May with a master's degree in human computer interaction, had a chance to try her hand at problem-solving the issue during last winter's Innovations in Aging Charrette, an interdepartmental student competition to produce manufacturable smart home products. The competition was made possible with support from the VentureWell Foundation and the Rossman-Manatt Faculty Award that Margrett received in 2018.

While other teams chose to address aging-in-place

challenges such as home maintenance, safety and personal care, Creeger and her teammates – three of whom were industrial design students, the fourth mechanical engineering – worked throughout the intensive weekend to create a moveable three-shelf unit for the kitchen. Concealed under the counter, it rises at the push of a button to allow easy access to contents. It won the overall award.

"The goal was to bring attention to aging and smart home innovation within an interdisciplinary context," says Lauren Stratton, gerontology graduate student and charrette co-organizer. "It was to say, 'Here's what the sustainable and personalizable potential can be.'"

RISE developers **Mehdi Saraeian, Samantha Creeger** and **John Osorio-Torres**. Not pictured: Jonathan Kirner.



Optimized for opportunity

The charrette's community partner was WesleyLife, a central Iowa nonprofit organization that promotes independence and wellbeing for older Iowans. CEO Rob Kretzinger, a 1987 Iowa State graduate in psychology with a gerontology minor, says the need to engage multiple disciplines in solving what Margrett calls "the grand challenges" of aging is imperative. To create a sustainable approach based on individual choice requires all hands – from psychologists and cell biologists to computer scientists and industrial designers – on deck.

"People wait for something to happen in their lives before they kick the tires of a retirement community," he says. "We are still in the decline-and-loss model. WesleyLife's average customer is in their early 80s."

Instead, enjoying an older adulthood that maximizes and extends one's agency requires planning and preparation, no matter what your current age.

"We say, start with the house," Kretzinger says. "Can it evolve with you? We are partnering with Iowa State to apply engineering, computer science and design principles to create smart homes that will evolve and adapt according to people's needs."

WesleyLife has begun design work on 13 prototype smart homes in Johnston, Iowa. "We own the land, have the vision and are developing concepts," Kretzinger says. "Once we have the schematics completed, Iowa State will help us run focus groups with potential buyers to find out if we're meeting their needs," as well as work together on integrating technologies into the homes. "It's exciting to think how Iowa State can apply technology engineering to these houses to help people stay active, engaged and independent."

Newly built homes represent what Kretzinger calls Smart Houses 1.0. The next version, Smart Houses 2.0, are retrofitted existing homes. "It's how we'll take the concept to the streets."

RISE Smart Storage Solutions:
Designed to improve the agency of aging adults within their homes for their peace of mind, and for everyone who cares about them.



Optimized for affordability

If WesleyLife's work with Iowa State in smart home design seems entrepreneurial, it is. A goal is to create designs that are scalable, affordable and replicable. "This is a critical need," Margrett says. "We visited the National Association of Homebuilders and other industry partners, and discovered there isn't a readily accessible model. We want to create one."

Perhaps the rising shelving unit will be among the features included in a smart home. The team's research shows one unit can be built for \$770 using available materials and processes. The ISU Startup Factory, which helps entrepreneurs validate their business ideas, may be the next stop for the team.

"Science, research and student education are at the core of Iowa State's work, but we are also reaching back out with education and products that will benefit Iowans and the rest of the world," Margrett says.

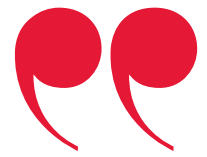
The economic opportunity alone is significant, with older Americans contributing more to the economy than their younger neighbors. In 2015, for example, they spent \$5.6 trillion on consumer goods and services, while those under 50 spent \$4.9 trillion.

"It's a myth that older adults are a drain on the system," Joe Sample says. Further, he points out, it's a cohort that votes. "Politicians need to pay attention: 83 percent of those over 65 vote. Elected officials have a huge opportunity and obligation to pay attention, to make policy that benefits all."

One such policy concerns the availability of Internet access. Smart home technology won't work without it, meaning residents in 90 of Iowa's 99 counties may not be able to age in the place they call home.

"Rural Iowa residents are older and more isolated," Sample says. "They live in a technology desert. Two counties are likely to be classified as Frontier Counties in the next census, meaning you must drive an hour or more just to reach basic services like health care.

"Technology is great, but we've got to get that last mile covered. Otherwise, rural elders can't stay where they want to stay."



To me, aging is a mindset. Even though I'm an official senior citizen, I've never felt better! Staying active has always been a priority, but now I'm more free to work out as much as I want, whether it be at the exercise clinic or walking, biking, paddle-boarding or cross-country skiing.

SANDI WARD (AGE 65)

*Retired occupational therapist
1978 Iowa State graduate
Ames, Iowa*



Optimized for innovation

Smart homes are still in development, both as a retrofit to existing housing and as new residences. They are not one-solution-fits-all, but they will help give older adults more control over their futures, wherever they call home.

“Awareness of the needs of this growing cohort is improving,” Margrett says. “Life expectancy has increased but functional, or active life, expectancy needs to improve. There is a workforce shortage. It’s an interdisciplinary field. To support the goal of optimal aging, we will need to attract many more workers.”

Iowa State is doing its part, Margrett says.

A large-scale, university-wide research team formed in spring 2018 is addressing innovative engineered technologies for optimal, resilient aging.

“Iowa State has been moving toward collaborative and interdisciplinary teams to create the technologies and behavioral initiatives we need. We want to add not just years to life, but quality,” she says. “We want to teach our students a human-centered philosophy that is not one-size-fits-all, but personalized. We want to graduate entrepreneurs who can help us realize the best future.” ■



GIFTS *at* WORK

EXTENDING IOWA STATE'S IMPACT THROUGH PHILANTHROPIC GIVING



➔ **A jewel reborn**
With support from Jason Kogan, Arthur Hilsinger and Barbara Janson, and hundreds of other donors, the newly renovated Brunner Art Museum shines anew.

Photo: Paul Gates

IF WE BUILD IT, THEY WILL, TOO

With donor support, women pursuing majors in science, technology, engineering and math at Iowa State learn to build a bright future for themselves – and for those coming up behind them.

By Susan Flansburg | Photo by Paul Gates



»» Machining queen

Proud to bear the name of an Irish warrior queen, **Maeve McCloskey** tests her mettle in the Johnson-Engel CNC Machining Lab in Black Engineering.

ASHLEY TREVINO REMEMBERS spending many a day watching her father as he drilled, sawed and soldered in his Texas workshop. By the age of 10, she knew what she wanted to do when she grew up: build things.

Hundreds of miles north, young Maeve McCloskey was coming to the same realization. “I wanted to put together anything that came in a box and had to be assembled,” she says. “I installed new sinks and put on door knobs during a remodeling project. My parents were very supportive of me.”

Yet McCloskey remembers others around her expressing incredulity that she wanted to be an engineer. “What bothered me was their shock and surprise. They’d say, ‘You’re studying engineering? That’s really tough!’”

Trevino’s experience mirrored McCloskey’s. “They’d look at me like, ‘You’re a female. A female of color. How are you going to make it?’”

According to Lora Leigh Chrystal, director of Iowa State’s Program for Women in Science and Engineering, these are precisely the kinds of remarks that can undermine women’s and girls’ confidence, creating a feeling that they don’t belong in technically demanding and male-dominated majors or careers.

“Bolstering women’s confidence is key to recruitment and retention in their chosen field,” Chrystal says. “Women choose careers they think they can succeed in. WiSE supports them from all sides, to help them believe in their ability. In all metrics, women in the WiSE program do better than those who do not participate.”

Founded in 1986 by a group of Iowa State faculty and staff concerned about the underrepresentation and underutilization of women in science



»» Full STEM ahead

Donors supporting women in STEM majors are as passionate as the students themselves about putting in place the building blocks to ensure their success at Iowa State and in their careers. The Women in Science and Engineering Scholarship Fund was established to hold contributions from multiple donors designated to support students in WiSE, including the Charles T. Wright Memorial Scholarship that **Ashley Trevino** received, or the support from the Diane Brandt Fund McCloskey received. Other donor-directed funds support study abroad for women in STEM majors, such as the Stanley International Learning and Development Fund and the Mette Lundsgaard WiSE Travel Fund. Such support can provide the extra steam these students need to power them along the way.

To support WiSE go to wise.iastate.edu/giving-to-wise

and engineering, WiSE has since grown exponentially, both in its programming breadth and its impact on the women-in-STEM pipeline.

Donor support for WiSE has likewise grown – for K-12 outreach programs such as the Go Further conference and Student Role Models; programs for undergraduates, including scholarships, leadership development programs and academic support; and overall WiSE program operations.

“Women’s enrollment in STEM majors has increased more than 300 percent, from 1,819 in 1986 to over 5,600 more recently. Overall, women are nearly at parity or even above in some STEM majors,” Chrystal says, adding that other majors such as engineering and computer science, where women make up 16 percent and 10 percent of graduates, respectively, still have room to grow.

Both McCloskey, a senior in industrial engineering, and Trevino, a May graduate in mechanical engineering, credit WiSE with keeping them on the road to success.

“Peer mentors helped me work through my struggles here,” McCloskey says. “I’ve become a peer mentor myself to help other women. And scholarship assistance has helped me focus on my studies instead of my bills.”

“My dad died in 2008, leaving my mom to raise me by herself,” Trevino says. “Receiving the J. Alex Brown Scholarship really helped ease the stress I was under. It also made me feel good to know there are people who support Hispanic women in engineering.”

And when they leave Iowa State to pursue the careers that women even a generation earlier might not have chosen, Trevino and McCloskey will have already succeeded – by extending the road for other women to follow. ■

WIDENING THE PERCEPTION SPAN

With support from the Allen Essman Faculty Fellowship, Joel Geske is helping students to envision the world as it could be.

By Steve Sullivan | Photo by Paul Gates



➔ **Take the VR POV**
Allen Essman Faculty Fellow **Joel Geske** has a vision for bringing emerging technologies to Greenlee students.

JOEL GESKE HAS SPENT NEARLY three decades keeping up with and preparing students for the ever-evolving world of communications. Today, that means understanding how visual technology is being used by businesses and media outlets to engage consumers with their products and content.

That's why Geske, associate professor of advertising in the Greenlee School of Journalism and Communication and inaugural recipient of the Allen Essman Faculty Fellowship, developed a course, launched this fall, on virtual reality and augmented reality.

"These new technologies hit all areas of communication and programs across the school. There are applications for news, advertising and retail. It's redefining things, and we want to make sure our students are ready," Geske says. "Our next generation of students will help formulate these platforms and determine where they go, so it's important to get this into our curriculum."

Virtual reality is the use of computer technology to create a simulated environment, such as the immersive, 360-degree videos many news outlets produce to bring content to consumers that can be far more impactful than print, still photos and even standard video. The New York Times' 360 video series, for example, has taken readers to the Seven Wonders of the World and introduced them to a woman coping with Alzheimer's.

Augmented reality, on the other hand, provides an interactive experience in a real-world environment. One of Geske's favorite uses of AR is an IKEA application that enables customers to place 3D images of IKEA furniture in a space they've scanned with their smartphone.



➔ Ad(ded) value

Approaching 30 years at Iowa State, Joel Geske admits he could have coasted to retirement. Then came the Allen Essman Faculty Fellowship, which honors a faculty member who has demonstrated excellence in advertising and/or public relations education. It reenergized Geske to think creatively. "I wanted the fellowship to benefit the school and students," he says.

Along with the Allen Essman Advertising Scholarship, the fellowship – the Greenlee School's first – was established by 1973 Iowa State alumna Denise Essman in honor of her late husband, **Allen** (pictured above), an instructor in advertising and photography in the Greenlee School. Essman is an Iowa State University Foundation Governor and leads Essman/Associates, a marketing firm.

Using Essman Fellowship funds, Geske immersed himself in AR and VR, including spending time at a VR production company. As a result, the depth of knowledge in VR and AR he's built has enabled him to become the Greenlee School's "resident expert" on these technologies.

Staying current with the forces that shape how we communicate has long been a focus of Geske's career. Always interested in new communication platforms and mediums – he helped launch and teach Greenlee's first web courses – he's been a leader in diversity education at Iowa State, and in 2005 he took over a course on ethnicity, gender, class and the media. As part of the class, students participate in exercises that help them look at media content through the eyes of people different from them.

Developing such an awareness of and appreciation for different perspectives – much like learning how to use VR, AR and other new technologies effectively – is vital for all professionals entering the workforce, Geske says, regardless of their ultimate career path.

"Many of these students will move up into management positions. If you can get them to start thinking about such issues and asking questions now, you're having an impact," he says. ■

📌 TO DONATE

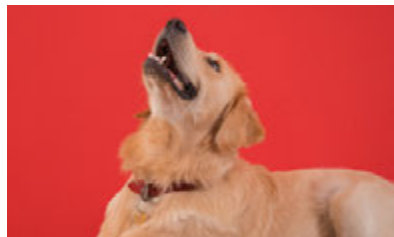
To learn more about how you can support scholarships for students across all areas, go to www.foundation.iastate.edu/giveonline.

NEWS

POWERFUL PROFESSORSHIPS

Competition for exceptional faculty in the field of veterinary medicine is fierce. A recent gift of \$1.5 million by Lora and Russ Talbot to establish the Lora and Russ Talbot Endowed Professors in Veterinary Medicine will enable the College of Veterinary Medicine to recognize top performers whose contributions are key to the college's success and retain up-and-comers who are building their reputations at Iowa State.

"These professorships will enable the college to compete for high-quality faculty and ensure these experts provide cutting-edge clinical services, develop dynamic classroom curricula and pursue groundbreaking research in the College of Veterinary Medicine at Iowa State," says Dr. Dan Grooms, Dr. Stephen G. Juelsgaard Dean's Chair in Veterinary Medicine. "We are so grateful for Lora and Russ Talbot's visionary support in creating these professorships."



Four of the winners of this year's Data Mining Cup: (From left) Yueying Wang, Xingche Guo, Yifan Zhu and Qinglong Tian, all statistics Ph.D. candidates at Iowa State University.

Photo courtesy of data-mining-cup.com

Who can we count on to combat fraud? Iowa State students

Beating 149 teams from 114 universities in 28 countries to take home the top prize at the 20th annual Data Mining Cup is no small feat. This past year, a group of 12 Iowa State graduate students in the departments of statistics and industrial and manufacturing systems engineering did just that, blowing away the competition.

Data mining is the process of discovering patterns in large data sets. For the Data Mining Cup, teams were tasked with creating a mathematical model to detect cases of fraud at self-checkout stations in grocery stores without putting innocent customers through unnecessary inspections.

In addition to Iowa State's first-place team, a second group of students took home eighth place. All participating students took Kingland Data Analytics Faculty Fellow Stephen Vardeman's Modern Multivariate Statistical Learning course last spring, learning the methodology necessary to win such a prestigious competition.

Qihao Zhang, the first-place team leader and doctoral candidate in statistics, says, "Being awarded the top prize is a great honor to me and all my teammates, and this win gives us more confidence for our professional paths. This is also a good opportunity for us to pay back our departments and Dr. Vardeman."

NOTABLE QUOTES



Photo credit: The image is from the winning team, the Cherry Sisters, which consisted of: Kira Mann (graphic design), Olivia Klocke (interior design), Alyssa Mullen (architecture), Cynthia McCall (architecture), Mayli Grady (industrial design) and Meshallah Muhammad (interior design).

THE STORY OF OUR JUDICIAL HISTORY COMES TO LIFE

"This project gave us the experience of having to become experts in a company or industry outside of our own to properly address a client's needs and capture what they stand for, which is hard to replicate in a typical classroom setting. We were fortunate to have the Iowa Judicial Branch trust us with the challenge of interactively educating visitors on the story of our judicial history, how the branch works and who the faces of the branch are, and demonstrate the multitude of ways it serves Iowans – a challenge that required thorough research and thought, as our designs would be placed in the Iowa Judicial Building, where words and meanings are deeply contemplated."

— **Olivia Klocke**, a senior in interior design and past recipient of the Debra L. Furman Pulver and Robert G. Pulver Study Abroad Scholarship, who participated in a design studio this past spring in which teams of students created unique design concept proposals for the Iowa Judicial Branch. As the Iowa Judicial Branch Building shifts from physical to digital files, the students' proposals focused on turning the now-vacant space into an experiential learning center for the public. Klocke's team, whose proposal was selected as the top proposal, designed interactive consoles through which visitors could learn about eight of Iowa's landmark cases.

Olivia Klocke



DURING THE 2018-19 ACADEMIC YEAR

MORE THAN
32,000
DONORS
to Iowa State University

MORE THAN
\$181
MILLION COMMITTED
to Iowa State

A RECORD
\$104.1
MILLION TRANSFERRED to benefit
students, faculty, facilities and programs

PEOPLE

DEBRA MARQUART'S NEXT CHAPTER IN VERSE

At the age of 24, Debra Marquart was living the rock 'n' roll dream, traveling the country as a singer in a band. That all ended when the band's rental truck caught fire, destroying \$60,000 worth of equipment. Though no one was hurt in the fire, the band lost all its instruments and gear and didn't have insurance. About a year later, they disbanded, and Marquart had to find another outlet for her creative energy.

That something turned out to be writing. In 1991, she arrived at Iowa State University with support from a fellowship and received her master's degree in creative writing two years later. She then taught briefly at Drake University but returned to Iowa State to teach in 1995, the same year her first book of poetry was published.

Recently, Marquart, a Distinguished Professor of English and the Liberal Arts and Sciences Dean's Faculty Fellow in the Arts, was appointed by Governor Kim Reynolds to serve as the Iowa Poet Laureate. In this role, she plans to hold workshops and readings at libraries, schools and community centers across Iowa to share stories and encourage others to share theirs.

Marquart never gave up making music. Today she's a member of The Bone People, an unplugged rhythm and blues group that helps her bring her poetry to life.



Debra Marquart

Contributed photo



Photo: Paul Gates

MEET EMERGING PHILANTHROPISTS DAVID AND CHRISTINE SLUMP

David and Christine Slump, both Class of 1991, believe so strongly in Iowa State and its people that they've given generously of their time, expertise and funds to help it continue to be a world-class university. They exemplify the impact alumni can have at Iowa State and were recognized with the Iowa State University Foundation's 2019 Emerging Philanthropist award in October.

What does this award mean to you?

This recognition means that hopefully we are making a significant difference in people's lives, education and career development just as other people have done for us. It also means that our energy and actions are helping Iowa State garner the reputation and impact outside of Iowa that it deserves. Finally, we hope it inspires other alumni to be engaged in organizations and with students on campus.

What is your philanthropic philosophy?

Philanthropy means giving back to those who helped us be in a position to do so. We both believe in a "1+1=3" approach to philanthropy, meaning time plus money has more impact and fulfillment for both parties involved. Christine having been a teacher and David's innovation- and transformation-oriented approach to business fits well with our engagement with PrISUM, the ISU Solar Car Team, as well as the Student Innovation Center.

GIFTS

How now, Holy Cow!

In July 2018, Chuck and Margo Wood traveled to Kamuli, Uganda, for the dedication of the Mpirigiti Rural Training Centre, part of Iowa State's Center for Sustainable Rural Livelihoods. While on a walking tour of the livestock demonstration area, they noticed that the cattle pen contained a single cow, which was "on loan" from a local farmer. The Woods immediately lit up, sparked by a memory from 1958 when Chuck, then 17 years old, showed the grand champion steer (aptly named Holy Cow) at the International Livestock Exposition in Chicago – an extraordinary achievement for an "Iowa farm boy doubly afflicted with an asthmatic attack and a broken leg," noted a story in the Des Moines Register.

As they stood next to the loaner cow, the Woods decided to gift the training center with a cow of its own as a memorial to Chuck's grand champion. In October 2018, a pregnant heifer was purchased for Mpirigiti, and she delivered her first calf. The new Holy Cow and her calf are being used for milk production and training, including demonstrations of deworming and spraying – knowledge that will help local farmers improve their economic well-being and food security.



Photos: Paul Gates

SCHEMAN SEES THE LIGHT

What do the Metropolitan Opera House in New York City, a Louis Vuitton store in Paris and Iowa State University Museums have in common?

The presence of a constellation of Lobmeyr chandeliers, whose sparkling lights of handcrafted Swarovski crystals were created by J. & L. Lobmeyr, an esteemed glassware company in Vienna, Austria.

University Museums recently acquired the three chandeliers through the generosity of Joyce Brewer, a 1953 graduate in applied art and a prolific art collector who passed away in 2018 and bequeathed her entire estate to University Museums. The Joyce Tomlinson Brewer Fund for Art Acquisition will enable Museums to acquire world-class art like the Lobmeyr chandeliers, which are prominently installed in the Scheman Building's atrium.

Brewer's estate also included a collection of objects from native Southwest American Indian tribes, including pottery and jewelry. The breadth of ceramics and baskets that she collected is especially important to remembering the culture, period and place in which they were created. Objects such as these further extend Iowa State's land-grant mission as they are used for teaching students and citizens of Iowa and beyond.

Met Chandelier,

designed 1963–66, made 2019
First public presentation, 1966
Designer: Hans Harald Rath (Austrian, 1904–1968)
Manufacturer: Lobmeyr Werkstätten (Austrian, 1823–present)

Aluminum, brass, steel, Swarovski crystals and pearls
Commissioned by the University Museums. Acquisition made possible by the Joyce Tomlinson Brewer Fund for Art Acquisition. In the Art on Campus Collection, University Museums, Iowa State University, Ames, Iowa. U2019.150-152



MOVES LIKE BOBBY FISCHER



▶▶ Anthony Swindell gives pointers to Cruz Morales (far right), age 8, with an assist from Kendall Jansen, age 9.

THREE AND A HALF YEARS into his experience as a mechanical engineering major at Iowa State University, Anthony Swindell made a two-pronged discovery: Entrepreneurship was fun. And he was good at it. He co-founded a videography company, Up The Ante Productions, and worked on it as part of the 2018 CyStarters summer cohort. When he decided to switch his major to entrepreneurship, Swindell also increased his involvement in a company he had grown up with: Chess Utopia, founded 25 years ago by his father in his hometown of Grayslake, Illinois, to teach elementary and middle-schoolers the art of chess. So how does he get kids to say yes to chess?

Research shows chess enhances children's intellectual growth, which parents buy into. But how do you overcome the nerd factor with kids?

The tide has turned on the chess nerd factor. It's now cool to be on the chess team. Students wear their chess club T-shirts to school and feel good about being part of a community.

By Karol Crosbie
Photo: Paul Gates

How do you use the entrepreneurial skills you've gained as a student?

Entrepreneurship is an investment; once you know how to take an idea and execute it, you can do that with just about anything. I prepare lesson plans for the 10-week course; I recruit and train coaches and build a good experience for them, the students and the parents; and I organize tournaments. I wear lots of hats.

How do you know when you've had a breakthrough with your students?

When they can win without gloating and lose without crying, when they can analyze outcomes and imagine possibilities, when they think things through before they make a move – then we've all succeeded. I ask my students to play with no chess pieces, and they can get up to seven moves, just by imagining and remembering. It's super impressive.

What's your next move?

After I graduate, I plan to stay in Ames and devote half my time to Up The Ante and half to Chess Utopia. When I started teaching chess here in 2016, we had 24 students; now we have more than 120. I feel part of a community that really values what I'm doing.

Learn more at www.chessutopia.org.

Illustration: Evanny Henningsen

WAYS TO GIVE

➔ The Iowa State University Foundation can help you give a gift that moves lives forward.

Dr. Mike and Maria Westfall



Mike and I arrived at Iowa State in 1973, both coming from smaller towns in Iowa. The great education we received at Iowa State served as the foundation for our careers. We took advantage of several leadership opportunities on campus and made lifelong friends. Our children benefited from these experiences as they became the next generation of Cyclones. As an RA, our daughter saw how often her students were taking on a lot of school debt. We wanted to ensure that students from smaller Iowa towns have the same opportunity for a great education as well as a chance to be a leader – both foundations for successful careers.

– **MARIA**, 1977 chemical engineering, and **DR. MIKE**, 1979 Doctor of Veterinary Medicine, **WESTFALL**. The Westfalls established two scholarships at Iowa State – the Maria and Dr. Michael Westfall Leadership Scholarship in the College of Engineering, and Maria and Dr. Michael Westfall Veterinary Medicine Leadership Scholarship. They are members of the Order of the Knoll President's Circle and ISU Alumni Association.

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Summit explores civility

In September, more than 200 industry professionals, community leaders, educators and students gathered for the second annual Greenlee Summit to discuss strategies for fostering civil discourse. The event was made possible in part with lead support from the Kerry and Linda Killinger Foundation.

Photo credits: Maria Charbonneaux and Melanie Van Horn



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