the Flight
The Texas Tech University Honors College Alumni Newsletter

Honors College Student Sivateja Pati Researches And Creates 3D Printed Child's Prosthetic Hand

By **Glenys Young**

(reprinted with permission from the original Texas Tech Today publication on May 17, 2018)

As an Honors College Undergraduate Research Scholar, Teja has been working closely with Honors professor Dr. John Carrell on this project and presented his work at the National Collegiate Honors Council annual conference in Boston, MA in November.

SIVATEJA PATI SAYS HE WILL CONTINUE TO REFINE THE DESIGN MOVING FORWARD.

Eight-year-old Toby Carrizales loves Spider-Man.

Spider-Man's true identity, Peter Parker, is more than he seems. He is a man who lives to save others, a man who has great power – and therefore, great responsibility – in his hands.

It's understandable why Toby, who was born without a left hand, idolizes him.

Late Friday afternoon, Toby – in a full-body Spider-Man costume, mask over his head and eyes visible through its slits – became a little more like Spider-Man: part human, part superhuman.

Sivateja Pati, a biology major at Texas Tech University, presented Toby with a custom-made, Spider-Man-patterned prosthetic hand he designed and 3D printed for the boy, using the Makerspace in the University Library.

THE BEGINNING

Pati, who goes by "Teja," has been on the health care track for a long time. He was involved in Health Occupation Students of America at Seven Lakes High School in his hometown of Katy, Texas, and shadowed physicians at four different medical centers throughout his junior and senior years. The same month he graduated, he joined the community volunteer fire department as an EMT.

After starting at Texas Tech in fall 2016, Pati joined the American Medical Student Association. So it's no surprise that he intends to go to medical school once he graduates – and he's even speeding up that process. Though he's just finishing his second year at Texas Tech, 20-year-old Pati is already a senior by hours.

As an aspiring physician sometimes does, Pati was scrolling the National Institutes of Health (NIH) 3D Print Exchange database one day when he stumbled across a 3D printable file comparing a healthy brain to the brain of a person with Alzheimer's disease.

"I wanted to see what was being done with 3D printing in medicine, because something like this would be great to have in biology classes or medical school," Pati said. "In the program, you can actually slice the brain in half and print off two halves and show your students the structures inside. As opposed to a picture, you can say, 'Here, touch it.'"

The brains were some of his earliest 3D printing endeavors. Also on the NIH database, he found designs for a prosthetic hand from an open source group called e-NABLE, which shares designs for affordable prosthetics. Pati downloaded some of these designs, brought them into the Makerspace and, with the help of Makerspace specialist Sean Scully, 3D printed a hand to show in class for a persuasive speech on the need for an e-NABLE group in Lubbock.

"If you were to look at a map of the state of the closest e-NABLE communities, you have one in Austin, San Antonio, somewhere near Dallas and one in New Mexico. In the middle is Lubbock, about 300 miles away from each other place," Pati said. "That's a big circle with no one to actually do anything. It's the same thing with University Medical Center – they're the only Level 1 trauma center from here to those major cities. If someone happened to get in a life-threatening incident, they'd need to come here. If someone needed a 3D prosthetic hand, they'd have to go 300 miles the other way."

The speech inspired Pati to take action, so he began working to start a 3D printing club through the Makerspace, a branch of which would focus on prosthetics.

Shortly thereafter, in early December, Scully got a call out of the blue from a woman named Anna Carrizales, who said, "I hear you make hands for people – will you 3D print a hand for my grandson?"

Scully told her they could, and if the library could pair her up with a student or a member of the Texas Tech community, it probably could be done for free.

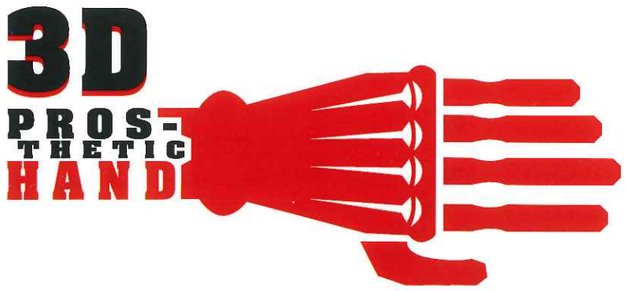
"'I can at least point you to one student who I know has already printed something similar,'" Scully recalled telling her, "and that was Teja."

THE RESEARCH PROJECT

Although the project would involve far more engineering than the biology major was accustomed to, Pati agreed to take on the project because of its interdisciplinary nature and the role that sort of work has in the field he aspires to enter.

"When I think of medicine, I don't think of just a doctor with a stethoscope giving someone a shot. I think of a person who cares about who they're treating, who they're helping. It's someone who isn't just fluent in medicine, but in everything that can support medicine," Pati said. "There are projects such as 3D printing a kidney or a heart. Those are fantastic in and of themselves, but as a student, you'd need special 3D printers, special filament, you'd need money to buy all of that stuff. We are using what we have already to improve someone's quality of life."

While Pati was working on the project, however, the Makerspace had to begin charging a nominal fee to cover materials for personal projects, so Scully urged Pati to turn it into a research project, which would be free. Pati, already a student in the Honors College, connected with John Carrell, an assistant professor of engineering in the college who became



Pati's Undergraduate Research Scholars (URS) adviser.

With Carrell's expertise in engineering and Scully's expertise in computer-aided design and drafting, Pati was able to customize the open source design to fit Carrizales' grandson, Toby.

"We used our 3D-scanning capabilities here in the Makerspace to scan Toby's arm, then we were able to 3D print it so he wouldn't have to come in constantly," Scully said. "Some of the parts need to be form-fitted, so we have to heat them up and mold them. Because we were able to establish it as free, printing a large arm didn't seem to be too expensive.

"We have a structure scanner that attaches to the iPad. It's hard to get an 8-year-old to sit still long enough, but we got a really good scan. Then, we were able to print that out so Teja could go and form the pieces around that."

The actual fabrication of Toby's hand took two to three months, but Pati's process has been much longer, Carrell said.

"He's had to print his first large hand and see how the mechanisms work and how to put it together, and there's all sorts of troubleshooting that go into optimizing the 3D print process," Carrell explained. "He's done a lot of the initial work, and then the actual work as far as getting Toby's hand put together and the Spider-Man accents."

THE NEXT STEP

As Toby practiced grabbing dry erase markers, a roll of paper towels and a water bottle, Pati explained Toby's new hand is only the first step in a much longer research process.

"This hand has a grasp-type motion," Pati said, demonstrating how the angle of the wrist determines whether the plastic hand is open- or close-fisted. "My research focuses on a pinch grip."

The pinch grip, using the index and middle fingers and the thumb, is still in the design phase, but Pati is confident.

"He'll eventually be able to pick up small, flat things," Pati said.

Carrell and Pati want to maintain some sort of mechanical method to switch between the grasp and pinch grips. Not only is that a simpler method than an electronics-based solution, but it's also a more reasonable option for Toby's family.

"There are all sorts of things you could put on it, gyroscopes or little Arduino boards that could give more functionality or feedback, but it becomes more cost prohibitive, especially for Toby, who's going to be growing up and will need hands to grow with him," Carrell said. "Keeping it on the mechanical side, we can print a hand for about $20. For all the electronics, it would be much more expensive."

It's a consideration many parents can identify with.

"With my kids, we're having to buy them a new pair of shoes every couple months," Carrell said. "I imagine it would be the same kind of process with a hand. If you don't have the means to buy an expensive prosthetic, there's probably times when you have to make do with what you have, and then you go without sometimes."

THE IMPACT

When Toby was 4 months old, he received his first prosthetic, Carrizales said. In tears, she said the way he studied his new hand reminded her quite forcefully of his initial fascination with the first.

"It was more like a doll hand," explained Toby's mother, Desiree Lopez. "It didn't serve any purpose, it was more of a cosmetic thing. He didn't like it, so we maybe put it on him twice.

"He hasn't had anything else until now."

While Toby is still a little in shock, Lopez said, he has big plans for life with his new hand.

"He mentioned throwing a football," she said. "He's trying to learn to ride his bike without training wheels and he was having trouble balancing while holding on with just one hand. Now he can use this to grip the handlebars."

Although Toby never let life with only one hand slow him down – he already has been taking piano lessons for years – Lopez said she appreciates how many more possibilities he has now.

"When I saw him pick up a ball on Friday, that's something that's so simple, but he's never been able to do that," she said. "Seeing that made me really emotional because I never thought I'd see him do that. I can't imagine how he must feel."

And the fact that his new hand looks like Spider-Man is an added bonus.

"It just makes him feel like a superhero," Lopez said. "It's like a super power for him."

Scully said the hand's appearance plays a big role in that.

"There's the stigma that's attached to having a disability and feeling that you're less," he said. "Dressed up as Spider-Man with a Spider-Man hand really flips that on its head. He goes from someone who has to deal with this thing to someone who can show off. That's a very different dynamic in terms of how you approach learning and your outside community and everything."

Thanks to Pati and the Makerspace, Toby doesn't have to go without anymore. As he picked up a stress ball, turned to his grandmother and released it into her open hand, a grin began to spread across his face.

"That was rough," Scully admitted. "It was hard not to cry, especially once he was able to pick things up. He was able to figure out so fast exactly how that works. Right now, it's such an early stage of the prototype, I can't imagine what he'll be able to do as Teja moves forward.

"This is one of the things I wanted to do with this Makerspace: affordable prosthetics for kids, interacting with the community and advancing the technology on a local level. I think that's what makerspaces are all about. And fostering people who are excited about it and giving them the resources to follow through. I think that's how most big innovations happen."

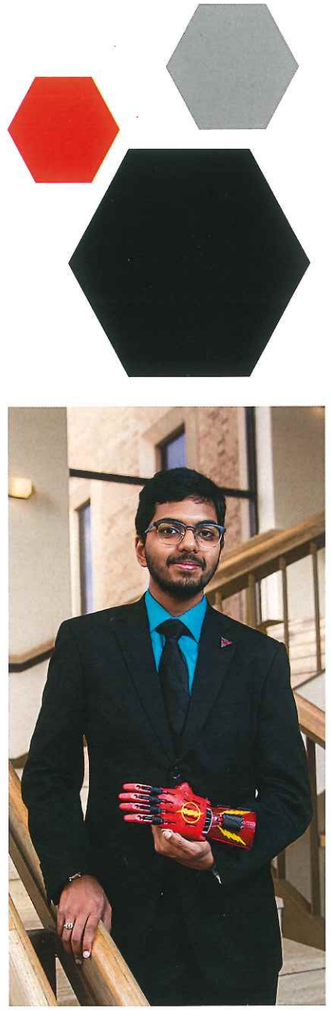
Watching his young friend, Pati said the results were well worth the effort he put in.

"I was just elated; I was so happy he got the motion," he said. "These things might take one to two weeks to get the full motion. When we grab something, we pull and our wrist pops back. His hand requires him to push forward. Because his other hand is fully developed, the motion opposes what comes naturally to him. But the fact that he was able to pick up a ball almost immediately was surprising.

"It's the first time I've ever done something like this. I'm glad it turned out the way it did. This is going to become a part of him. We may change our clothes or our hairstyles, but a prosthetic device is something you live with for months."

The project also was a first for Carrell, who enjoyed seeing Toby use his new hand.

"It's probably a more rewarding type of research experience for Teja," Carrell said. "A lot of times you get to do the research and you may understand the implications of it, but you don't get to see it applied. He gets to see it applied."



A MESSAGE FROM THE DEAN

WORDS OF WISDOM

DR. MICHAEL SAN FRANCISCO

DECEMBER 1
2018

CHANGE! Change has been part of our existence from the beginnings of the Universe to the evolution of life. Sometimes change is right at home, and this year we have the retirements of professors Jim Brink and Gary Elbow. With these retirements we have over 90 years of academic experience that will now be a part of our legacy. These individuals, have, in their inimitable ways, changed the lives of thousands of students and peers. They have influenced us within and outside the classroom, from process to protocol and policy. We are forever grateful, and we wish them well as they take some time for themselves and their families.

As we live our lives, we influence and change people and place, in many ways, sometimes for good, and sometimes without considering or knowing the outcomes. Mahatma Gandhi encourages us to, "be the change you wish to see in the world". I wonder how often we consider the impact of our actions on others and the environment. As teachers in the classroom, we sometimes can see this change happening in virtual real time. In my 28 years in the classroom, teaching virtually every semester, I have never been more impressed with the "change" and thoughtfulness of the students in my freshman class this fall. We covered a broad array of topics and readings (Von Humboldt, Darwin, Muir, Thoreau, Lopez), around the biogeography of the Galapagos Islands and Alaska. Barry Lopez, who is a bi-annual visiting scholar, from NW Oregon, spoke to my students about his travels and interactions with the land, and indigenous wildlife and peoples. He talked about change; change in our lives with technological influences and changes in the environment and among the natives of these "wild" lands. I asked my 17 and 18 year old first year students to reflect on what Barry Lopez's words meant to each of them personally.

Here are some excerpts of what they noted: "Lopez's work makes you reimagine places…his life is as a movie…"; "His wisdom springs from his travels, he approached other cultures with a listening ear…his humble example is a better teacher than coming into the classroom and telling us how to act"; "I wonder how we should intervene with counter-minded people"; "I thought traditional cultures were behind…I should start focusing on being there for the people..."; "…made me aware of my treatment of people in my daily life"; "open-mindedness is exactly what we as a society need to strive for"; "Travel… also for cultural and social expansion, and the growth of understanding"; "..being humble… the best way to learn is not to assume"; "…helped me realize the ways that society can grow to become more unified"; "…got me thinking… of living in my own life by welcoming everyone..."; " the idea that different generations can work together to solve Earth-threatening issues"; "Barry Lopez carried a sense of enlightenment… and how we can protect our future with our ideas and beliefs…staying in the past gives us no room to grow"; "… what I took most to heart was by listening to others was the best way ..when it really counts"; "It takes a lot of humility to admit being the weaker person"; "what can I learn… not what can I say"; "Love those around you, and don't get caught up in your own self-centeredness".

These are our students, and in their minds, hearts and actions is the CHANGE that lies ahead.

M San Francisco

Michael San Francisco

New Endowed Scholarship

– DR. JAMES E. BRINK HONORS COLLEGE FRESHMAN SCHOLARSHIP

The Texas Tech University Honors College is incredibly grateful to Dr. Jim Brink for his generous endowment of a scholarship. With Dr. Brink's generous support, a scholarship to support an incoming freshman in the Honors College, with preference for a student majoring in Honors Arts and Letters, will now be awarded to one of our deserving new scholars. We thank Dr. Brink not only for having shared his immense wisdom and inimitable appreciation of all things arts and humanities with the university, but also for ensuring that he will continue to enrich the lives of generations of Honors College students to come through this scholarship.

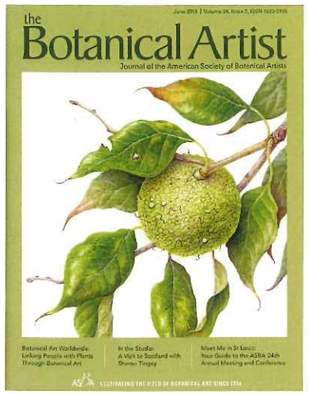
For more information on how to contribute to the Dr. James E. Brink Honors College Freshman Scholarship or to support the Honors College, please visit: ***http://donate.give2tech.com/?fid=41AV-44-9356***

– DRS. GARY AND MARGARET ELBOW – ADOLPH R. HANSLIK SCHOLARSHIP

The Texas Tech University Honors College is incredibly appreciative of the generosity of Drs. Gary and Margaret Elbow who endowed a scholarship in the Honors College and sincerely grateful to Adolph R. Hanslik who matched that donation. Thanks to the Drs. Elbow's and Mr. Hanslik's belief in our students and incredible munificence, the Honors College is pleased to announce a new scholarship for Honors College students who have completed a minimum of 30 hours at Texas Tech and demonstrates financial need, as evidenced by the Free Application for Federal Student Aid (FAFSA). Students must be in good academic standing in the Honors College

For more information on how to contribute to the Drs. Gary and Margaret Elbow – Adolph R. Hanslik Scholarship or to support the Honors College, please visit: ***http://donate.give2tech.com/?fid=41AV-44-9356***

FACULTY FOCUS



FOCUS **01**

Dr. Susan Tomlinson Wins International Awards for Botanical Illustrations

The artwork of Dr. Susan Tomlinson was selected by an international jury to be featured in Botanical Art Worldwide: America's Flora and the American Society of Botanical Artists 21st Annual International. Dr. Tomlinson was also awarded the "Richmond and Lili Bates Award for Excellence in Recognition of an Artist by a Fellow Artist". Her work was also selected to be featured on the cover of the June 2018 issue of The Botanical Artist: The Journal of American Society of Botanical Artists.

FOCUS **02**

Dr. Allie C. Smith Awarded the Alumni Association New Faculty Award and the Lawrence Schovanec Teaching Development Scholarships

Dr. Allie C. Smith was recognized for her outstanding mentoring and teaching with the Alumni Association New Faculty Award at the Faculty Convocation in Spring 2018. Dr. Smith was also selected as one of the recipients of the Lawrence Schovanec Teaching Development Scholarships to attend a conference dedicated to teaching and learning.

FOCUS **03**

Professor Kurt Caswell Publishes Book on Laika, the Soviet Space Dog

Professor Kurt Caswell's newest book entitled, Laika's Window: The Legacy of a Soviet Space Dog, profiles the scientists behind Sputnik II and studies the political climate driven by the Cold War and the Space Race that expedited the satellite's development. Caswell argues that Laika's flight serves as a tipping point in space exploration "beyond which the dream of exploring nearby and distant planets opened into a kind of fever from which humanity has never recovered."

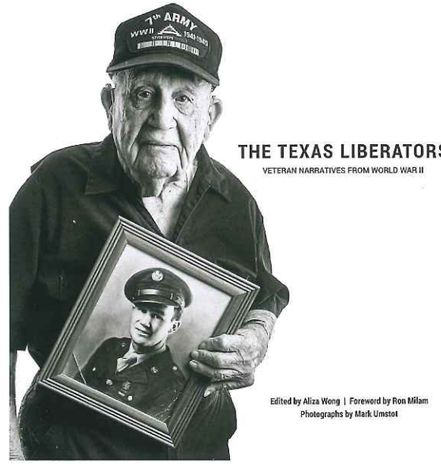
FOCUS **04**

Dr. Aliza Wong Named One of YWCA's Women of Excellence, Receives Texas Tech Academic Achievement Award, and Publishes Two Books, The Texas Liberators: Veteran Narratives from WWII and Spaghetti Westerns: A Viewer's Guide

Dr. Aliza Wong was recognized for her work in social justice as one of the YWCA's Women of Excellence in 2018 during a ceremony at the Civic Center in the spring. As well, she was awarded the Texas Tech Academic Achievement Award for excellence in research, teaching, and service. As well, Dr. Wong edited a volume containing excerpts from oral histories collected by the Baylor Institute for Oral History of WWII veterans who were present at the liberation of the concentration camps, and most recently, issued a viewer's guide on Italian conceived films on the American West.

FOCUS **05**

The Texas Liberator: Witness to the Holocaust Exhibit Travels Across the State of Texas



The Texas Liberator Project and its accompanying exhibit, a project led by Dr. Aliza Wong with the collaboration of Texas Tech faculty and students, including Honors College alumnus, Chad Campbell, is opening throughout Texas. It opened at the Holocaust Museum Houston in Fall, 2018; is currently showing at Eastfield College in Dallas and the U.S.S. Lexington Museum in Corpus Christi; opens at the Midland Historical Society Museum in February 2019 and the Dallas Holocaust Museum in Fall 2019, and at the George H.W. Bush Presidential Library in College Station in 2020.

HONORS ALUMNI SPOTLIGHT

TAMMY DUNN, IP Litigator and registered patent attorney with the U.S. Patent and Trademark Office

I became an attorney seemingly by accident. I did not have parents in the field; I did not even know an attorney or anyone who wanted to be an attorney when I decided to go to law school. By my junior year in college, I was entrenched in the biology department, studying subjects like genetics, botany, and animal behavior. The thought of law school had never even crossed my mind. But as life had it, the summer before my senior year I decided that instead of going to graduate school to study plant population genetics and ecophysiology or something similar, I would go to law school. Not entirely sure what I would do with a law degree, I knew wanted to find the space where science and law intersect.

Though it was not an easy decision, my experience in the Honors College helped confirm I had chosen the right path. The Honors Political Science class I took was particularly influential, which I found a bit ironic since I had put off completing my political science requirements for most of my undergraduate career, thinking the classes would be boring. Anything but boring, the professors ingeniously and creatively gave "behind the scenes" perspectives that not only made the subject come to life, but also gave me critical insight as I prepared to go to law school not yet knowing whether it would be the right fit for me. The Honors College also had an unequivocal entrepreneurial spirit, which was exactly what I needed as I moved towards law school in a somewhat non-traditional way.

These fond Honors College memories were my last at Texas Tech. I graduated that semester and went to law school, where, to my surprise, I found a passion for the courtroom. I became an intellectual property attorney, which means I represent companies in maintaining, enforcing, and challenging intellectual property rights including patents, trademarks, copyrights, and trade secrets. I found the space where science and law intersect and I love what I do. I wake up to new and interesting challenges every day. I am a partner in a leading international intellectual property law firm, am married to the love of my life (Drew), and we live on a mountain where we raise and breed miniature donkeys. Life is good.

I am grateful to the Honors College for inspiring me to continue on the path that led me here.

1 WHAT IS YOUR FAVORITE HONORS COLLEGE MEMORY?

My favorite Honors College memory is taking political science from the then acting Chancellor John T. Montford – he really brought the subject to life with inspiring guest speakers and an approach unlike any other political science class I had ever taken.

2 WHAT IS YOUR FAVORITE BOOK YOU READ IN AN HONORS COLLEGE COURSE?

Candidly, I cannot recall the title of my favorite book I read in an Honors College course, but I know I enjoyed the books assigned in Honors College courses.

3 WHAT ADVICE WOULD YOU GIVE A CURRENT HONORS COLLEGE STUDENT?

A piece of advice I would give a current Honors College student is to savor every moment of life, starting now—don't wait for life to begin once you accomplish one goal or another, take charge of your life now and start living it to the fullest. Also, if you want it, go for it with all you have. Saying "yes" instead of "no" to what life has to offer, even if you are not sure how it will turn out, may not guarantee certain results, but will guarantee that you were a full participant in your own life.

HONORS CONNECTIONS

STUDENT TO *ALUMNI Q&A*

Adrian Falco is a senior biochemistry major who was recently accepted to the Early Admissions Program at the TTUHSC. He will be starting medical school next fall.

Amanda Miller graduated from the Honors College with a major in biochemistry and is currently a student in the UCLA/CalTech M.D./Ph.D. program.

Adrian

Where are you now and what are you doing?
[smiling, already knowing the answer]

Amanda

Well, I graduated from Texas Tech last May, and since then I went on a medical mission trip to Guerrero, Mexico, fixing cleft lips and palates in their pediatric population. After that, I spent a couple weeks at home with my family and then moved across the country to Los Angeles to start the UCLA/CalTech M.D./Ph.D. Program. I completed a short (one month) research rotation before classes started. We were trying to engineer alginate microparticles carrying a TGFb inhibitor to the site of a tumor to fight cancer, with debatable success haha. And in a couple weeks I can hardly believe it I will be done with Block 2 of med school (fingers crossed finals go well!).

Adrian

How did being in the Honors College prepare you for where you are now?

Amanda

The Honors College was really my home while I was at Texas Tech. It gave me so many opportunities to find what I was truly passionate about and a way to get plugged in to the community. Some of those experiences challenged me to be a leader, to serve, to think creatively, and to find my own voice. And by the end of my time at the Honors College, I was prepared to design and conduct research projects and to learn in a way that enriches my perspective not just my knowledge.

Adrian

What do you miss most about the Honors College?

Amanda

Honestly, I miss the Honors College a lot! I think the best part of the Honors College is the lovely people who make it up. I met some of my closest friends, best advisors, and favorite professors in the Honors College – I even met my soul mate there! So I'd say a big piece of my heart is still there in Lubbock, but I hope to make all of those people proud even from here in LA.

Adrian

What would you say to someone just beginning their undergraduate experience in the Honors College?

Amanda

For anyone just joining the Honors College and starting at Texas Tech, get ready for the best years of your life! Do everything you can to get involved and expose yourself to the wonderful class options, organizations, and opportunities there and be prepared to learn and grow in ways you never have before. College is about so much more than completing a degree, it really is about finding who you are and what you believe in, and I know the Honors College and all it has to offer will help you do that just like it did for me.

THE HONORS COLLEGE THANKS
Dr. James E. Brink and Dr. Gary Elbow for Decades of Service to the College and Texas Tech University

Dr. James E. Brink retired in May 2018 although he can still be found before dawn waxing poetic on art, history, and literature in his office in McClellan Hall. Dr. Gary Elbow retired in December 2018 and plans to continue his life as a geographer Indiana Jones and mapping out undiscovered lands in Italy, Lubbock, and other exciting locales. Dean San Francisco asked both of our esteemed retiring faculty members to give the commencement speech at the Honors College Medallion Ceremony. What follows are transcripts of their talks:

Medallion Ceremony
DECEMBER 13, 2018

My Swan Song
Dr. Gary Elbow

This is my swan song, my last appearance before a Texas Tech University student group, and it could not be a better group to go out with. One of the joys of my years at Texas Tech has been to teach Honors students like you. So, I want to thank you for the memories (and thanks to Bing Crosby) and congratulations to you on the completion of your undergraduate degree. But let's return to the swan song. Like a typical academic, I decided to do a bit of research to find out the origin of this strange seeming term. If you google swan song, you will come up with "a final gesture or performance before dying or retiring." I prefer retiring to dying, so don't get your hopes up that I will be carried out of here by a gaggle of angels after I complete this talk. It turns out that some classical-age Greeks believed that mute swans are silent until just before they die, and then right before the moment of their death, they burst into song. Like mythology, it is a myth, but it has found its way into our lore and has been adopted into English in the form of the "swan song". To quote Orlando Gibbons, a sixteenth century English musician and composer:

The silver swan, who living had no note,
When death approached, unlocked her silent throat.
Leaning her silent breast against the reedy shore
Thus sang her first and last, and sang no more;
Farewell, all joys! O death, come close mine eyes!
More geese than swans no live, more fools than wise.

⁂

So here is my swan song, which I hope will not be my last words.

I want to visit with you about transitions. I am a geographer, and we often think of transition in geographical terms like the transition from one physical or social state to another. An example from this area might be the transition from the tall-grass prairie east of here to the short steppe grasslands that characterized the South Plains before they were plowed up to grow cotton. An example of a social transition might be the neighborhood where I live in Lubbock. Forty-seven years ago, when my wife and I bought our house, it was a middle class area where people owned their homes and kept them up. Another TTU faculty member lived west of us, two houses across the street were occupied by business owners, and a public school teacher lived to the east. A couple years ago, I happened to sit next to our local city council person at a dinner and he asked where I live. When I told him, he asked if the neighborhood was "ageing out". I told him it was. On our corner, we are the last ones left from when we moved there and it is pretty much the same way up and down the block. Many of the houses have become rentals, and we have students living across the street and also one house down the block from us. So, our neighborhood is in transition, just as I am. Transitions go on all around us and, as on this evening, they happen to us as well as to our surroundings.

"THIS IS MY SWAN SONG..."

This evening I want to focus on personal transitions, the kind you students and your relatives in the audience share with me. You already know my transition into retirement, something some folks may think is long overdue, but that I have put off as long as I could because, and please don't tell my bosses, I enjoyed what I did for what Dean San Francisco reminded me has been 2/3 of my life. Teaching is challenging, fulfilling, and fun, and I feel very privileged to have spent my career at Texas Tech. But like everything else we do, sooner or later, we have to move on.

For students, this is a welcome transition. You have completed your undergraduate degree and are ready to move on to a new phase in your life. Some of you will be going to a graduate program or a professional school, while others of you will be doing what your family has been waiting for – beginning a career and earning a salary. Other transitions might include marriage or some other important life change. So, your transitions are sort of like the road sign on the highway that says Dallas 380 MILES – you are on the road to a new life full of promise and anticipation, but you will count the changes in years, not miles.

For parents or caregivers in the audience, your transition may be a bit less abrupt, but you must be proud of your student's accomplishments, and perhaps relieved that they are about to become university graduates and move on to a new life. You most likely dealt with the empty nest issues when your student left for college, and now you may be looking toward your own future retirement, or at least having a little more money left at the end of the month. Down the road, there may be a son- or daughter-in-law and grandchildren you can spoil.

So tonight we are all happy to see our children, grandchildren, nieces and nephews, brothers and sisters, and for us, the faculty members, our former students, receiving recognition for having completed an important stage in their lives. For them, the swan song if far off in time.

But last week, we did see a swan song, the death of a former president, George Herbert Walker Bush. He is, it seems to me, an excellent example of a life well lived. I was impressed by the outpouring of respect from across the nation for President Bush's accomplishments and his ability to confront challenges head on and overcome disappointment and loss. He almost died when his plane was shot down over the Pacific during the Second World War; he finished college and married; he lost a three year old daughter to leukemia; built a couple of very successful oil production companies; ran for the Senate from Texas and lost; ran for the House of Representatives and won; ran again for the Senate and lost; and went on to hold several important offices with the federal government, including ambassador to the United Nations before being elected twice as Ronald Reagan's Vice President and becoming Reagan's successor as the 41st president of the United States of America. He lost to Bill Clinton in 1992 and became a one term president. Through all these transitions, whether positive or negative, he never lost his desire to serve the country and he was also a devoted family man whose marriage lasted 73 years and yielded 6 children, one of whom was governor of Texas and president, and another who became governor of Florida. These accomplishments are far beyond what a typical person might achieve, but they provide a wonderful example of the ability to take advantage of opportunities, accept losses, and move on.

These kind of talks are supposed to close with advice to guide you for the rest of your life that you will promptly forget when you leave this room. So, here it is: You graduates will encounter many transitions during your life, and George H.W. Bush could be a good model for how to manage them. Accept your defeats and losses with grace, and don't give up on your principles and long-range goals. Our lives are full of transitions, some minor and others life-changing. All should be taken as opportunities – in some cases to move forward into new, challenging, and exciting directions, others that may cause us to reassess our goals or move in unanticipated and, perhaps, unwanted directions for our lives. If we approach our transitions with an open mind and make the best of them, changes are that when you look back on your life, you will do so with a sense of accomplishment and satisfaction.

Good luck to you all!

Medallion Ceremony

MAY 17, 2018

Vale Oratorio
J.E. Brink

Thank you. Good Evening. Distinguished guests, families and loved ones, Dean San Francisco, esteemed colleagues, and students of the Honors College assembled here present: I have been asked to say a few words to you tonight on the occasion of this commencement. I beg the indulgence of the audience because I am going to invoke the speaker's privilege and address my remarks exclusively to the soon to be graduates. So, this is my vale oratorio, my farewell address to you; you're moving on and so am I.

I see a large number of familiar faces out there. Some of you have taken one or more courses I teach, others I know from Friday Lunch Forum and the Honors Book Club, and others I know from work you do in the Honors College. Your parents, loved ones, and friends are very proud of you. And I will speak for my colleagues here, the advisors and the faculty: We are very proud of you. But we are just the most recent folks in your history.

People in this theatre and elsewhere raised you (quite literally). They formed you, saw you into this world, and nurtured you from the crib to your adulthood. And what a fine job they did—they provided you with the necessities for health and growth, with your education and the intangibles of a strong character and work ethic, and a fairly decent sense of humor. And then you came to us. And, without claiming anything like the qualities you were raised with, we raised you a bit ourselves. And it's that part of your growth I want to talk about.

I've been fascinated and humbled for years each time the graduates profile themselves for our medallion ceremony. You know, we constantly try to describe just what the Honors College is. I think I have found the perfect description. You define the Honors College and I arrive at that claim from the following data: You see, I've been snooping, snooping into the slide show featuring each of you which has been playing in a loop on the screen behind me as you arrived and which you will see again at the reception in the Ballroom following this ceremony. You will remember you were asked to provide a photo, and answer two questions: What is your favorite Honors College memory, and what are your immediate plans upon graduation. Well, I've studied your responses and to make the case for my claim that you are our definition, I've compiled what we in the business of history call a prosopography, a pretentious bit of jargon that means a collective biography: Take a group of people at a specific time and place and describe their common traits. Here is what I've found:

Under favorite impressions: The winner by far is classes you took, discussions you had, and research projects you worked on. No one, by the way, mentioned mid-term exams! Many of those memories involved your first classes in the Honors College, especially your First Year Experience course. Next came friends you made—many of them friends for life--in classes, in the houses you were sorted into, and especially I imagine, during late nights in Gordon. Next was study abroad, especially in Spain, Italy, or Paris. Friday Lunch Discussions came in next, along with other extracurricular Honors College activities. And for a number of you, working with the youngsters at Bayless Elementary School was your most vivid memory.

"We study history not to know the future but to widen our horizons, to understand that our present situation is neither natural nor inevitable, and that we consequently have more before us than we imagine."

-Yuval Noah Harariw

As for your next adventure, it's a heady mix of exciting directions: A very large number of you are going into business and industry, especially the engineers and business graduates. And an impressive number of you are headed to the health professions for more education, in medicine, nursing, dentistry, pharmacy, as physician assistants, physical and occupational therapists, and as veterinarians. And a large number of you bound for graduate programs will be taking those in the health sciences field. So, graduate school is a destination for many of you, with a wide spectrum of disciplines. Law School is the next stop for an impressive fourteen of you. The military will be the next port of call for five of you and I want to acknowledge the five of you headed into the teaching profession.

So, what do we learn from that profile? What characterizes you, I think, is something we both, the faculty and you, share: Curiosity and making a difference. We both want to know, and more importantly, we want to understand. We enjoy learning and it should come as no surprise that we faculty learn along with you. The professor who doesn't learn from his or her students isn't listening. And you care about people. Many of you, an impressive number—mentioned that caring part, from individual health and well-being, to justice, to concerns about our planet.

So, thanks, I've finally figured out how to explain to prospective students and parents what it is we do in the Honors College.

Thus it's off to graduate or professional school, off to business and industry, and off to other adventures. You will get top notch training to be sure. And I know my colleagues and I are very impressed with what you have in store. Our job was to provide the education part of your intellectual and social growth so far. Along with your family and your K-12 teachers, your time with us helped shape you for that future training for your career. Here you were exposed to the elements you'll use for that next adventure and all the other adventures you're going to have. We've exposed you to the warp and woof of the human condition and you've been asked to examine just what it is that brings out the wonder in your life.

We taught you to criticize authority from an informed position, through study, forming your argument from an empirical foundation and then championing, opposing, promoting, or resisting.

And we taught you to know that you don't know. And at the same time, we showed you the tools to solve what you don't know.

And we taught you to take intellectual risks, but always calculated risks.

We taught you to pass on the culture. You are part of the culture keepers, you have a duty to be judiciously, factually informed. Your opinions matter. To turn a Bertrand Russell admonition on its head: the opportunity is yours, but so is the responsibility. And since I'm invoking bits of wisdom from the past, here's one I like from René Descartes: "It is not enough to have a good mind; it is more important to use it well."

Yes, your course work, the lectures, the reading, the notes, the discussions, the research, the writing, were the stuff of your years here, but you will soon forget a great deal of that, the product of your course work. What you won't forget is how you went about that course work. It is the process embedded in every successful component of that course work which will stay with you.

I'm enough of a realist to know that probably the best lessons you take away from here didn't come in the classroom. I'm reminded that the poet W.H. Auden said, "A professor is someone who talks in someone else's sleep." For the majority if not all of you, the most valuable lessons came from your colleagues—through something you read about, heard about, in your residence hall, at a party, or at a sidewalk café in Seville, Paris, or Rome. That's where you've honed the thoughts that give substance to your personality, where you defended your views and learned to see another's point of view. I recently read a fascinating and provocative book by Yuval Noah Harari, called Sapiens. He says this:

"We study history not to know the future but to widen our horizons, to understand that our present situation is neither natural nor inevitable, and that we consequently have more before us than we imagine." (p.241)

Every generation laments the next generation. I'm no different. I have concerns: What are you paying attention to? How do you think about important matters? What will you do with what you know? I have these questions but when I hear from young people from Parkland High School, or when I hear you voice a considered opinion in class or out, I am confident. You won't do what needs doing the way we did. You will do it your way, but I am confident.

So, read a good book, listen to good music, see a good movie, a good play, follow factual news, and travel and shape your life. We say someone is green when they don't know that they don't know. You're not green. This ceremony tonight is our way of saying you're ready.

You and I both need to celebrate tonight, for to make an end is to make a beginning. The end is where we start. As advisors and faculty we've done our part. You'll do well. It's a great day for you, for your parents and loved ones, and for us who are so very proud of you.

You are launched!

SAVE THE DATE

20TH ANNIVERSARY CELEBRATION
of the Honors College

SPRING, 2020
More details to come

TEXAS TECH UNIVERSITY
Honors College™