

link

THE MAGAZINE FOR SAIT ALUMNI | Spring 2018

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LINK VISITS THE LOFT
Behind the scenes at *Heartland*



PREPARE YOURSELF
PROMISE, DISRUPTION AND THE FUTURE OF WORK





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in more ways than one.”

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KATE MUNZ PHOTO



THE SLOW ELEVATOR

A QUINTESSENTIAL SAIT EXPERIENCE LEADS TO REFLECTIONS ON THE FUTURE OF WORK.

BRIAN BOWMAN | DIRECTOR, ALUMNI AND DEVELOPMENT

Waiting for an elevator in the marble-lined lobby of the Senator Burns Building can take a while. All around me, students and faculty are rushing to get to Business class or Tim Hortons; others quietly check their emails or chat with friends.

We're dependent on the technology behind these busy elevators to get us where we're going. An elevator arrives, eventually, and its machinery hoists each diverse carload to our respective destinations.

Elevator operator was once an occupation. Now, with the push of a button, technology does all the work — and that's just one example of jobs disrupted by technological advances. Construction, manufacturing, transport, energy, business — today robotics, artificial intelligence and other technologies

are replacing workers in almost every sector.

As well, online connectivity means more people can work from home rather than an office. Social and technological change have never been as widespread, as fast or as complex as right now. There is concern over which jobs will disappear next, and debate about the skills workers need to stay relevant. What is the future of work?

That's a question SAIT President and CEO Dr. David Ross put to a wide range of business and industry leaders recently, and it's the theme for this issue of LINK. It's a huge topic — one that inspires both optimism and anxiety. In researching our main feature story (page 14), writer Julie Sengl asked faculty, experts and leaders three questions about the future of work: what's

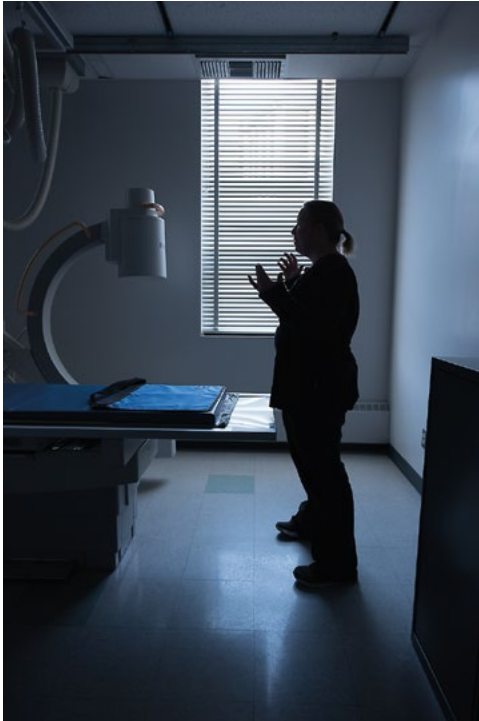
the worst that can happen, what's the best that can happen and what's most likely to happen.

I have pondered those questions myself, and I think what's most likely is humans will continue to adapt. This issue of LINK includes stories of an alumna who identified a need, then created a business to meet it (page 46); an alumna who made her dream career a reality (page 28); and four people who prove artisanal skills remain relevant in a tech-driven world (page 24).

How would you answer our three questions? I invite you to drop us an email at alumni@sait.ca or join @SAITalumni on Twitter to share your thoughts. *I hope you enjoy this issue of LINK!* 📌

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ON THE COVER:

Third-year SAIT student Cara Genis shares her thoughts on the future of work on page 19. Genis is one of five students working with a research team in partnership with NASA (page 36).



A future inspired

YOUR LEGACY GIFT TO SAIT

A century of history stands behind SAIT, while a new century of possibility stretches before us. We are planning now for the next generation of students and the careers that will inspire them.

Your legacy gift to SAIT helps create applied education opportunities for our future technicians, accountants, carpenters, journalists and master chefs.

We welcome the opportunity to meet with you to determine if a legacy gift to SAIT is the right decision for you. We are committed to helping you make a plan that is meaningful and beneficial to you and our students.

legacies@sait.ca
sait.ca/donors



PRESIDENT'S AWARDS 2018

SAIT is proud to be a nucleus where successful students become successful graduates, and graduates become our valued partners. It is these connections that help make SAIT the one-of-a-kind institution it is today.

The 2018 President's Partnership Award recognizes the Brawn Family Foundation for its commitment to student success and its numerous contributions to applied education at SAIT.

The 2018 President's Student Leadership Awards recognize the SAIT Great Northern Concrete Toboggan Race Team and the SAIT Accounting Society for enriching student life on campus and creating career-building opportunities for the future workforce.

We proudly recognize these outstanding award recipients. They are SAIT originals.

Thank you to our President's Dinner event sponsors.



ONLINE CONTENTS

WATCH WEB-EXCLUSIVE INTERVIEWS, GET THE LATEST ALUMNI NEWS BETWEEN ISSUES OF LINK, KEEP UP TO DATE WITH EVENTS ON CAMPUS AND DISCOVER HOW YOU CAN GET INVOLVED WITH YOUR ALUMNI COMMUNITY — ALL ONLINE AT SAIT.CA/ALUMNI.



Bonus content for the Spring 2018 issue includes:



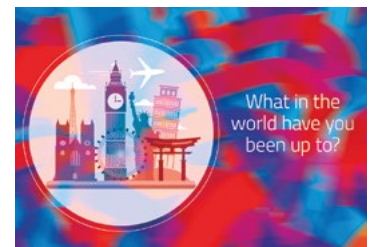
Watch students and instructors from SAIT's School of Construction and researchers from SAIT's Applied Research and Innovation Services test their unmanned aerial vehicle fitted with a sensor developed by NASA's Jet Propulsion Laboratory. This ground-breaking research project will help industry track methane emissions.



Flip through a bonus gallery of Jenn Five photos of international pop, rap and rock stars (and yes, that is Mick Fleetwood!)



LINK hits the halls to ask some intriguing questions about the future of work. Watch the thoughtful answers from SAIT students plus faculty and staff who are also alumni.



Thanks to everyone who sent in a Class Note — especially those who responded to LINK's call for international updates as part of our "Where in the World Are You" campaign. Check out their notes on page 40 and discover the global reach of SAIT alumni.

SIX WAYS TO STAY CONNECTED WITH SAIT

@ Update your contact information and send us your email address by visiting sait.ca/alumni and clicking on Stay Connected.

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👉 Send us a Class Note! Visit us online at sait.ca/alumni, click on Stay Connected and Class Notes. Fill out the form and send us your update.

👉 Prefer to read LINK online? Fill out the form at sait.imodules.com/ReadLINK to update your reading preferences.

CELEBRATING STUDENT LEADERSHIP, PARTNERSHIPS AND VOLUNTEERISM

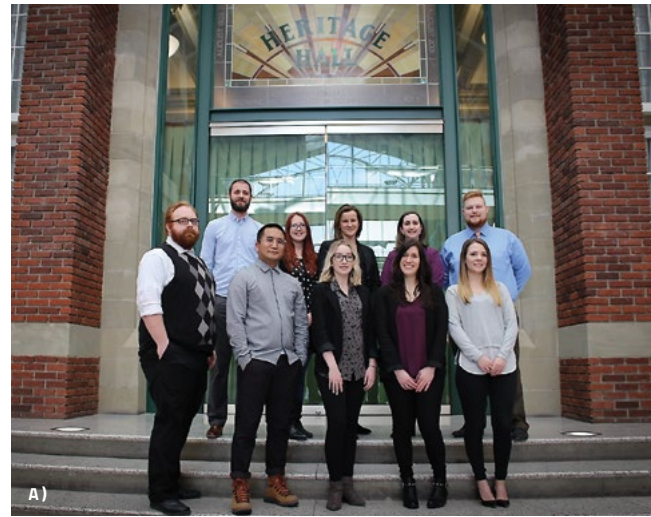
ON MARCH 8, SAIT PRESIDENT AND CEO DR. DAVID ROSS PRESENTED THE 2018 PRESIDENT'S AWARDS. THE THEME OF THIS YEAR'S AWARDS EVENT WAS "CONNECTIONS" BECAUSE, FOR THE PAST 100 YEARS, SAIT HAS BEEN CONNECTING STUDENTS AND GRADUATES TO INDUSTRY, CONNECTING INDUSTRY TO RESEARCH AND INNOVATION, AND CONNECTING PEOPLE AROUND THE WORLD TO EACH OTHER. LINK INTRODUCES YOU TO THE RECIPIENTS OF THIS YEAR'S AWARDS.

A) The *SAIT Accounting Society (SAS)* was recognized with a *President's Student Leadership Award*. One of the largest and most active clubs on campus, it offers networking events, a speaker series and workshops that provide mentorship and career guidance to students. SAS maintains a strong partnership with the Chartered Professional Accountants of Canada, and SAS members are active volunteers as ambassadors and with charitable groups such as the Calgary Drop-In & Rehab Centre.

B) SAIT's *2018 Great Northern Concrete Toboggan Race Team* — which beat out 22 other Canadian post-secondary schools to win this year's race in January — received a *President's Student Leadership Award*. Competing in the race is an interdisciplinary team effort involving about 30 students and faculty advisors representing seven programs in five academic schools. In building and racing a five-passenger toboggan with a concrete running surface, team members gain experience in everything from planning to fundraising.

C) The *President's Medal* was presented to *Akhil Sharma*, who has excelled academically as a student in the Architectural Technologies program and as a leader among peers. He served as co-president of his program's club and organized activities to connect students with industry. An elected member of the SAIT Students' Association board of directors and an active volunteer, he participated in fundraisers and educational activities while maintaining a 3.66 grade point average.

D) *The Brawn Family Foundation* was established in 1976 by Calgary entrepreneur Bob Brawn to create, develop and support programs in the community that focus on health, sports, recreation and education. One of SAIT's most important partners, the Foundation received the 2018 *President's Partnership Award* for its numerous contributions to applied education including endowed student awards, contributions to the Promising Futures™ campaign to build the Trades and Technology Complex, and the creation of the Brawn Fieldhouse at SAIT.



Watch videos played during the awards event and flip through a photo gallery in the digital version of LINK at sait.ca/alumni/link-magazine.



CRAIG MAYNARD PHOTO

▲ 02

BUILDING BLOCKS OF THE FUTURE

More than 600 kids descended on SAIT's campus Feb. 24 to build their knowledge in science, technology, engineering and mathematics (STEM), one LEGO block at a time.

With the help of more than 20 staff and student volunteers, SAIT hosted the *FIRST* LEGO League competition. Designed for students in Grades 4 to 8, it engages youth in STEM fields through real-world research projects and LEGO.

Highlighting the event was a water challenge by keynote speaker Dr. Vita Martez (CHT '94), Natural Sciences and Engineering Research Council of Canada Industrial Research Chair for Colleges and Advisor with SAIT's Applied Research and Innovation Services (ARIS). Using their feet, 10 teams were asked to produce clean water on a pedal-powered water filtration system.



Crossing a global stage

Family and friends around the world are watching SAIT's convocation ceremonies live on SAIT's YouTube channel. The Fall 2017 ceremonies drew 662 total views from across Canada and 28 other countries.

"What's interesting is the countries with the least numbers of views — such as Korea and Vietnam — are where our highest numbers of international students come from," says Stacey Barefoot, Interim Associate Director of the International Centre. "But it's not unusual for international students to have siblings studying in other countries as well as parents in still another country."

Barefoot says the list shows SAIT's global reach and family connections. "Word of mouth is our best international marketing and when students have good experiences, they tell family members and friends." Here's the breakdown of viewers:

CANADA	409	UNITED STATES	32
COLOMBIA	29	VENEZUELA	27
PHILIPPINES	26	LEBANON	18
INDIA	13	NAMIBIA	13
IRAQ	12	UKRAINE	11
MEXICO	10	RUSSIA	7
THAILAND	7	GUINEA-BISSAU	6
UNITED KINGDOM	5	ITALY	5
JAPAN	5	BRAZIL	4
SOUTH KOREA	4	VIETNAM	4
SOUTH AFRICA	4	PAKISTAN	3
IRELAND	2	BARBADOS	1
FRANCE	1	MOROCCO	1
NEPAL	1	SAUDI ARABIA	1
SENEGAL	1	TOTAL VIEWS	662

STUDENT CLUBS GET \$ FROM #SAITGIVES

On Oct. 31, 2017, SAIT Alumni and Development held Giving Day, a 24-hour campaign to raise awareness and funds for SAIT students. The final tally was \$70,105 thanks to contributions from SAIT alumni, students, employees and friends plus matching donor funds of \$25,000 from RGO Products Ltd. and \$10,000 from an anonymous donor.

One fund that benefits from Giving Day is the SAIT Student Success Fund, which supports experiential learning through activities including student clubs and student-led projects. In January, the #SAITGIVES Instagram Club Contest invited clubs to share photos showing the types of activities they could offer if they

won \$1,000 from the fund. All photos were entered into a random draw. Here are the four winners.

A) SAIT Beekeeping Club “With our prize money, we want to buy bee hives, get nucs (packs of bees with a queen) and supplies like suits and gloves. We plan to start beekeeping on campus and to try new techniques like using styrofoam and plastic hives as well as traditional wooden hives.”

B) SAIT Surf Club “Our goal is promoting and sustaining river surfing in Calgary. We haven’t decided how these funds will be used yet, but we do know they will be instrumental in helping reach our fundraising goal of \$20,000 to build this wave.”

C) SAIT Métis Student Club “We are planning traditional crafts such as beading to educate and engage club members, other students and SAIT employees in cultural activities. Another possible use is to fund our students participating in community events put on by Métis Nation of Alberta.”

D) Architectural Technologies Students’ Association “Our club helps students network with industry professionals so we will use the money in part to organize more lunch-and-learn sessions for students, and to organize a welcome event so students in the upcoming fall intake can learn about our club.”



A)



B)



More than 350 of you donated over \$70,000 on SAIT’s first-ever Giving Day and our students are grateful for your support. Watch the Giving Day thank you video in the digital version of LINK at sait.ca/alumni/link-magazine.



C)



D)

MAKING eSPORTS FUN AND HEALTHY

At first glance, any connection between student wellness and the multi-player computer game trend known as eSports may be unclear. But SAIT’s new intramural eSports program — presented by the Athletics and Recreation department in partnership with Microsoft, The Gateway and SAITSA — brings student gamers together to meet new people and enjoy competitive gaming in a fun, safe environment.

Wearing headsets, the student gamers share friendly banter while competing with each other online in a series of tournaments featuring games like NHL 2018 or Counter-Strike.

SAIT’s Recreation Programmer Jared Hidber says it’s also a way of bringing video-gamers into the recreational facilities on campus. “Professional eGamers nowadays go to the gym to work out and they eat healthy.

“This program is a chance for students to learn healthy ways to play online, to see the recreational facilities on campus, and have a good experience here at SAIT.”

After the program’s first year, Hidber is researching ways to grow the eGaming community at SAIT and exploring the possibility of tournaments with other schools in Alberta.

JARED HIDBER PHOTO



REFLECTION INSPIRES RESEARCH

The x-ray appointment started off like any other for Sidsel Pedersen, a medical radiation technologist (MRT) at a Calgary clinic and an instructor in the MRT program in SAIT’s School of Health and Public Safety.

She picked up the requisition form for her next patient, saw it was for a boy needing an x-ray, and called out for “Henry” — the name typed on the form. That’s when the child’s mother looked at Pedersen and said simply, “This is Harriet.”

It took Pedersen a moment to realize her patient was transgender and identified as a girl. And then it took another moment for Pedersen to work through how she needed to change her medical questions as she prepared Harriet for the x-ray.

“Radiologic technologists must know whether a patient has male or female reproductive organs so we can shield those organs properly from ionizing radiation,” Pedersen says.

Later that day, Pedersen talked through the experience with her clinic colleague, Virginia Sanders.

“We always teach our students the importance of reflective practice and, upon reflection, Virginia and I realized we need better ways to communicate with transgender patients,” Pedersen says.

“I teach about radiation protection and safety, which is all about asking patients the right questions. But in our research, Virginia and I couldn’t find anything to specifically help MRTs ask about a patient’s reproductive organs in a respectful and dignified way.”

That led Pedersen and Sanders (now living in California) to create a session called Gender Diversity — It’s the Parts that Matter. It raises awareness among MRTs of the many different categories that make up the gender continuum, and the importance of providing a gender-friendly environment.

Pedersen and Sanders presented the session to the Canadian Association of Medical Radiation Technologists, which awarded them its annual speaker award and sent them to present the session at ASRT@RSNA — the world’s largest scientific and educational meeting for the radiologic sciences — in Chicago last November.

“Our presentation teaches practical ways to create a safe space,” Pedersen says. “Studies tell us transgender people often feel vulnerable during medical appointments, so we offer MRTs suggestions to make these patients feel more comfortable during our short time with them and, ultimately, to ensure their safety during x-rays.”



GEORGE WEBBER PHOTO

WELCOMING THE WORLD

For eight weeks between October and December 2017, 36 learners from 12 educational institutes across Indonesia came to SAIT for training. Initiated by the Indonesian Ministry of Research, Technology and Higher Education, the learners were in two cohorts as they explored SAIT’s industry-focused teaching model. One cohort, whose members share an electrical background, undertook power systems certificate training. The second cohort was lecturers looking to train in areas of oil and gas such as drilling, production and liquefied natural gas (LNG), which are becoming more relevant to the Indonesian economy.



PRO TIPS

RV Rx

A SPRING CHECK-UP CAN HELP PREPARE YOUR RECREATIONAL VEHICLE FOR SUMMER.

Freedom, fun and the great outdoors — RVs offer a home-away-from-home on the open road. But keeping your RV in good condition requires careful maintenance. LINK visited two instructors from SAIT's Recreation Vehicle Service Technician Apprenticeship program, Robin Bunker and Warren Thunstrom (RVST '04), to ask their prescription for making your RV roadworthy this spring.



ASHLEY NAUD PHOTOS

1

SAFETY FIRST

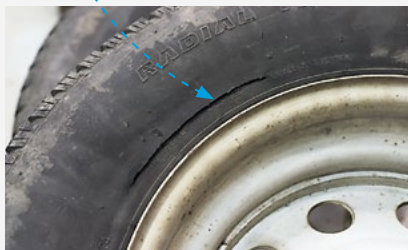
A carbon monoxide sensor, a propane detector, a smoke detector and a fire extinguisher are all mandatory in every RV. If you already have them: check their batteries, check their best-before dates and test the extinguisher. If you don't: install them yourself — and be sure to use RV-specific models — or have them installed by a certified RV dealer.



2

TEST THE TIRES

RVs are heavy and often parked for long periods so RV tires will dry out and crack long before their treads wear out. Check the tire pressure and — more importantly — check the sidewalls for cracks that could cause tire failure on the road. Crawl under your RV to check the sidewalls facing in — that's where this crack was found. Look for the best-before date code on your tires and consider replacing tires more than five years old.



3

UNLOCKING PERFORMANCE

Use a water repellent spray lubricant on door locks and compartment locks at the start and the end of the season to prevent rusting.



4

CHECK THE ROOF

Unless your RV is covered, sun and weather can damage the roof. Climb up to inspect roof seams and seals around vents and antennae. Look for brittle seals, cracks or gaps that might let rain or water seep in. Reseal if needed.



Alamy Stock Photo/Steve Speller

5

BATTERY BASICS

Put on your safety glasses and gloves, then open your RV's battery packs to check the electrolyte level. Top up with distilled water if necessary. Make sure the connections are clean and the battery boxes are mounted securely.



iStock.com/Grassetto

6

PREPARE TO THROW SOME SHADE

Lower your RV's awning to make sure it's working. Use an awning cleaner (available from RV dealers) to clean off dirt and tree sap without damaging the fabric.



7

STOP STOWAWAYS

Look in compartments and drawers for mouse droppings or signs of chewing and nesting. At the end of every trip, remove all food from your RV.

8

SAFETY LAST

Check your headlights, tail lights, brake lights and signal lights before you hit the highway.



Alamy Stock Photo/Albert Karimov

HANDS ON \ PLASMIONIQUE EVAD

PLASMA-ENHANCED ATOMIC LAYER DEPOSITION (PE-ALD) MACHINE

TRUDIE LEE PHOTO



THIS POWERFUL EQUIPMENT CREATES ATOMIC-LEVEL LAYERS TO GIVE MATERIALS SPECIAL PROPERTIES. Nanotechnology harnesses the energy in plasma to make ultra-thin, stable coatings that protect a surface from corrosion or wear. “This equipment uses a process called plasma-enhanced chemical vapour deposition, where we introduce gases continuously and at a specific temperature so they react with the surface,” says Evgeny Anisimov, a University of Calgary student and researcher with SAIT’s Applied Research and Innovation Services (ARIS). “It also has an advanced option called atomic layer deposition (ALD) that introduces different gases and vapours in cycles.” Says fellow researcher Sulan Chen (CLT ’14), “With each cycle the gases react with the previous layer, so we can completely enclose a surface in thousands of layers of precise, super-hydrophobic or hard ceramic coatings.”



TECH ON CAMPUS



Nitrogen, hydrogen, argon and oxygen gases can be sent into the machine’s reaction chamber, where they react with an object’s surface to build a coating.

1,100

Lined with heating elements, the reaction chamber works as a furnace and can reach 1,100 degrees Celsius.

A tube holds the specimen. On LINK photo day, it was an industrial mixer blade being coated to repel caustic chemicals.

0.00000001

Each layer is measured in nanometres. “Nano” means one-billionth; a nanometre is one-billionth of a metre thick.

FOURTH STATE

In physics, there are four states of matter: solid, liquid, gas and plasma. Anisimov says gases or vapours become excited by plasma and react with a surface more intensively and at lower temperatures. Here the plasma source is a mixture of argon and hydrogen, which creates a pink glow.

Purchase of the PE-ALD was made possible by the Canadian Foundation for Innovation, and Anisimov and Chen are working with ARIS industry partners CleanO2 and Cenovus Energy Inc.



FEATURE

WARP SPEED AHEAD

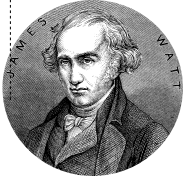
A NEW WORLD IS EMERGING AT BREAKNECK
SPEED AS TECHNOLOGY SHAPES — AND SHAKES —
THE LIVES WE LIVE AND THE WORK WE DO.
AS TECHNOLOGY EVOLVES, LINK ASKS:
WHAT IS THE FUTURE OF WORK?

TEXT BY JULIE SENGL
PHOTOS BY ASHLEY NAUD
GLITCH EFFECTS BY MICHELLE ATKINSON

ILLUSTRATION © TIM ZELJNER, izlart.com

FIRST INDUSTRIAL REVOLUTION (1760 – 1870): STEAM AND MECHANIZATION

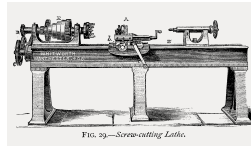
1769 James Watt improves the steam engine



iStock.com/duncan1890

1779 Invention of the spinning mule changes the textile industry

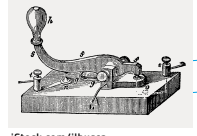
1797 Invention of the precision lathe



iStock.com/duncan1890

1830 Invention of the lawn mower

1844 Samuel Morse transmits a message in Morse code from Washington to Baltimore



iStock.com/ilbusca

THERE'S A FUNDAMENTAL SHIFT happening all around us. Human progress (assuming we can still call it that) is branching out from the familiar, linear path of natural evolution. Technological breakthroughs are spawning spinoff breakthroughs at a dizzying rate, reconfiguring our basic assumptions around core values like education, employment, privacy, social norms and even mortal limitations. Whether we embrace it or not, technological innovation is augmenting our reality.

Both the nature of work and the workforce itself are in for radical change. The notion of job security is already becoming a construct of the past and soon it will be a distant memory, like the 40-hour workweek and employer-funded pension plans. Serial employment is fast becoming the new norm as companies tap into specialized talent on demand. In-demand workers transition from one job to the next, refreshing their

skill sets between every contract to avoid turning up for work and discovering their skills are obsolete. Lifelong learning, flexibility and adaptability are critical to success. Competition is tougher than ever. The threat of automation is real. Digging in your heels will only get you stuck. Prepare to be nimble, or bust.

Clearly it's not the first time huge swaths of people have had to rethink their livelihoods; to redefine their purpose, their skills and their priorities in the wake of progress. Three industrial revolutions over the span of the past 250 years have led to where we are today.

The first started in the late 18th century with the advent of steam power and the mechanization of production and factories. When new energy sources emerged at the end of the 19th century, the Second Industrial Revolution kicked off. It was underscored at the start of the 20th century by the invention of



MARY-ANN HUMMEL, CTC
Program Specialist and Instructor,
Travel and Tourism Program
School of Hospitality and Tourism

If the future brings us less time spent working, how might leisure time change?

As a travel professional, I could see the increase of leisure time as a positive for the travel industry. There would be more time to explore new countries and cultures, resulting in a more worldly, tolerant and educated society.



Hear answers to these streeter questions from students, staff and instructors in the digital version of LINK at sait.ca/alumni/link-magazine.

0 ~ 1870

BLAIR LINDSAY (EMTP '85)

Respiratory Therapy and Emergency Medical Technology — Paramedic instructor, School of Health and Public Safety; sci-fi author

Can the hand of a robot simulate the empathy of human touch?

In the future we will surely have AI that can convincingly mimic human speech and empathy, as well as robotics that can simulate, in very exact ways, a gentle human touch. What will always be missing, though, is the deep intrinsic knowledge that a living, caring human being is behind that touch, no matter how gentle or well-programmed. And that, after all, is where the sense of comfort truly comes from. The answer for me is, "No."



the electric-powered assembly line, which introduced mass production to feed growing consumer appetite. The third revolution appeared during the last half of the 20th century when electronics, microprocessors and computer-generated information technology enabled the automation of production lines.

Less than two decades into the third millennium, we're already well across the threshold of the Fourth Industrial Revolution, flexing technological superpowers to influence what activities are performed, how and by whom (or what) across every industry in every country around the planet. Mobile and global connectivity, rampant digitization of information, and a plethora of compounded data and knowledge are driving our technological capabilities forward at warp speed. Innovation is seeding innovation.

Disruption doesn't begin to describe where all of this is leading.

Robots and automation in commercial manufacturing and packaging plants have proven consistently effective at completing precise, repetitive tasks quickly and continuously without complaint, fatigue or injury. The potential applications continue to expand. The recent rollout of self-driving trucks in Alberta's oil

sands has ignited debate on the superiority of automation over the human labour market. And as automation ramps up in the pursuit of improved workplace safety and bottom line efficiencies, jobs that are people's livelihoods are doomed to be eliminated. We may not like it, but we understand it and we've seen it coming for some time. It's what might happen next that could throw us all for a loop.

Robots are maturing, diversifying and endearing themselves to society. Endowed with artificial intelligence (AI), measurement sensors and process control transmitters, they're fanning out, embedding themselves into our everyday lives and, in some cases, reporting back on what we've unwittingly taught them.

Limited only by imagination and consumer appetite, the spread and application of robotics and automation appear unstoppable. *In various parts of the world robots already patrol inside shopping malls (drones patrol the perimeters), comfort sick children in hospital, deliver room service at swanky hotels, and tend to the elderly and the infirm.* Enamoured by their capabilities and increasingly affordable price points, more and more of us are welcoming these smart devices into our homes to vacuum our living rooms, mow our lawns, empty the

SECOND INDUSTRIAL REVOLUTION (1870 – 1914): ELECTRICITY AND MASS PRODUCTION

1865 / Louis Pasteur patents his food safety process called pasteurization

1876 / Invention of the telephone



Fotosearch/Classic PIO

1879 / First practical incandescent light bulb



Alamy Stock Photo/Dennis MacDonald

1901 / First transatlantic radio signal sent

1908 / Model T Ford launched



Alamy Stock Photo/Iconographic Archive

...WE'RE ALREADY WELL ACROSS THE THRESHOLD OF THE FOURTH INDUSTRIAL REVOLUTION, FLEXING TECHNOLOGICAL SUPERPOWER TO INFLUENCE WHAT ACTIVITIES ARE PERFORMED HOW AND BY WHO (OR WHAT) ACROSS EVERY INDUSTRY IN EVERY COUNTRY AROUND THE PLANET.

kitty litter or entertain our kids.

The thing is, AI-imbued robots are high-performance machines. Given the necessary coding and algorithms, they have the capacity (called “machine learning”) to analyze feedback, predict outcomes and continuously improve upon their performance without human intervention. They're adept at facial recognition, lip reading and, increasingly, deciphering body language. Some are preparing to conduct job interviews. If machines can mentally out-perform people, then workers in skilled knowledge fields such as accounting, law, insurance, medicine, engineering and education are not as immune to automation as they once thought they were.

And that's just the tip of the iceberg. If machines commandeer one task after another formerly held by the thinkers and doers of this world, what opportunities will people have to make a living, and what role, if any, will we have in shaping the future of civilization? Are we innovating ourselves towards obsolescence as a species?

“Artificial intelligence is more important than fire.” That's what Google's CEO Sundar Pichai told the world at the 2018 World Economic Forum in Davos, Switzerland. He wasn't exaggerating. We're brandishing a colossally powerful tool with the capacity to either advance the human condition for everyone the world over or, if we're not careful, eradicate humankind. The choice — at least for now — is up to us, because it's people who build the algorithms that run the machines. We're still in charge. It's people who drive change.

LEONARDO DA VINCI lived from 1452 to 1519. Although he's revered as a Renaissance artist, he was truly a Renaissance man, with profound interest in many areas including anatomy, physics, nature, mechanics and aeronautics. His working notebooks contain detailed specs and illustrations of futuristic inventions like the bicycle, the helicopter, a submarine and even a military-style tank. A true visionary, his ideas were far ahead of his time. Society had neither the need nor the resources for such things. As a result, in his time, da Vinci's imaginings didn't go any further than the page.

The da Vinci example is one that Sonia Perna and Terry Davies reference when they teach Technology and Science in Society, a third-year business course at SAIT. “We look at how social needs and scientific knowledge drive change,” says Perna. *“If we have the will, the resources and a social need for it, we can use technology to make things better.”*

We're doing that all the time and in countless ways. Technological innovations have ushered in a wide range of timely new products and services designed to make the things we have to do (such as pay bills, navigate roadways, monitor our health) and the things we want to do (be entertained, take photos, share everything) a whole lot easier.

Technology continues to make our workplaces safer (elearning training modules, location tracking apps),

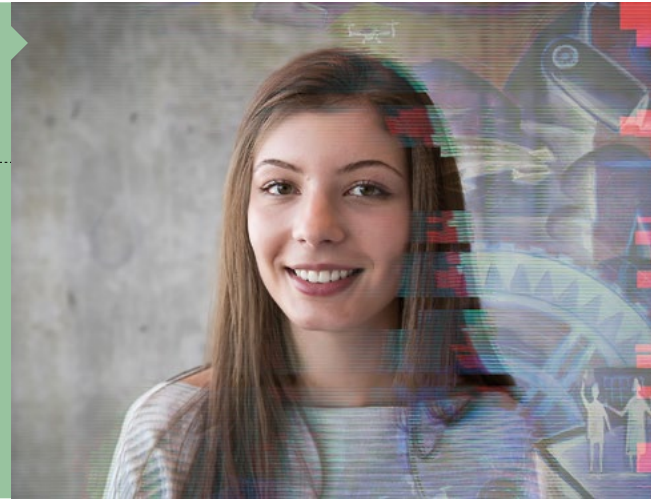
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CARA GENIS

Third year,
Bachelor of Science
Construction Project Management

Do you see opportunity or a challenge in the rapidly changing future of work?

Let's face it, the future of work will look nothing like today. The impact of technology in the workplace is inevitable. The choice: either embrace it or be replaced.



our workloads lighter (automation, teleconferencing) and our hours of work more flexible (remote offices, time-tracking software).

"We definitely drive the change, but technology also affects our thinking and how we operate," says Perna. Mobile connectivity has exposed us to global opportunities, cultures, ideologies and injustices, empowering us to sample, learn, question, tell, and champion change for the betterment of people and the planet at large.

"Technology has given people a global platform," says Davies. "A lot of the environmental movement and changes that have been made in products and manufacturing are a result of grassroots activities." Our connectivity has awakened a global consciousness — and a heightened social conscience.

Consumer behaviour and expectations have shifted in this new global economy. Expanded consumer choice affords greater discretion. Informed decision-making requires transparency. The fair trade, sustainable and ethical procurement movements are evidence that we don't just want more from the companies we choose to do business with; we expect more. We expect better.

To earn our trust and our patronage, companies have to show they're reaching out to make a positive

difference in the world at large. We want to hear how they practice sustainable farming, provide clean drinking water to global communities in need, invest in green energy, train disenfranchised women to run successful businesses, or promote human rights in their foreign operations. We've started to judge a company's performance, at least in part, on its social values. Demonstrative social responsibility has become a competitive edge in the marketplace.

There's a shift happening in the value our society hopes to realize from the labour market as well, though it's dramatically different depending on whether you're a worker or an employer.

Workers, and this is especially true of the younger generations, expect more from their jobs. "They're looking for different things from work at the end of the day compared to previous generations," says Davies. They expect to have more say over what work they do, how they do it and who they do it for. They want rewards that go beyond a cheque to pay the rent. "They want to be engaged. To be part of the decision-making process. To do work that's meaningful," Davies says. And if it turns out the job isn't all that? "They're more comfortable just walking away."

THIRD INDUSTRIAL REVOLUTION (1970 – 2015): ELECTRONICS, DIGITIZATION, AUTOMATION

1973 / First mobile phone call

1981 / First IBM Personal Computer



Alamy Stock Photo/INTERFOTO

1990 / World Wide Web is born

2007 / iPhone launches

2011 / Apple introduces its intelligent personal assistant, Siri



iStock.com/SKrow

Retaining good employees depends on keeping them engaged and satisfied, and that is the biggest challenge facing today's employers. Kristina Grubor teaches a SAIT course called Society and the Workplace. "The old way of telling people what to do and expecting them

game. There are no office hours, no employee benefits, no unions, no job security or social safety nets.

Following the earlier industrial revolutions, such piecemeal employment became widely recognized as worker exploitation. Today it's often disguised as an



DR. ROSS HUMBY

Academic Chair,
School of Business

How feasible is a universal basic income?

In many respects, Canada has experimented with this notion as part of our social safety net. There continue to be experiments in different jurisdictions around the world (USA, Finland, Canada) with differing levels of support and criteria to determine the impact on people's behaviour. This is going to be a very long, evolutionary journey and it is difficult to predict what form or forms it may take.

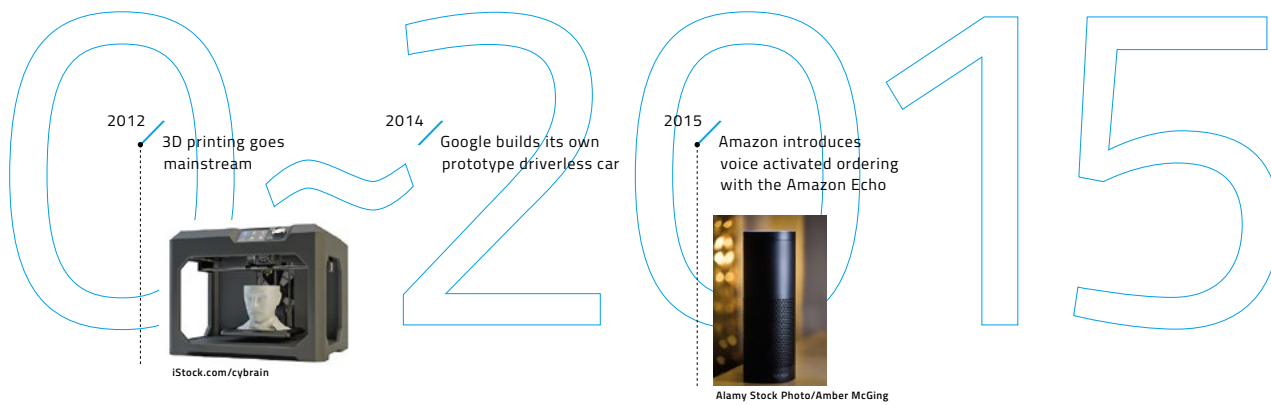
to obey no matter what is dying out," says Grubor. "We need to figure out a new way to successfully manage people. We need a new managerial paradigm."

In the meantime, temporary employment is fast becoming the norm as both workers and employers turn to the open talent job mill in place of any long-term commitments to one another. Employers are filling project-based contracts using digital platforms that provide access to global mobile talent on demand. Workers are posting to those platforms, hoping to stand out within the increasingly competitive market. Landing a job or a contract, and then another, is the end

opportunity to realize work-life balance, freedom and flexibility.

As more and more in-house jobs roll over into automation, or come under the purview of AI, and as more companies divvy up full-time positions into contract gigs they can outsource to the global labour market, precarious employment will only continue to grow.

If we are to expect better from the future of work, we'd do well to decide — right now — what a "better" future really looks like, for all of us.



WE KNOW ADVANCEMENTS IN ARTIFICIAL INTELLIGENCE ARE ONLY JUST BEGINNING TO HINT AT THEIR POTENTIAL TO DISRUPT TRADITIONAL KNOWLEDGE FIELDS LIKE ACCOUNTING, LAW, MEDICINE, ENGINEERING AND EDUCATION.



SO A GREAT MANY JOBS ARE BEING USURPED by do-it-themselves mechanizations and smarter-than-the-rest-of-us AI. We know we're on the threshold of a technological takeover that will have a significant impact on our ability to earn a living. It's happening now. It's happening *to* us and, let's be honest, for the most part *because* of us. Now what? What can we do to escape obsolescence in the workforce?

We need to limber up. The traditional career path of days gone by was linear. It mostly involved setting our bearings and following along a continuous trajectory. Whether Point A was an apprentice on the shop floor or a student in a lecture hall, we knew that, in all likelihood, if we could just stay the course we would eventually get to Point B. The future of employment is going to involve a lot more letters of the alphabet.

Manoeuvring successfully between jobs will require adaptive flexibility with the onus primarily on the individual to remain relevant in a marketplace that's prone to rampant change. The younger generations are inherently adept at adapting. They've been doing it forever. "There's going to be a lot more opportunity for people to create their own paths," says SAIT instructor Sonia Perna. "I feel like students are prepared for, and maybe even welcome, that."

On a larger scale, SAIT President and CEO Dr. David Ross works to ensure the Institute is also prepared to

adapt. He meets regularly with industry and community leaders to gauge their needs for skilled workers. During one recent round-table meeting dedicated to the future of work, Calgary Foundation CEO Eva Friesen talked about the difference between finding a job and making work.

"Jobs that existed when I was in school don't exist anymore, and now there are different jobs," she tells LINK. "I encourage my own daughters not to think, 'Who has a job out there for me,' but rather, 'What work needs doing that I want to do, and that I have the skills to do? And how do I turn that into my job?'"

It can be empowering for people to use today's technologies to design for the future and to create work. We're already seeing this kind of bottom-up, solutions-driven innovation with the proliferation of things like crowdfunding and mobile app development. Much of the existing technology is user-friendly. Everything else will just have to be learned.

Learning will necessarily entail a life-long endeavour. Ongoing interest in bettering oneself is known to correlate to individual success but, moving forward, purposeful, lifelong learning will be compulsory. Those who keep up will keep pace with change. Those who fall behind will be left there.

Exactly what areas of study will best prepare generations of workers for optimal success in the future is open for debate — and there is considerable debate.

The general consensus is that soft skills such as change management, collaboration, complex communication,

FOURTH INDUSTRIAL REVOLUTION (RIGHT NOW): "... new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human." — PROFESSOR KLAUS SCHWAB, FOUNDER AND EXECUTIVE CHAIRMAN, WORLD ECONOMIC FORUM

China leads the world in testing the 5G wireless network, necessary to expand the Internet of Things

Ubiquitous Energy is developing transparent solar panel technology that converts light waves into electricity and replaces window glass

Microsoft's HoloLens — a mixed-reality computer headset that combines holograms with digital content — is now available in 41 countries

Pop.Up Next is a passenger drone being developed by Audi, Italdesign and Airbus that combines self-driving vehicles with aerial transport

The Self-Assembly Lab at MIT's International Design Centre is pioneering programmable materials that change shape in response to energy sources such as temperature, moisture, light or vibration

critical/abstract thinking, creativity and the ability to work in diverse environments will be essential for success in the future of work. It's believed these people-focused competencies will give us a competitive edge over our automated counterparts while helping us work productively with one another. There's some question as to whether we can actually teach creativity. Perhaps the focus needs to be more on recognizing creativity when it appears and knowing how not to quash it.

The growing need for technically savvy individuals to write code and algorithms is obvious, if overstated. Even if we all had the will and the aptitude for such work, we couldn't possibly *all* find gainful employment doing it.

We know large parts of customer service across various sectors (think banks, grocery stores and hotel bookings) are already being automated or transitioned to online, self-serve platforms. Jobs that disappear this way are not expected to reappear.

We know advancements in AI are only just beginning to hint at their potential to disrupt traditional knowledge fields like accounting, law, medicine, engineering and education. As machine learning harvests, manipulates, learns from and repurposes the expansive knowledge reserves contained in digital information data banks, AI will eventually catapult machines far beyond the physical and mental capabilities of mere mortals. With any luck, there will be opportunities for human collaboration.

We know the trades are leveraging technologies like 3D printers, drones, nanocarbon tubes and automation to streamline jobs, improve performance and amp up workplace safety. Jim Szautner is the Dean of SAIT's School of Manufacturing and Automation, where students come to train in non-destructive testing inspection technology. Increasingly it involves using robots, software analytics and a 3D-printed sensor to inspect pipelines and rails without disturbing the integrity of the infrastructure. This emerging approach could eventually replace existing inspection methods but, as Szautner suggests, it's not the technology in and of itself

that's extremely innovative. "*The innovation comes from the application of existing technologies and combining them into a new function,*" he says. Technological innovation is essentially advancing the trades, not threatening them. As always, an applied education in hands-on work will have tangible value, even in the future.

We need to rethink our training and education models to bring them into alignment with the reality of fast-paced technological change and the real-time economic demand for talent.

"The kind of companies that are at the frontier need people with this higher-end advanced talent now," says Nobina Robinson, CEO of Polytechnics Canada, a national association that advocates for polytechnic education. Many of the conventional post-secondary options are "operating very differently from the pace of the economy." Skills development and training has to be a focus. Robinson sees the kind of industry partnerships and ongoing collaboration that SAIT undertakes with employers, fellow academic institutions and government as important ways of aligning program offerings with labour market demands. But it's also necessary nationwide. "In Canada we don't have [broad labour market] signalling systems. We don't have a national accreditation body. We are not supporting a mobile workforce."

The sweeping changes Robinson sees as necessary will require action at the federal government level. Since 1867, education (K-12 and post-secondary) has been a provincial mandate. Over time, that has effectively meant that Canada has 13 distinct labour markets. Educational credentials earned in one province may not carry equal weight in all the others. "We can't change history, but I find it shocking that in 2018 — 150 years after Confederation — we can't get past the jurisdictional barriers to education and labour mobility," says Robinson. Given what we know about the future, it doesn't bode well for us that we're a nation adverse to change.

Geographic barriers to education are breaking down,

h Philips Lighting has launched Light Fidelity (LiFi) systems that provide wireless internet connection through light waves

n Prototypes using blockchain-based technology can combine a patient's health records from primary care doctors, specialists and even wearables into a comprehensive medical history

o Intel's 49-qubit quantum computing chip, called Tangle Lake, is the latest announcement in the race for quantum supremacy — the moment when computers storing information in subatomic particles will outperform today's computers

v German cities such as Bottrop are using paving stones with Photoment, a concrete additive with photocatalytic properties that remove harmful nitrogen oxides from the air

w CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) and other gene-editing techniques are being researched for disease prevention and increasing food production

DR. VICKY ROY

School of Business instructor and 2017-18 Cisco e-Learning Chair

What will the classroom of the future look like?

Massive Open Online Courses (MOOCs) will impact post-secondary education globally. Top colleges and universities around the world already use MOOCs as a way to reach out to new markets and build their brands internationally. They open their educational resources for everyone to learn from anywhere, at any time. To be part of this new classroom of the future we need to rethink the entire model of education and redesign it so that it is more global, accessible and student-centred.



thanks to expanded online learning platforms. Here again, technology is showing us how something we thought could never be done can be, and rather seamlessly at that. Embedded translation software in online study programs is making global communication possible. Self-directed learning in whatever you want, whenever you want it, represents a tremendous capacity to provide and improve education globally.

A lack of academic prerequisites could put advancement out of reach for, say, someone who learned their skills on-the-job and without formal training. A process called Prior Learning Assessment Recognition (PLAR) is available for some courses at SAIT and other post-secondary schools as an avenue to map existing skills and abilities acquired through less formal channels, and to give credit for those skills where appropriate. It validates proven skill sets, saves what would be wasted time and money spent on upgrades, and turns potential obsolescence into the opportunity for meaningful productivity.

As the traditional career gives way to serial jobs, and human tasks are increasingly taken over by intelligent machines, the business of making a living is sure to be remarkably changed from what it is today. Just how

central a role we'll each have in the future of work depends on us — at least for now.

At the individual level, Eva Friesen suggests an entrepreneurial approach. "Getting a job depends on someone else giving it to you, but making work is something you do for yourself — and that needs some self-confidence and belief in yourself that you can do it."

And for society as a whole? Amid the seemingly infinite opportunities and the relentless disruption, our fundamental challenge may not be whether we can make work, but whether we can make work better — and how. 1



Want to talk more about the future of work? Join the conversation on Twitter by following @SAITAlumni. For future stories on this topic, email alumni@sait.ca to subscribe to the Alumni Connect e-newsletter.



OBLIQUE CALLIGRAPHY NIB, PENHOLDER AND INK
COURTESY OF THE BOW VALLEY CALLIGRAPHY GUILD

BANKING ON BESPOKE

TRADITIONAL CRAFTSPEOPLE AND SKILLED ARTISANS ARE ATTRACTING NEW CUSTOMERS THANKS TO THE INTERNET AND THE DESIRE FOR PERSONALIZED, ENVIRONMENTALLY SUSTAINABLE, LOCALLY SOURCED GOODS.

TEXT BY MICHELLE WOODARD | PHOTOS BY GEORGE WEBBER



SUSAN RALEIGH is the kind of consumer who does her homework, so she turned to Google when her 17-year-old son needed a new mattress. She knew she needed a custom solution to fit his six-foot, five-inch frame, but wasn't interested in one that would make its way to her doorstep crammed inside a box.

"My son has asthma and, because humans spend eight hours a night sleeping, a third of his life will be in direct contact with this bed," says Raleigh. "I didn't want him breathing in chemicals from off-gassing foam."

It's one reason she was happy to see Natural Mattress, owned by cabinetmaker Andrew Moir (CAPP '15) and kinesiologist Mark Lootens, pop up in her search results. The company focuses on environmental sustainability, natural materials and old-school values.

"They took the time to get to know us and find out exactly what we needed," she says. "The whole experience was positive and personalized."

Raleigh isn't alone in her appreciation for bespoke products and services, says Blake Kanewischer, a faculty member with SAIT's School of Business. Until the early 2000s, he explains, people were enamored with the idea of standardization and consistency, and it was only the very rich who could afford anything made to order.

"Now, because of the internet, it's more accessible for the average person to have custom pieces in their lives, whether that's art, clothing or furniture," says Kanewischer, who adds the same technology also makes it easier for artisans to bring personalized and locally sourced products to market.

The move toward "buying local" is one Kim Vanden Broek (BPA '14) and Julena Schipper (BPA '15) are banking their new business on. The duo's Homestead Bakeshop on Fort Macleod's main street specializes in artisan sourdough, and uses local ingredients whenever possible.

"My parents' pork operation is 20 minutes away — they raise pigs outside on the grass

FEATURE



Above: In the Natural Mattress workshop, co-founder and cabinetmaker Andrew Moir selects a plank of solid walnut from Upper Canada Forest Products, a leader in sustainably sourced wood. As Moir chisels a mitre spline on a custom-designed, king-size headboard he is creating, he uses a wooden mallet he made while studying at SAIT.

A) Hand lettering is enjoying a digital renaissance through Instagram pages, online calligraphy courses and a connected lettering community. Alberta illustrator and author Cari Buziak sells her how-to calligraphy books on Amazon and uses online marketplaces such as Etsy to offer products featuring her intricate artwork. "It's a unique marriage of old techniques using a modern resource to bring new life," Buziak says. B) Their love for baking led Kim Vanden Broek (left) and Julena Schipper to SAIT's Baking and Pastry Arts program. After careers in leading Canadian restaurants and, for Vanden Broek, travel to explore bakeries across Europe and the United States, they're putting their knowledge into practice at their Fort Macleod bakeshop, showcasing artisan bread and pastries baked daily from scratch.

in the sunshine — and I grew up understanding food tastes better when you know where it's coming from," says Vanden Broek. "Our customers also appreciate that we are using ingredients from the farm or ranch down the road."

While the Homestead Bakeshop is setting down roots in a physical community, author and illustrator Cari Buziak (PCK '13) is tapping into a virtual community. Her tutorials in Celtic art are all online, and she relies on Amazon to sell her calligraphy, lettering and adult colouring books.

Buziak's success makes sense, says Kanewischer. "Online, individual artisans can market to tens of thousands of people almost more easily than they can to hundreds — allowing them to extend beyond farmers' markets or neighbourhood sales, and sell their work worldwide."

Six months after the first night in his custom bed, Raleigh's son Matthew is well rested — and his mom is resting easy with her decision to support individual artisanal entrepreneurs.

"We are wonderfully happy with the quality of the product," she says. "The whole experience is something I feel really good about." 1



See more about the tools these artisans use by following @SAITAlumni on Instagram.



ILLUSTRATIONS: TREE OF CREATION (TOP), COPPER KNOT, BOTH © CARI BUZIAK

B)





ROCK & ROLE

COMBINING HER OBSESSION WITH MUSIC AND HER LOVE OF TAKING PICTURES, JENN FIVE (NMPD '06, JA '12) HAS BUILT AN INTERNATIONAL CAREER PHOTOGRAPHING SOME OF MUSIC'S BIGGEST NAMES FOR MAGAZINES LIKE *BILLBOARD*, *ROLLING STONE* AND *NME*. WHEN SHE'S NOT TRAVELLING, JENN LIVES IN CALGARY OR LONDON, ENGLAND, WHERE SHE SPOKE WITH LINK WRITER ERIC ROSENBAUM BY PHONE.



PRINCE "It's definitely one of my favourites. Prince liked this one, too. It was taken during a 12-minute version of Purple Rain! I was waiting for the confetti to blow. I'm just lucky it wasn't obscuring him. If I had been in front of the microphone it would have been a different story. A lot of people would have shot it vertically, with him in the centre, and that's okay. But I like the negative space and I think that's what sets me apart from other photographers."

“I was next to the Rolling Stone photo editor who got a similar shot. We were both thrilled. You can see the row of photographers behind Matt. They were in a good spot too, but they didn’t quite get that same effect.”



How did you come by the name Jenn Five?

There’s not really an explanation. It was just a nickname and it took. It’s my name.

Where is home?

Calgary, but the world is my oyster.

What kind of kid were you?

I have always been a music-head. The first concert I went to, I think I was eight years old. I begged my parents to take me to see Alanis Morissette. She was the first rock girl I liked. Before that it was Madonna, then Alanis came out with *Jagged Little Pill* and it was a whole different can of worms. All the money I’d get for allowance I’d spend on CDs or cassette tapes and I’d blow my money on concerts.

When did you pick up the camera?

When I was a teen and old enough to go to concerts by myself, I remember taking my mom’s 35-mm film camera. I would wait at the concert venue all day so I could be in the front row. I’d take the pictures just for me. I didn’t have any thought to selling them. I remember taking film to Walmart for developing and the girl behind the counter — who was probably a couple years older than me — said, “Are you the one with the Avril Lavigne photos? They’re so rad.” That was cool stuff to hear.



Flip through a gallery featuring more of Jenn Five’s photos in the digital version of LINK at sait.ca/alumni/link-magazine.





A) BASTILLE, GLASTONBURY FESTIVAL

"This is the festival at sunset. I wanted to be on stage for sunset and I asked management to let me up there. Glastonbury is all about the flags. It was really hard to see and I thought, 'Gee, I sure hope I get something.'"

B) HMLTD, MOTH CLUB, LONDON "This band is my top pick for 2018. I'm so obsessed with and fascinated by them. Their music is out of control. I've never heard anything else like them and they look like they're from a different planet. I've shot them more than a dozen times and they constantly have a different look, different colour hair, different makeup."

C) FOO FIGHTERS, GLASTONBURY FESTIVAL "This was taken about ten seconds after their last song, right off the stage. It was pitch-black. I had *NME's* editor-in-chief using the flashlight on his iPhone to light Dave (Grohl's) face and the publicist holding the reflector with my flash bouncing off it. They're pros. I didn't have to tell them how to pose. They knew exactly how to form themselves. I also like the fact that the three road cases are the colours of the British flag."

D) THE LEMON TWIGS, LONDON "I was there just to check them out and of course I brought my camera. It's a tiny venue. It was my first time seeing them and I didn't know what to expect. They're brothers, Brian and Michael D'Addario. That's Michael with moves like Pete Townshend. I put this on Instagram and the next night there were way more photographers there looking for cool shots."



After high school, you went to SAIT.

I enrolled in the New Media program first. I graduated and got a really amazing job, but I wasn't really happy. I decided to go back to study journalism. I actually wanted to be a rock writer; I wanted to be Lester Bangs (who wrote for *Rolling Stone* and *Creem*). Then, at some point, I thought, 'You know what would be better than writing about rock stars? Photographing rock stars.' And I thought, 'I'd be really good at that.'

What was your big break?

Prince. When his team approached me, I was in Amsterdam on holiday. It was 2014. His team was looking for a photographer and they were asking around for recommendations. I've heard that my name was recommended twice and so they checked out my stuff. I remember getting the email and thinking it was a joke because, three days before, I had tweeted that my holiday plans meant I was going to miss a Prince show. Before Prince, most of my work was with underground bands.

Which do you like better, shooting live performance or portraits?

I love both, but I started off doing live photography so that will always be exciting to me. You don't know what the lighting is going to be like. You truly don't know what you're going to do. That's super fun for me. It can be challenging. You just try to make do with what you have. You just have to know your camera really well and to change your settings without really thinking.

What's your favourite gear?

My Mark III camera (Canon EOS 5D Mark III DSLR) and my reflector. My reflector goes everywhere with me. It's particularly useful for on-the-go portraits.

What's your biggest thrill so far?

Prince. Shooting his show for the very first time, and I hadn't ever seen him live — that was a trip. And then meeting him was a trip. I was never more excited than going through my photos with him after a show.

Who are you dying to shoot?

Lady Gaga. I have shot her before but I want to do her portrait because it would be her vision, she'd bounce that off me, and then we'd get something amazing.

What's it like being a photographer when everybody's phone has a camera and they're taking photos of bands?

It gives you a reason to push yourself more and to create something a little bit different. Anybody can pick up a camera and do stuff. I've seen bands re-post iPhone photos and I think, 'Okay, that's a good shot.' And I just have to push myself harder.

What's your advice to young photographers?

Don't stop shooting. Keep shooting shows. Get to know the local bands and the people who work at your local venues. Get to know security, get to know promoters. People are going to know your name. They're going to trust you and they'll give you extra access. Also, be nice to people. You never know when you're talking to somebody who could help you or could be influential. 1



B)



C)

A) A\$AP ROCKY, COACHELLA VALLEY MUSIC AND ARTS FESTIVAL "He decided to start the show from the crowd, not the stage. It was his first song and there was hectic craziness. I got on a platform to be above the audience and I wanted to get the ferris wheel to grab that Coachella backdrop."

B) CAGE THE ELEPHANT, NEW YORK "Matt (Shultz) took off his shoes and went into the crowd. I'm just really glad I decided to stay onstage. I was next to the *Rolling Stone* photo editor who got a similar shot. We were both thrilled. You can see the row of photographers behind Matt. They were in a good spot too, but they didn't quite get that same effect."

C) THE 1975, SEATTLE, BACKSTAGE "These guys are friends of mine. Matty (Healy, lead singer) is so eccentric. I asked him to get on the floor and told the other guys to get around him. His thumb is almost touching my lens. Portraits of bands can be boring sometimes. Just four people in a line. I really like the composition of this and I think it turned out pretty cool."

D) GRIMES, COACHELLA FESTIVAL "This is one of my older shots and still one of my favourites. Grimes moves around a lot and she's super in-the-moment. I also love her dancers. Usually I don't like purple lights but they really work in this one. The colours are great. I think it's symmetrically a nice photo."

E) HALSEY "This photo almost didn't happen. I was told we weren't going to get a photo, just an interview. But I went along with the journalist anyway. It was really brown and gross backstage but I found a mural in a corner. I set up my camera and lights just in case. A video guy was there too and he said, 'I think Jenn's going to go first.' I said, 'Oh no, I'm not.' But Halsey said, 'Oh that's cool, I don't mind. We can do some photos.' So I got this. It really pays to be prepared."



D)



E)

PALMA VIOLETS "I love this so much because of the fans. I'm in there with them because I wanted to get beside Chilli Jesson — the lead singer — and the fans. Look at the girl, the one with the green hair, being crushed. She's just so happy. That used to be me as a fan. Now I get to capture it as a photographer instead."





TAKING FLIGHT



SAIT'S EXPERTISE IN UAVs HELPS NASA EXPLORE NEW WAYS OF DETECTING METHANE GAS EMISSIONS

KATHRYN KAZOLEAS | PHOTO BY TRUDIE LEE



01
This is one of two mounting systems created to carry NASA's Open Path Laser Spectrometer (OPLS). SAIT designed and fabricated the system in collaboration with Automated Aeronautics Inc. and Bryan Cera, Assistant Professor, Media Arts at the Alberta College of Art + Design.

02
Using the OPLS battery and control ensures the platform is balanced.


03
Early field tests used a DJI M600 unmanned aerial vehicle (UAV) with later tests completed on an M200 (shown here).

04
An anemometer mounted on a mast above the UAV provides information on local wind speed.

05
Mounting the OPLS sensor nearly a metre out from the centre of the UAV avoids prop wash.

Early field tests used a mobile atmospheric monitoring trailer set up on-site to measure ambient wind speed and atmospheric conditions as well as methane and carbon dioxide concentrations.

Assessments were developed to minimize risk and different flight patterns were tested.

 LINK was there as the team conducted field tests. Watch interviews and footage from the test run in the digital version of LINK at sait.ca/alumni/link-magazine.



AON RAJA ILLUSTRATION



Above: Five students are working with SAIT researchers and faculty to help NASA test UAVs for carrying its methane scanner over sites that hand-held and ground sensors can't access. Left to right: student Cara Genis, Dr. Ken Whitehead with ARIS, student Shaun Hofman, School of Construction instructors Shahab Moeini and Azzeddine Oudjehane, students Joseph Mathieu and Sidney Sheppard. Editor's note: student Stephanie Lapointe was unable to attend this photo shoot.

SAIT has joined forces with NASA's Jet Propulsion Laboratory (JPL) in a novel research project that combines the unique capabilities of unmanned aerial vehicles (UAVs — commonly known as drones) with the methane detecting capabilities of NASA's Open Path Laser Spectrometer (OPLS).

Originally developed for use on Mars, the OPLS has also proven effective in detecting molecules of methane in Earth's air. And, with both federal and provincial plans in the works for carbon pricing, Dr. Ken Whitehead of SAIT's Applied Research and Innovation Services (ARIS) says there is demand from oil and gas companies for technology to effectively quantify methane emissions at their facilities.

"By mounting the OPLS on a UAV, we're able to access and test areas that hand-held methane scanners or ground vehicles can't," says Whitehead, a UAV mapping and applications specialist and Research Associate at

ARIS's Centre for Innovation and Research in Unmanned Systems (CIRUS).

Design and testing of the sensor mounting system was coordinated by Shahab Moeini of SAIT's School of Construction. He enlisted five students from the Bachelor of Science Construction Project Management program and their solution preserves the flying capabilities of the UAV while maximizing performance for the OPLS sensor.

"We didn't really know if our design was going to work until we got it to the site," says third-year student Cara Genis, who has been involved in the project. "We were all really happy when it did."


The project is currently in its first phase, which involves test flights at an Alberta oil and gas facility. Results to date are promising. In Phase Two, researchers hope to expand their program to cover a range of production facilities with varying emissions characteristics and to identify optimal

weather conditions. Researchers are also amending project software to make it more user-friendly.

Dr. Lance Christensen of NASA/JPL says the project has been an exciting one and he is hopeful as to where it may lead.

"SAIT combines excellent technical capabilities in small unmanned aerial systems with a comprehensive understanding of the energy industry and emission regulations so that these capabilities can be used in an efficient and productive manner."

As for Genis, the hands-on experience has been invaluable.

"In a classroom, I'd think of things one way. Now, I have this whole new level of knowledge I can bring to classroom discussions," she says. 

This project is funded by the Petroleum Technology Alliance Canada (PTAC) Alberta Upstream Petroleum Research Fund (AUPRF) in collaboration with producers and government representatives.



SAIT ARCHIVES PHOTO

LOOKING BACK

This fun visit to SAIT was one of many where elementary and high school students could explore transforming their interests into careers.

IN 1993, THE STAY IN SCHOOL PROJECT, organized by Valley View School, the Rotary Club and SAIT, invited elementary students to learn about cabinetry, aeronautics, culinary arts and other fields. In the 1980s, Rosedale Elementary School held a Student for a Day program and throughout the 1990s, SAIT hosted an annual High School Technology Fair. Today SAIT continues to offer informative programs for kids from kindergarten to Grade 12, including unique summer camps that foster key skills for the future workplace.



To learn more about this year's lineup of fun and formative SAIT Summer Camps and to register, visit saitsummercamps.ca

IN THE LOOP \ ALUMNI UPDATES

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Designing and dressing sets for a TV show with a dedicated global audience ▶ 48



“Roller derby is a fantastic way to channel your inner superhero.”

MELODIE LAPINA (DGC '05)

WHAT BEGAN AS A QUEST TO MAKE FRIENDS after moving to a new city has blossomed into one of Melodie Lapina's greatest passions. For her, roller derby is more than a hobby — it's an empowering sport that's taken her all the way to the 2018 Roller Derby World Cup as a member of Team Philippines. “Roller derby is a fantastic way to channel your inner superhero,” says Lapina, who joined the South Okanagan Roller Derby Association in 2009 and now skates under the name Blair Block. “And skating at the World Cup was a dream come true. I constantly have to fight back the biggest smile on my face when I think about how far I've come.” Unlike the theatrical spectacle of roller derby in the 1970s, today's sport uses a flat surface and demands athleticism and agility of its athletes. In preparation for the competition that ran Feb. 1 – 4 in Manchester, England, Lapina doubled her training schedule by adding five to six hours of weightlifting, cardio and high intensity intervals exercises to her usual six and a half hours a week of derby practice. Lapina's efforts were worth it, though, as Team Philippines placed at 17 out of 38 teams which, she says, was a surreal experience. “Knowing I had the trust of my team, I felt a sense of calm as I stepped on the rink.” ❶

TEXT BY GISELLE WEDEMIRE | PHOTO BY SHAWN TALBOT

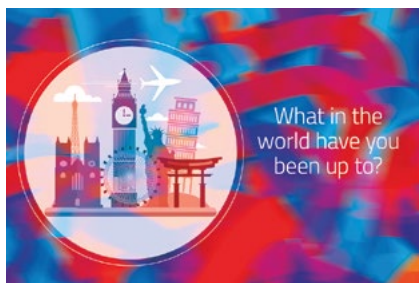


Flip through a photo gallery of the Team Philippines win over Team Switzerland and watch the full bout in the digital version of LINK at sait.ca/alumni/link-magazine.

CLASS NOTES

MALKINSON RECEIVES IEEE-SA LIFETIME ACHIEVEMENT AWARD

Terry Malkinson (INTR '98, ITP '99, BAI '01) has received the Institute of Electrical and Electronics Engineers (IEEE) Standards Association's Lifetime Achievement Award for his commitment to standards development within the IEEE and other national and international standards activities, and for his significant technical contributions to the IEEE-SA, which is a leading consensus building organization that nurtures, develops and advances global technologies.



Where in the world are LINK readers? We wanted to find out — and you responded with great stories from countries across the globe. Thanks to everyone who sent us an international Class Note via Facebook or by going to sait.ca/alumni.

1970s

LARRY MCGREGOR (STRUCTURAL ENGINEERING '71)

"Before graduation I was already working in heavy construction and was introduced to cranes and pile driving, which became my passion. After graduation I moved to the Okanagan and started my first business in pile driving, which I did for 20 years. I moved to Vancouver and worked for a larger pile driving company for 25 years, first as a superintendent, then general superintendent. I retired in 2015. I spend half the year in Belize and half in Canada, and it all started on the Crowchild Trail bridge in Calgary and a great experience at SAIT."

HUGH RICHARDSON (BA '73)

"I'm now retired and living in Ecuador after spending my career in the Northwest Territories, first with the cooperative movement in Deline and Igloolik, then as area manager and on building projects. Then worked for the federal government doing economic development with First Nations. I spent about 10 years negotiating land claims and self-government agreements, and was privileged to sign a final agreement, several agreements in principle and intergovernmental agreements. I managed the team that negotiated the devolution of land and resources from the federal government to the Government of the Northwest Territories. I have travelled extensively and plan to travel in South America."

WILLIAM PRINGLE (CTSR, TSR '77)

William has been appointed to the national board of directors of the Canadian Mental Health Association as chair of the National Council of Persons with Lived Experience, an advisory council bringing the perspective of persons with lived experience in mental illness to the association's agenda. He

ALBERTA'S TOP EMPLOYERS

SAIT was named one of Alberta's top employers for 2018 — the eighth time in nine years. The annual list, put together by MediaCorp Canada Inc., recognizes employers that lead their industries in offering exceptional places to work.

was recently elected as co-chair of the National Network for Mental Health and administrator for a peer-run support group with more than 7,000 members worldwide. Before retiring he was a pyrotechnician and manager of public relations divisions for the City of Calgary.

DOMINIQUE MARCHILDON (AT '79)

"While living in Saudi Arabia, I met my future wife in Norway after missing my flight out of Oslo. We got married near Amsterdam and headed off to Ottawa. After 14 years there, we returned to Holland in 1997. Still there. Not a bad "funny little country" to live in. No real winter and barely a 'normal' summer. Great location for venturing out on local or international experiences."

1980s

ROBERT PFISTER (CTSF, TSR '80)

"I started working with CKY in Winnipeg, then returned home to Calgary to work with CFCN TV news as a cameraman. I did a six-year stint with the city police in the training academy and worked on various films and commercials over the years. I worked in France, Germany, England and California but I am currently living in Nairobi, Kenya and working as director of photography in feature films."

ROSS WARNE (MACHINIST '80)

"I completed my journey machinist program and went to work for Petro-Canada in research and development for heavy oil extraction. After going back to school to complete a Bachelor of Science in Mechanical Engineering, I have worked for various consulting engineering companies. For more than 20 years, I have been with Anvil Corporation in Washington State where I am currently the engineering manager."

WERKLUND RECEIVES NATIONAL AND PROVINCIAL HONOURS

In January, David Werklund (HOND '10) was appointed to the Order of Canada for his business acumen as an entrepreneur and industry leader, and for his philanthropy in support of youth leadership programs. Last November, Werklund received the Alberta Order of Excellence in recognition of his successful career in Alberta's oil and gas industry and his contributions as a farmer, an entrepreneur, a CEO and a philanthropist.

NOREEN ARTHUR (NEE COOPER, TSR '81)

"After graduation, I worked first at Q91 Radio in Drumheller and then in public relations for the University of Calgary's Faculty of Fine Arts. Next I moved to Australia, where I continued to work in television and magazines. My career blossomed while working with Australian Consolidated Press in the 1990s. Currently I am working in agricultural logistics in South Australia. I'm still learning and have no plans to retire!"

ALEEM GILLANI (BA '81)

"I've had a remarkable career since graduating from SAIT. I've worked on every continent except Antarctica and I have just retired this summer as chief financial officer of SunTrust Banks, the tenth largest bank in the U.S. with \$205 billion in assets and more than \$2 billion in annual net income. My wife, Cindy, and I are about to spend the next few years travelling the world from our home bases in Orlando, FL and Lake Martin, AL."

IBRAHIM RABIU (ACCT '81)

"After graduation I became the head of the Refrigeration and Air Conditioning department at a technical school in Kano, Nigeria, then proceeded to Cal Poly State University in San Luis Obispo, California for a Bachelor of Science in Industrial Technology. I am now back in Kano and working at Bayero University, where I also earned my Master of Engineering."

DAVID GAUDET (CTSR '83)

An instructor with SAIT's School of Business, David worked as digital content editor and producer of the fourth Canadian edition of MKTG, one of the country's best-selling post-secondary marketing textbooks.

GRANT HARVEY (WET '84)

"On Jan. 1, 2018 I became the Vice President and General Manager of ITW Shakeproof Automotive, based out of Elgin, Illinois. My wife, Germaine, and I will be moving to the Chicago area mid-year from our present location in Troy, Ohio."

GLEN McLEAN (IIT '84)

"After working for Gulf Canada for 12 years, I was transferred to Indonesia where I worked for Gulf Indonesia, PetroChina International, and ConocoPhillips for 11 years. For most of that time, I lived in Bali. Since 2007, I have been working for Occidental Petroleum in the desert of Oman and I rotate monthly out of Ottawa."

DONALD BERGER (COOK APPRENTICE '85)

Based in Hanoi, Vietnam, for 18 years, Donald is the founding partner, general director and chef patron of Don's Bistro & Don Viet JSC, an iconic restaurant that has been rated in the Top 50 Restaurants in Asia, ranked Number 1 Restaurant in Vietnam by Diners Club, and named 2017 Best Luxury Restaurant in the Vietnam Scenic category. A pioneer in many cities, his international experience with fine wine, food and cigars spans 38 years, and he holds the Award of Merit from the Escoffier Society. He has worked in major restaurants in North America and Europe and, since 1993, in Bangkok, Tokyo, Hong Kong and Shanghai.

TARLOCHAN SINGH (WET '85)

"I worked in Canada in Quality Assurance for 17 years. Today I am living in Chandigarh, India and running my own company, Goodwill Infinity Group, which provides study abroad and immigration consultancy."

KEVIN DAVIES (BXT '86)

"Following three years at City TV in Toronto, I moved to Bermuda to take a job with the Bermuda Broadcasting Company where I worked until 1997. I now own and operate a consumer electronics business."

EDWARD CANTWELL (ACT '88)

"Heating ventilation and air conditioning took me to North Carolina near Raleigh and Kitty Hawk, where I worked in nearly every part of the several branches of employment. I then started at a supply house and transferred to Myrtle Beach. I retired, went back to school and I am looking at a possible return to Calgary and university."

1990s

PATRICK NOVECOSKY (CTSB, TSR '92)

Patrick has worked as editor-in-chief of *Legatus* magazine in Southwest Florida since 2005. In 2017, he was appointed vice president of coalition relations for the Cardinal Newman Society. He is also president of his own company, NovaMedia. Patrick credits his study at SAIT — including three years as editor of *The Emery Weal* — for his career successes.

SHARON McREE (RT '94)

"I moved to Asheville, North Carolina and had a job as soon as I passed my exams, working at a 600+ bed hospital. I worked in the neuro trauma intensive care unit and later the emergency room. In 2012, I was named North Carolina Respiratory Therapist of the Year for a protocol I created for organ donors. It dramatically increased the number of lungs we were able to procure and lives we were able to help save. The protocol is now deemed best practice. I am proud to say I am a SAIT graduate."

SHIRLEY GOROSPE (CONE '95)

"I worked as a projects lead for an oil and gas construction company before switching to the field of safety. I studied to become a national construction safety officer, then an environmental health and safety administrator. I am now working as manager of technical support for World Safety Organization Philippines, and I also develop and facilitate safety courses throughout the Philippines."

ANETA KUCERA (TC '97)

"I worked in Canada and Czech Republic as a business travel counsellor. I have moved back to Czech Republic where I was born. I loved SAIT and hope my kids will take some courses... wish all the best."

Continued on page 44 ▶

RESCUE, RECLAIM, REJUVENATE

CALGARY-BASED BROTHERS ADRIAN AND MARTINUS POOL CREATE ART FROM RECYCLED WOOD INCLUDING OLD BARN BOARDS, RECYCLED FLOORING AND BROKEN SKATEBOARDS. MARTINUS TALKS WITH LINK'S ERIC ROSENBAUM ABOUT INSPIRATION, INVENTION AND WORKING WITH FAMILY.



ADRIANMARTINUS PHOTO

A)

ADRIAN POOL (ACPP '13) AND MARTINUS POOL (ACPP '18)

What inspired you to make art out of old skateboards?

First came our passion for skateboarding. Adrian and I started skating when we were 12. Then we saw the work of Haroshi, a Japanese artist who creates insane, next-level, high art sculpture out of skateboards. He's a huge influence. We also had access to our dad's woodworking tools, spent hours watching our grandfather, who was a seasoned wood turner, and worked construction. We started messing around with making things out of our old boards, then we asked our friends to give us theirs. It grew from there.

Where do you get your skateboards?

We have a network of skateboard shops in Calgary and surrounding communities that give us old and broken boards. Otherwise, they'd go into the garbage.

Why work with recycled wood?

Because it's good material and it's either free or cheap. When Adrian and I worked on construction projects, we'd ask for leftover hardwood flooring and other scraps. We don't do that anymore. We buy it from contractors and people who sell it online.



B)

A) "We manipulate line, colour, structure and form to create these multi-layered pieces, and we draw on influences such as modernism and cubism in our furniture design." B) Martinus (left) and Adrian Pool in their custom woodworking studio. C) A skateboard's platform — called a deck — is made of seven maple veneers, and every manufacturer uses different shapes, contours and colours. D) "Here I'm using a roughing gouge to make a rolling pin."



C)



D)

DYLAN LEEDER PHOTOS

What's the biggest challenge working with skateboards?

Old skateboards are in short supply here in Alberta because board season is short, unlike California where people skate — and break skateboards — all year long. We may get 200 broken boards in a year as opposed to down south where they get crates of them. That's why we use every bit of the board. We'll make bowls out of them or use bits of skateboards as accents in furniture made from reclaimed wood. It turns out the shortage of boards makes our creations unique.

What's it like working with your brother?

We each have our strengths. Adrian has always been the builder, and he's the technical one. I went to film school before attending SAIT. I'm more the designer, the creative brother. It's why it works so well. 1

CLASS NOTES

2017 ACCESS RECOGNITION AWARD

The City of Calgary's Advisory Committee on Accessibility presented SAIT's Accessibility Services department with the 2017 Access Recognition Award for its support of students with disability and accessibility needs. In the 2016/17 academic year, approximately 1,400 students received support through the department, which makes SAIT more inclusive by offering webinars about inclusive learning, a social skills coach, adaptive technology and even a "chill room" for students with sensory challenges.

MARTIN SPRINGL (BA '98)

"I moved to Czech Republic after convocating from the University of Lethbridge in 2001. I spent five years as a procurement manager, travelling to the United States and China for business. I moved to the United Kingdom in 2009 and came back to Czech Republic at the end of 2009. I have been running my own business for the past eight years, providing translation and interpretation as well as project management and consulting for the auto and machinery industry."

2000s

NICHOLAS GNYRA (PT '00)

"After SAIT, I attended the University of Alberta and was offered a job with Encana as soon as I graduated. After five years in Calgary, I was assigned to Dallas, TX to help get the Haynesville Shale into development mode. Next I became responsible for all strategic planning in the Dallas office which connected me to an oil and gas engineering consulting firm called Netherland, Sewell and Associates, Inc., which is where I am now. We do a significant amount of work in Mexico, but also in South America, Asia and Australia."

MARK LITTLE (APT '00)

Last December, Mark was appointed chief operating officer of Suncor and is responsible for all operations and many corporate services at Suncor. Prior to this, Mark was president of Suncor's upstream organization, which included all of Suncor's operated and non-operated oil sands, in situ, conventional exploration and production assets worldwide. Mark is also the chair of the board of directors of Syncrude Canada and is a board member of Energy Safety Canada and Accenture Global Energy.

TARIK ALSAI (CET '01, APT '03)

"After graduating, I worked for four years as a production engineer with Nexen in Yemen, then was transferred to Calgary to work as a reservoir engineer for another four years. I also obtained my Master of Science in Petroleum Engineering from Herriot-Watt University and a P.Eng status with APEGA. I left Nexen and joined Canadian Natural Resources Limited for less than one year. In 2012, I joined Total, where I started my journey in Dubai for approximately five years. I'm currently the reservoir manager for Total in Nigeria, looking after all assets that are operated by others."

JASON BOYD (CKP '01)

Jason has been honoured with the 2017 Distinguished Instructor Award from the Alberta Colleges & Institutes Faculties Association. He is an instructor in SAIT's Professional Cooking program and is the first SAIT instructor to receive this prestigious award.

NORBERTO FLORES (AXT '01)

Norberto worked at Western Avionics in Calgary for six years and in Switzerland before moving back to Calgary. He started his contracting job at Bombardier Aerospace, then moved to Seattle to work on the Mitsubishi Regional Jet (MRJ) — Japan's first commercial passenger jet — as an instrumentation engineer.

DUKWON CHO (ITP '03)

"I have been working in the network engineering field in Korea since 2004. Currently I am working for Cisco Systems Korea as a systems engineer and I am in charge of EN solutions such as software-defined access (SDA) and software defined wide area network (SD-WAN)."

96 YEARS

The School of Construction's Geomatics Engineering Technology program celebrates 96 years in 2018.

TANYA MELL (LA '03)

"After graduation, I worked at Burnet, Duckworth and Palmer while attending the University of Calgary where I earned a Bachelor of Arts degree in Law and Society. After earning my undergraduate degree, I moved to Denver and earned a MBA at the University of Colorado. I'm now working for a construction and engineering consulting firm in Denver."

ZAC TROLLEY (ENT '04)

Zac was selected by International Space University as the crew engineer for the Mars Desert Research Station, a space analog facility in Utah owned by the Mars Society that supports Earth-based research in pursuit of the technology, operations and science required for human space exploration. Trolley and five other members of MDRS Crew 188 spent two successful weeks on the Mars simulation mission.

CRAIG SNIDER (BA '05)

"I completed my degree with the University of Lethbridge, graduating in 2007, then departed for London to work in the finance industry. Luckily I landed a good job because, months later, Lehman Brothers collapsed. I went on to work at the Royal Bank of Scotland and spent three years as part of their corporate banking team. In 2011, I transitioned into FinTech, working for a few startups. I've been involved in creating new alternative lenders and even a new bank. Two years ago, I married a Scottish girl and we're planning to return to Canada."

JULIE (BOYGA) WOOD (AIM '06)

"I was the first AIM graduate to complete the Bachelor of Commerce in Entrepreneurial Management with Royal Roads University. Now, I'm finishing my Master of Innovation, Strategy and Entrepreneurship from

WESTMAN RECEIVES THE 2017 DOC SEAMAN INDIVIDUAL PHILANTHROPIST AWARD

The chair and CEO of Jayman BUILT, Jay Westman (BSC '84, HOND '13) received the prestigious 2017 Doc Seaman Individual Philanthropist Award at the Association of Fundraising Professionals Calgary and Area Chapter's Philanthropy Day luncheon last November. He was recognized for his support of the Resolve Campaign and the Mustard Seed, among others. He was also one of the Founding Builders who each gifted \$1 million to the construction of SAIT's Trades and Technology Complex.

Grenoble Ecole de Management while living in Montpellier, France and working in a French tech start-up. Having spent my entire career in telecom and technology, the skills I learned in the AIM program have served me far, far more than I would have ever thought. I still have fond memories of instructors like Wendy, Phil and Angela, and the skills they imparted upon me."

STEVE ZIEHR (CVT '07)

Steve's diploma led him to work for the largest supplier of waterslides and rides in the world. His travels took him across the U.S., to Europe, the Middle East and Southeast Asia with projects in Malaysia, the Philippines, Hong Kong, Shanghai and Northern China. He now has two companies: one provides global consulting on assisting persons with disabilities to secure meaningful work (paraworkforce.com); the other assists the top talent he's met in his travels come to Canada for work opportunities and consults with architecture, engineering and construction companies to improve their workforce programs (buildxquality.com).

IVÁN BORGES (RTBN '08)

"I've been working mostly as a reporter. I worked in Calgary as an audio editor at 660 News, then returned to Mexico in 2010 and worked in TV and media. Today I am the owner of Puebla News, the only website in English in Puebla City, my hometown. I also work as a TV reporter for one of Mexico's biggest stations, TV Azteca. I am a proud SAIT graduate and thank all my classmates, especially Janelle Lane, Sarah Offin, Lauren Paullen, Steve Mclean and teachers Richard Stroobant, Steve Olsen, Shelly and Shane who helped me be who I am now."

BRANDON DUCHARME (IET '08)

"I am living and working in Queenstown, New Zealand for Opus International Consultants Ltd. as a senior project manager involved in municipal infrastructure transportation and water engineering projects. Queenstown is a great place to live and work, and the entire region is experiencing immense growth in water and transportation infrastructures due to the increasing tourism and overall demand to be in Queenstown. One of the most surprising realizations I've had since being in New Zealand is how Canadian and Kiwi cultures are so similar yet so far away. Find me on LinkedIn: [linkedin.com/in/brancouver/](https://www.linkedin.com/in/brancouver/)"

SPENCER LINDSKOOG (AMWP '08, APM '14)

"During my apprenticeship, I worked for an oilfield equipment manufacturer and commissioned and repaired oilfield equipment in Alberta, North America and overseas. After completing the program, I was offered a rotational position to lead maintenance and commissioning of rigs in the Sultanate of Oman. While on rotation, I started my Applied Business certificate, again at SAIT, and obtained my Blue Seal designation. Next I started as service quality supervisor for a global service provider. In 2016, I was offered the operations management position and my wife, two kids and I moved to the Sultanate full-time. I will always remain a proud, Blue and Red Seal Journeyman Millwright."

2010s

ANESSA MOHAMMED (TVT '11)

"I graduated from SAIT's TVT program as an international student from Trinidad and Tobago. I remained in Calgary having obtained a post-graduate work permit; however, upon the expiration of the work

permit in August 2014 I was required to return home to Trinidad. I was able to have my SAIT TVT diploma accredited locally after a bit of difficulty but I since have not been able to find suitable employment within my field of study. I do miss Calgary and Canada and would like to return someday if given the opportunity."

RON MONTGOMERY (TVT '12)

"After graduating, I packed up my life and moved to Christchurch, New Zealand. I started working with House of Travel and have achieved a lot of success including being awarded the coveted Rookie of the Year award in 2014. I am currently in the process of launching my own escorted touring company with the assistance of my employer — so big things ahead, I hope."

KAT HASSARD (APBP '13)

SAIT pipe trade instructor Kat Hassard was interviewed by fellow pipe trade instructor Tim Carson of the British Columbia Institute of Technology for his podcast The Guild, which focuses on life and leadership in the trades.

ROB SHIELDS (ARFP '15)

"After completing my apprenticeship program, I worked for a couple of years and I have since moved to Spain with my wife and daughter. Currently I am working as a full-time father, raising my daughter and enjoying the chance to see her develop and grow while at the same time taking classes in the Catalan language to help my integration into this new culture."

MIGUEL BRANCO (FVP '17)

"Since graduating, I've moved to Los Angeles to take a job offer as a trailer editor. I've since worked on projects for HBO, Netflix and 20th Century Fox."

RUTGER VAN DORP (HMGT '17)

"My first job after graduation was working as a flight attendant for a low-cost carrier. In 2017 I got the job as a flight attendant for KLM Royal Dutch Airlines. I apply many of the skills that I learned in hospitality management to the job I have today."

IN MEMORIAM

It is with sorrow that we share the obituaries of SAIT alumni, students, instructors, staff and friends. Links to their individual obituaries are listed online at sait.ca/alumni. Our thoughts are with their families and friends.



“If you own a roof, you probably have the same problems [as most homeowners do] of finding help to do those small jobs around the house.”

NAOMI PEREIRA (AT '05)

THE IDEA CAME TO NAOMI PEREIRA in the middle of the night. After days spent trying to find a reliable contractor willing to do a simple repair in her mother's home, Pereira realized she could use technology to help homeowners hire skilled tradespeople and, at the same time, help unemployed tradespeople find work during an economic downturn. Combining her knowledge of industry and her entrepreneurial savvy, Pereira and co-founder Rafael Pieters created JobJar, an online directory that connects homeowners with what she calls “skilled doers.” Launched in January 2016, JobJar has been named by the Calgary Chamber of Commerce as one of the most promising start-ups of 2017. “If you own a roof, you probably have the same problems [as most homeowners do] of finding help to do those small jobs around the house,” Pereira says. “We’re solving this problem with the use of technology and we’re closing a huge gap in the industry.” While JobJar lets homeowners make their choices based on estimates and reviews, the online platform also gives tradespeople essential tools for invoicing, scheduling and self-promotion. In 2018, JobJar's expansion plan will involve growing its database in cities including Winnipeg, Vancouver, Edmonton and Calgary. **1**



Naomi Pereira talks about entrepreneurship in an On the Job profile in the online version of LINK. Find it at sait.ca/alumni/link-magazine.

TEXT BY GISELLE WEDEMIRE | PHOTO BY TRUDIE LEE

CALENDAR OF EVENTS

For more detail and additional events, visit sait.ca/alumni and click on Events.



Cheer on SAIT Trojans soccer, hockey, volleyball and basketball teams this coming fall. Find the full Trojans game schedule at sait.ca/Trojans



The Tastemarket

Open Monday to Friday
7 am – 5:30 pm
444 7 Ave SW

The Tastemarket by SAIT is both an urban eatery and an innovative learning environment for future culinary entrepreneurs. Drop in to enjoy SAIT-made charcuterie, woodstone flatbreads, a decadent bakery and a line featuring daily student creations. More detail: tastemarket.ca

SAIT Curling League

Season: October – March
Thursdays, 4:30 pm
Calgary Curling Club

The SAIT Curling League is looking for teams and interested individuals to join its community of friends, colleagues and alumni for the 2018/19 season. Email kevin.campbell@sait for more information.

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MAY
31

AlumNight at Tool Shed Brewing Co.

If you are a new or recent SAIT grad, please join us for a fun and casual night of networking and professional development. Hear from alumni in industry, learn about career resources available to you at SAIT, and enjoy a tour of the brewery with Tool Shed co-founder and SAIT alumnus, Jeff Orr. Details and to register: sait.imodules.com/ngnmay18

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JUN
6

Ocean Alley with special guests

8 pm
The Gateway
Advanced tickets \$10 at The Gateway, MC107 and Sloth Records; \$12.50 + fees through Ticketmaster; free for students with student ID
Australian band Ocean Alley brings its psych, rock and reggae fusion to Canada for the first time.

JUN
12

Spring Convocation Ceremony 1

By invitation
Jubilee Auditorium
1:30 pm
SAIT welcomes our newest alumni to the family: School of Construction, School of Health and Public Safety

JUN
13

Spring Convocation Ceremony 2

By invitation
Jubilee Auditorium
9 am
School of Information and Communications Technologies, School of Transportation

JUN
13

Spring Convocation Ceremony 3

By invitation
Jubilee Auditorium
1:30 pm
School of Business, School of Manufacturing and Automation

JUN
14

Spring Convocation Ceremony 4

By invitation
Jubilee Auditorium
9 am
MacPhail School of Energy, School of Hospitality and Tourism

JUN
22

Alumni Cooking Class

5:30 pm
Culinary Campus
Enjoy A Taste of Summer at this evening exclusively for SAIT alumni!
Registration opens June 11 at 10 am sharp. Details and to register: sait.imodules.com/tastejune18

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AUG
2

Second Annual SAIT Centennial Classic

Priddis Greens Golf & Country Club
Proceeds from this golf tournament will be used to support scholarships for student athletes enrolled in SAIT Trojan Athletics and for students in SAIT's School of Transportation. Email brett.windle@sait.ca or call Brett at 403.284.8908 for information or sponsorship inquiries.

AUG
16

School of Construction 23rd Annual Golf Classic

New location!
Springbank Links Golf Club
Proceeds will be used to support scholarships for students in SAIT's School of Construction. Email james.foster@sait.ca or call James at 403.210.4322 for more information or sponsorship inquiries.

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SEPT
4

Welcome to the Family Pancake Breakfast

(hosted by SAIT Alumni)
9 am – 11 am
Join your fellow SAIT grads as we welcome today's students to another year at SAIT! Interested in volunteering? Email us at alumni@sait.ca
*Previous pancake flipping experience not required

SEPT
5

Wingo

Register at 5 pm
Bingo from 5:30 pm – 7:30
The Gateway
Alumni are invited to join the fun! The bingo is free and the wings are just \$5 per pound.

SEPT
7

SAIT's Great Big Book Sale

10 am – 2 pm
Free admission
Irene Lewis Atrium, Stan Grad Centre
SAIT hosts its second annual book sale in recognition of UNESCO's International Literacy Day. Proceeds will support SAITSA's annual Adopt-a-Student Family campaign in December.

SEPT
12

Themed Trivia

Team registration at 5 pm
Trivia madness at 6
The Gateway
Free to play
Alumni are invited to join the fun for themed trivia! Open to teams from one person to ten people. Enjoy \$5 wings and a chance to win prizes for first place, second place and team name.



SAIT Alumni



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ON THE JOB





Production Designer Trevor Smith (TSR '99, left) and Set Decorator Chris Smith (CTSF, TSR '95, right) work hand-in-hand to deliver the iconic aesthetic of Canada's longest-running drama, *Heartland*. Chris joined the show in season 3 and Trevor in season 10 and, although not related, the two have developed a synchronicity and familial relationship by creating sets together like Ty and Amy's loft.

“With each season and each episode, we get to revisit what we’ve done before and make it better. It’s intense and fast-paced, but it’s fun.”

IT'S ALL IN THE DETAILS TREVOR SMITH & CHRIS SMITH



roduction design and set decoration are subtle and collaborative crafts. Whether we're adding new elements to *Heartland's* iconic Ranch House or Maggie's Diner or developing a new set from scratch, we're always working to create a plausible, realistic and breathing environment for our actors. We want every element to be so perfect, so believable, that it becomes invisible.

At the very core of our work, we're filmmakers and storytellers, too. That's what we studied at SAIT and it's what makes us good at production design. Everything we do is centered on story points, plot-driven elements and character. *As we add texture, colour and layers to a set, we walk through the entire journey of a scene with all aspects of production in mind — from lighting and camera angles to wardrobe. We scrutinize every detail down to the shape and colour of a coffee cup.* They are little things, but we put great energy and thought into them.

Looking back at our careers, neither of us expected to become part of a Canadian cultural phenomenon. That's the fun and the adventure of the film and television industry — you sort of fumble your way into your first job and somehow something sticks. We each found our individual paths and now, here we are together, creating the look of *Heartland*, an Alberta-made television series that is licensed in 120 countries and captures an audience of more than one million viewers each week. Fans are drawn to this frontier lifestyle at the edge of modernity — the myth of the West. There's also something about its traditional family values that resonates with people — a value set that some people feel is fading.

To do our jobs, we're constantly driving around beautiful southern Alberta. We research, draw, shop, build and manufacture. With each season and each episode, we get to revisit what we've done before and make it better. It's intense and fast-paced, but it's fun. There's always this magic window in the hours before cast and crew arrive on set where we get it to ourselves. While trucks are being packed up and the sun is going down, we join the rest of the art department and stand where we think the cameras will be. It's a chance to appreciate our accomplishment together as a team and to take in a job well done. ❶

