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MODERNA VS PFIZER

Which vaccine is better? UW experts weight in on the debate. P2



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Pfizer vs Moderna — UW experts weigh in on the debate

Jansher Saeed
Editorial Assistant

Pfizer and Moderna recently announced their vaccine candidates, both reporting over 90 per cent effectiveness in preventing the COVID-19 virus.

“It appears we now have two promising vaccine candidates. Both vaccines use engineered RNA, which is a new approach for vaccine development. Pfizer’s vaccine is the result of a partnership with German biotech company BioNTech.

Moderna, an American biotech company, developed their vaccine together with the U.S. National Institutes of Health as part of the country’s Operation Warp Speed program,” Kelly Grindrod, a UW Professor who is Canada’s Pharmacist of the Year and an expert in vaccines, said.

While both vaccines claim to be highly effective against COVID-19, Professor Grindrod notes that a gamechanger difference between the two is the storage temperature levels needed to keep the vaccines function-

al.

“The Moderna vaccine [...] does not appear to require the ultra-low temperatures to be stored that we heard about with the Pfizer vaccine. This bodes well for both vaccines as it suggests mRNA vaccines can be manufactured to be stable at normal vaccine storage temperatures,” Professor Grindrod said.

Pfizer’s vaccine needs to be stored at ultra-low temperatures of around -70 C, requiring specialized and expensive freezers. Alternatively, Moderna announced their vaccine remains stable for up to six months at a modest -20 C.

This puts Moderna at an advantage — the vaccine can be serviced to rural and remote locations and developing countries where it would be difficult to store and transport the Pfizer alternative.

According to the company’s press releases, every vaccinated person will require two doses of Moderna, three to four weeks apart.

Though both announcements appear promising, Professor Grindrod advises taking a cautious optimistic stance.

“The press releases shared that the vaccines are 90 to 95 percent effective, but we need to be careful and avoid committing to what is being termed ‘science by press release.’ Everyone is now waiting to see more traditional scientific papers or reports, which will help us understand how much is known and what we still need to know. However, these press releases are a glimmer of hope in an otherwise bleak time,” Professor Grindrod said.

While it may serve as a glimmer of hope for some, concerns around vaccine hesitancy are on the rise, as conspiracy theories and misinformation surround the vaccines’ announcement.

“I think that many people will have questions about the COVID vaccine — is it safe, who was it tested on, can it be given to children, seniors, individuals with diseases such as diabetes?

How well we can answer these questions — and whether people are happy with the answers — may impact individuals’ willingness to get vaccinated,” Nancy Waite, UW Professor and Associate Director of Clinical

Education, said.

As experts present more research and factual commentary, individuals will continue weighing the pros and cons of the vaccines — a process Professor Waite refers to as moving along the vaccine decision-making continuum, a term that she prefers over vaccine hesitancy, which implies an adverse decision.

Professor Grindrod anticipates that vaccinations will begin as early as 2021, where front-line workers will be the first ones to receive the dosages. Essential workers will most likely follow, then long-term care individuals, areas hit by the virus the hardest, then at large.

“The push right now is to have a broad definition of ‘front-line’ to make sure we include doctors, nurses, and pharmacists, but also those in low paid healthcare positions which have high infection rates, such as personal support workers, nursing aides, and hospital cleaning staff. By having a broad definition of ‘healthcare worker,’ the early vaccines would reach the hardest-hit communities first,” Professor Grindrod said.

UW remembers prof Alan Plumtree

Neha Lakshman Mandenganam
Assistant News Editor

Alan Plumtree, a mechanical engineering professor at the University of Waterloo, passed away earlier this month on Nov 5.

Professor Plumtree played a major role in establishing the mechanical engineering department at UW.

Professor Plumtree created a hand operated pump in the late 1970’s alongside Alfred Rudin, after being approached by the International Development Research centre. The very same hand pump is still in use in many countries, all over the world. The pump provides safe drinking water, and is made using versatile materials that can easily be manufactured and repaired by villagers.

Mary Wells, UW’s new Dean of Engi-

neering, said Plumtree was responsible for her joining Waterloo Engineering in 2007.

Wells was working as a materials engineering professor at the University of British Columbia when Plumtree contacted her about a position in Waterloo’s mechanical and mechatronics engineering department.

“He was an incredibly kind and supportive person who encouraged me to apply to Waterloo Engineering. After I was hired, he generously became a mentor to me when I took over teaching some of the courses he had taught. I will miss him very much,” Wells said.

Professor Plumtree received his Doctor of Science degree from the University of Nottingham and, thanks to several achievements and accolades throughout his years, attained the title of Distinguished Professor Emeritus of Mechanical and Mechatronics Engineering from UW.



UW professor Niayesh Afshordi comments on herd immunity and the fight against COVID-19

Jansher Saeed
Editorial Assistant

During the early stages of the pandemic, there was significant debate about which methods would prove most effective for flattening the COVID-19 curve.

One suggested way was herd immunity, a method in which the virus is allowed to spread with few restrictions so populations become naturally immunized to the virus.

Physics and Astronomy Professor at UW Niayesh Afshordi has applied tools from observational cosmology to infectious disease modelling, specifically COVID-19, to understand the outcomes of herd immunity.

"If there are enough people in a community who are immune to a contagion [...] if it's an infectious disease, but it cannot actually find a person who is susceptible, then it's not going to spread [...] For that, you usu-

ally need a significant fraction of the population to become immune – either through vaccination or natural infection," Afshordi said.

If individuals enter communities where a fraction of its people have already developed immunity through vaccines or prior infections, some exposures to the virus will not lead to new infections.

"If a large enough fraction of the community has immunity [...], then it is said that the community has reached 'herd immunity,'" Afshordi said.

Afshordi compared the beginning of the COVID-19 pandemic to rolling a bowling ball downhill – if a bowling ball is left to roll without intervention, predicting where the ball will end up and at what speed is difficult, and one can easily overshoot the target.

"If you just let the virus run wild, you're going to, in fact, overshoot herd immunity – you're going to get more people killed, more people infected than what's required

for herd immunity," Afshordi said.

Here, Afshordi stressed the importance of using other mitigation methods, such as masks, social distancing procedures, and stay-at-home orders, to help support herd immunity and prevent future outbreaks.

He adds that herd immunity is not a stand-alone strategy to combat COVID-19. Instead, the eventual probability/likelihood of a population developing herd immunity acts as additional information that can help experts design a strategy to control the pandemic/virus within communities.

Each strategy will vary depending on the community.

"In a rural community without many social contacts, it may be feasible to reduce [infection rates] using non-pharmaceutical interventions, for a sustained period of time, until a vaccine becomes available and widely administered," Afshordi said.

For urban areas, the reality is quite different — stricter measures that last more

prolonged periods are needed to achieve the desired effects.

"In this case, the community may decide on a combination of restrictions and protective measures to keep the new infections at a low level, until herd immunity is reached.

This is a risky strategy.

It could lead to many deaths, and other long-term conditions, due to COVID-19 infections.

Unless the most vulnerable citizens are well protected from those infected. That is why it is still necessary to use some level of non-pharmaceutical measures to minimize the daily new infections and its possible spread to those vulnerable," Afshordi said.

The professor said vaccination is the best way to achieve herd immunity.

He approximates that if 60 to 70 per cent of the population vaccinates, others might not have enough contacts to spread the infection further.

How to celebrate Xmas during COVID-19

Genevra Mae Villar
News Editor

To keep our loved ones and our communities safe this holiday season, traditions will have to be modified.

As the Christmas holiday approaches and COVID-19 cases remain on the rise, Premier Doug Ford asked Ontarians to celebrate the holiday only with people within their household at a press briefing on Nov. 25, 2020.

"If you live alone you can join one other household. Please don't have big holiday parties, no large gatherings," he added.

Ford suggested virtual gatherings as a safer alternative.

A provincial news release states that anyone "living away from home, including those studying at colleges and universities, should consider doing a self-quarantine or reducing close contact with others, 10 to 14 days before returning home for the holidays."

As of Nov. 30, there are 554 active cases in the Waterloo region and the total number of outbreaks is reported to be 22.



CANDICE CHENG

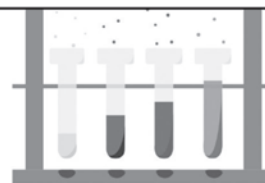
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THAT THE UNIVERSITY OF WATERLOO IS SITUATED ON THE TRADITIONAL TERRITORIES OF THE ATTAWANDARON (NEUTRAL), ANISHNAABEG, AND HAUDENOSAUNEE PEOPLES. THE UNIVERSITY OF WATERLOO IS SITUATED ON THE HALDIMAND TRACT, LAND PROMISED TO SIX NATIONS, WHICH INCLUDES SIX MILES ON EACH SIDE OF THE GRAND RIVER. THEREFORE, IMPRINT RECOGNIZES AND RESPECTS THIS LAND THAT IT IS SITUATED UPON.

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A new screening solution: COVID-Net

Kartikey Sinha
Reporter

Over the past several months, PCR has become the gold standard for testing COVID-19 cases. But is it the best type of test?

“[PCR tests] have very high specificity, but people have recently found that sensitivity isn’t so great, depending on when you measure it,” Dr. Alexander Wong, Associate Professor at UW, and the Canada Research Chair in AI and Medical Imaging, said.

“A recent study also found that the longer somebody has had COVID-19, the less likely they are to be detected,” Dr. Wong said.

“But the most important thing is that while PCR test tells you if someone has COVID-19 or not, it doesn’t tell you about the progression of the disease.”

As a potential solution, Dr. Wong has been collaborating with the COVID-Net project, an open source project aiming to improve detection via X-ray imaging.

“COVID-Net is an open source open access initiative where the underlying goal is to use deep learning in the case of COVID-19 screening,” Dr. Wong said.

“It’s based on medical imaging, with chest X-rays and CT Scans being the primary ones, and we’re expanding beyond that. These help us determine the level of progression of the disease, so the doctors and the clinicians can have a better idea on how to handle it.”

Open source projects are collaborative by nature, and COVID-Net is no exception.

“A lot of my students have become inspired by this initiative and joined our team. We’ve also had clinical institutes from around the world collaborating with us as

they’re interested in leveraging AI to help with the pandemic. We’ve also received a lot of support from a lot of corporations who believe in the cause and they’ve provided many resources to undertake this project,” Dr. Wong said.

“We have actually released COVID X, which is the largest dataset of its kind with lung chest X-rays and people from all around the world have been leveraging it for their own experimentation, testing and development. We have also continuously released COVID-Net models for the world to use and expand upon –and they have. We recently released a COVID-Net CT model for detecting COVID-19 based on chest CT scans.” Dr. Wong stated when asked about the progress in the past six months.

“We are treating COVID-Net as a complementary technology. For COVID-Net, the actual acquisition process will be done in

minutes and if it passes through AI and it is able to actually provide results in seconds. This way, doctors and clinicians can figure out at least how to take care of a patient while they’re waiting for the more accurate PCR test,” Dr. Wong explained.

“The future for COVID-Net is quite interesting. We continue to release regular updates to our datasets as well as models so that the entire world can use it and build upon our own experiences,” Dr. Wong said.

Dr. Wong and his research team have also been working on other related projects.

“We’re also building an open source front-end platform so doctors and clinicians who are not experts on deep learning can use the platforms directly and visualise, organise their images and so on and so forth.

Dr. Wong is looking for collaborators to join his research team and contribute to the advancement of COVID-Net.

New device uses microwaves and AI to detect early-stage breast cancer

Sarah Hammond
Reporter

Omar Ramahi and his team at the University of Waterloo have developed a prototype to detect early stage breast tumors within minutes. The system combines artificial intelligence and harmless microwaves to make a device that will save many lives. This device takes away the dangers and side effects of using radiation to screen for tumors.

Ramahi is a Electrical and Computer Engineering Professor at UW in charge of this project. When asked about his device he said that “it will flip things upside down completely. Our technology paradigm is to have a simple, inexpensive device that can be available at low cost clinics.”

It took 15 years and, surprisingly, less than \$5,000 to build this life-saving technology. The device is essentially an examination table with a box where one breast would be hit with microwaves. These waves would then bounce back and be analyzed by the AI technology in the computer.

“Our technology is a different way of thinking. People wanted to use microwaves in the past for imaging, but nothing has really translated into a viable clinical technol-

ogy,” Ramahi said. “In the year 2001 we were doing things similar to what others were researching, using microwaves for imaging of breasts. But after a while, nothing was working, so we shifted the paradigm. We started thinking differently – we said why don’t we just use microwaves to just detect if there is a problem or not. And that’s where our work took off in a very positive direction.”

Each breast is compared for abnormalities of tissue composition by comparing them against each other. The sensitivity is such that abnormalities less than one centimeter can be detected. It even has capabilities that a mammogram does not, such as screening dense breasts.

Currently, women have to wait for months to get MRI imaging done – time during which the cancer can progress. “Typically, when a woman feels something it is a little bit late. Our goal is to test women very quickly and regularly, before anything could happen,” Ramahi said.

This would not be the only test done to prove a diagnosis, as more tests would need to be completed following a positive result. However, this method would increase the likelihood of early detection of early stage cancer, especially since the device itself is inexpensive and could easily become widely available. Health care facilities could save a

lot of money by using this device for screening, before following up with more expensive tests to confirm the diagnosis.

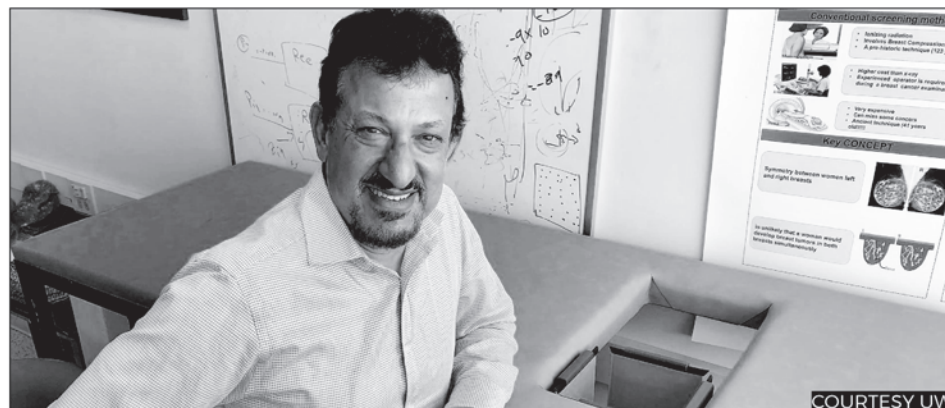
This technology is a lot safer than other screening devices such as mammograms and MRIs. “The energy that is pumped into the female breast is less than what is pumped into my head when I talk on my cell phone. The energy is very low, and the waves are non-ionizing,” Ramahi said.

The team have started their own company – Wave Intelligence Inc. of Waterloo – with the intention of commercializing their de-

vice. The pandemic has slowed the start of patient trials, however they hope to start these trials as soon as COVID-19 restrictions will allow. Omar Ramahi has been helped by PhD students Maged Aldhaeabi, Thamer Almoneef, and Hussein Attia.

Ramahi leaves this message to the UW community: “Think bold about health issues. There is so much to do in the biomedical world. It is incredibly rewarding to think that you can help even a single woman.”

For more information, contact Omar Ramahi at omar.ramahi@uwaterloo.ca.



Omar Ramahi, an Electrical and Computer Engineering Professor at UW has developed a prototype to detect early stage breast tumors within minutes.

The new 5G network is 4G on steroids

Sarah Hammond
Reporter

Recently, a new technology has become available that will change wireless connections globally. 5G networks are quickly becoming widespread across the country, with Rogers holding the record for largest 5G network in Canada to date.

Rogers has recently partnered with the University of Waterloo to research the capabilities of 5G, making UW one of Canada's first Smart Campuses — a campus that is 5G connected. Catherine Rosenberg, Professor in Electrical and Computer Engineering at UW, plays a critical role in this partnership. She also holds the Canada Research Chair in the Future Internet and the Cisco Research Chair in 5G Systems.

"5G is 4G on steroids. It will do what 4G is doing but better for normal users like you and I, and it will do many things that 4G does not do," Rosenberg said.

LTE, which stands for long-term evolution, was the precursor to

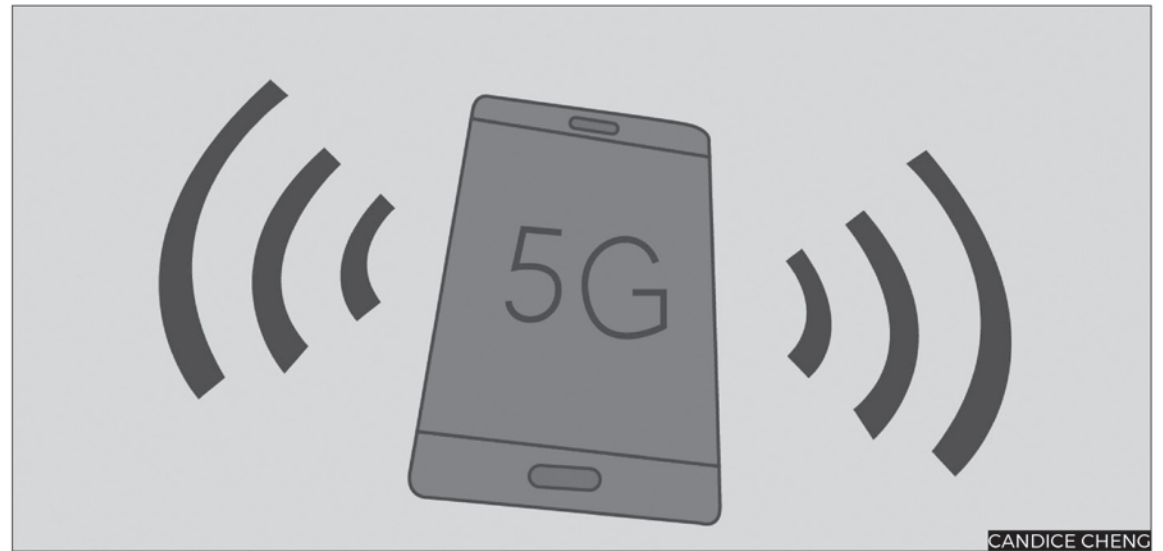
5G and is very similar to 4G. The difference between 5G and earlier technologies will allow for significant advancements in many regions of the workforce.

"[5G] will do what we call critical servicing - for example for autonomous driving, remote surgery, virtual reality. To do those things, 5G relies on many new technologies, the most well-known of which is called millimeter wave. It uses a new band of the spectrum that was not used before, because it was very hard to use," Rosenberg said.

There are many types of research being conducted at UW through this multi-million-dollar partnership.

"Plenty of different types of research, from application-led research where we try to see how 5G will change the way we do things - for example autonomous busses or verifying water quality. We are also researching more technical issues to make sure that the technology delivers on its promises," Rosenberg said.

It is clear that research into this new wireless technology is critical



CANDICE CHENG

and will help a lot of people. 5G will allow significant advancement in many fields and create new avenues for research and development of new products and services.

Unfortunately, the pandemic has slowed down research efforts considerably. "COVID-19 has an impact on what we do because we were planning to test beta and experiment on campus which has

become not easy to do," Rosenberg said. Hopefully, these real-life tests will be able to continue more easily in the near future. In the meanwhile, other types of research are ongoing.

Rosenberg is hopeful for what this new area of research means for students and how it opens up the world of technology and its capabilities.

"I think students should be ex-

cited about this, they are enabling technologies to develop new applications and usually students have a lot of great ideas. Globally, it is quite exciting. There are plenty of new opportunities [for students]," she said.

For more information, refer to the article 'The University of Waterloo and Rogers Partner in Real-World 5G Network Research' by Sarah Hammond.

This stance-detecting AI will help us fact-check fake news

Shaza Syed
Reporter

The issue of widespread fake news is a growing problem now more than ever before. Researchers at the UW teamed up with DarwinAI to develop Artificial Intelligence (AI) technology that could potentially put an end to the issue.

Researchers used a type of deep learning software known as a transformer - specifically the deep bi-directional transformer RoBERTa — to find relevant pieces of information within bytes of data.

"The beauty of bidirectional transformer language models is that they allow very large text corpora to be used to obtain a rich, deep understanding of language," Alex Wong, co-founder and chief scientist at DarwinAI, said.

"This understanding can then be leveraged to facilitate better decision-making when it comes to the problem of stance detection."

The AI software was able to detect the stance of an article by comparing its title with the information contained in its body.

Based on this comparison, it could compute if the claim made by the title agreed or disagreed with the information in the article, discussed the information without

a stance, or was simply unrelated.

"What an AI system can do is provide some statistical assurance about the claims in a given news piece. That is, given a headline, they can surface that, for example, 5,000 'other' articles disagree with the claim whereas only 50 support it. Such a distinction would serve a

warning to the individual to doubt the veracity of what they are reading," Wong explained.

However, researchers acknowledge that this AI model has its limitations, and should be used alongside other methods to fact-check articles.

"A potential unintended neg-

ative outcome of this work is for people to take the outputs of an automated fact-checking system as the definitive truth, without using their own judgment, or for malicious actors to selectively promote claims that may be misclassified by the model but adhere to their own agenda," the researchers explained in their paper.

This research exemplifies the power of combining AI abilities with human expertise to solve a problem.

"In general, we combine the experience and creativity of human beings with the speed and meticulousness afforded by AI. To this end, AI efforts to combat fake news are simply tools that fact-check and journalists should use before they decide if a given article is fraudulent," Wong said.

Moving forward, the team hopes to bring AI into real-world use and continue research on using AI to validate the truthfulness of articles.

“What an AI system can do is provide some statistical assurance about the claims in a given news piece”

ALEX WONG, CO-FOUNDER AND CHIEF SCIENTIST AT DARWINAI



Holiday season gift guide: small business edition amidst COVID-19

Tashfin Salam Orna
Reporter

The 2020 holiday season is approaching soon, and COVID-19 is spreading fast. Small businesses are some of the hardest hit during the pandemic, forcing a number of local favourite stores to pivot their operations or even close their doors permanently.

Although small businesses are resilient, they are also in dire need of active community engagement. As we embark onto the season of showering our loved ones with the love language of receiving gifts, grabbing those gifts from a local small business can be the perfect way to do so.

Here's what some of the small businesses in the Waterloo Region are offering for the 2020 holiday season.

Sweet Dreams Tea Shop Speciality: Bubble Tea and Gifts

Right across from UW's Engineering 5 building, located in the iconic "University Shops Plaza" is this bustling little shop with a cozy ambiance, serving bubble tea, coffee, and desserts with complimentary board games. However, as a result of COVID-19, Sweet Dreams pivoted to a takeout bubble tea and an online gift shop store.

The pandemic didn't shy away from making it challenging for a shop beloved by so many Waterloo Warriors. "It's been very difficult during COVID-19, but it's also getting us to become more creative," Jinny, the owner of Sweet Dreams said.

Sweet dreams has several holiday specials. "We're definitely trying to think outside the box to promote shopping local," Jinny said. "We have some promos coming up, like buy 1 get 1 free bubble tea to encourage people to visit us."

Sweet Dreams' Facebook page has an elaborate listing of the holiday specials being offered this season, including holiday special tea, such as Hot Salted Caramel Oolong, as well as free handmade stocking stuffers with a \$30 purchase of gift merchandise. Follow them on Instagram to stay updated on their offers.

Gifted

Speciality: Gifts and Stationery

Located in Midtown Waterloo, "Gifted" is a gift and stationery boutique. For the gift giving and receiving season, Gifted is offering a variety of holiday specials, in addition to necessity items from greeting cards, socks, candles, and much more.

The local vibes are strong in Gifted's selection of items, with a variety of Waterloo- and Kitchener-themed items. If you are looking to send your cartography-nerd friend a gift while showing off your city, there are even holiday themed postcards with maps of Kitchener and Waterloo.

Customers can shop online or in store and get a glimpse of their collection on their Facebook, Instagram or Twitter.

Four All Ice Cream Shop Speciality: Hand-crafted Ice Cream

Holiday seasons are notorious for being the "cheat season" for those counting calories, and sweet treats are to blame. Located in Uptown Waterloo, Four All Ice Cream Scoop Shop lets you indulge in the sweetness of desserts without feeling guilty this holiday season.

This ice cream parlour was founded by Ajoa Mintah in 2016 with a dream to make "handcrafted ice cream using all-natural, locally-sourced ingredients," and four years later, the dream turned reality is staying true to its word.

For this holiday season, along with releasing a holiday menu, the store introduced the "12 Days of Ice Cream Minis Gift Box" initiative, where each gift box comes with 12 mini cups of ice cream from the holiday menu, a \$25 gift card, and a surprise gift.

If your loved one is an ice cream lover, and you wish to acknowledge that with a gift, Four All Ice Cream has revealed their "Ice Cream Themed Gift Giving Guide" on Instagram.

The founder, Mintah, graduated from the UW Chemical Engineering in 2001, read her story featured on the Waterloo Magazine

here. If you're looking to satisfy your sweet tooth, support your local business, support a Waterloo alumnus and a Black-owned business, then this is your place! You can order online with free delivery from their website or give them a follow on Facebook, Instagram or Twitter.

Words Worth Books Speciality: Books

Voted the 2020 Best Bookstore by Community Edition Waterloo, Words Worth Books, located in Uptown Waterloo, is an independent bookstore that has been around for over 30 years.

"At the start of lockdown, Wood Worth Book hustled and pivoted overnight to promote online sales. We have the most amazing staff who weathered the change with determination, even as we felt less and less like booksellers over the past months," their Facebook page claimed.

Words Worth Books has an immense inventory of books, and for the holiday season, they are offering the "Holiday Gift Guide 2020

Picks" with a variety of genres ranging from fiction, non-fiction, travel, nature, and many more.

Books have always been a "timeless" gift and the pandemic made many of us rediscover our hobby of reading. 2020 saw some notable literary works and if you wish to add them to your shelf, make sure to get it from Words Worth Books or your local bookstore. You can order online from their website or follow them on Facebook or Instagram.

Support local businesses on Small Business Saturday

This holiday season's retail shopping event Small Business Saturday is about supporting your local independent stores.

"Small Business Saturday is the day that we work on every year to celebrate the contributions of small business owners, to encourage Canadians to go out of their way to support small businesses," said Dan Kelly in an article by Global News.

Local businesses give us a sense of community, and supporting them supports our community. If you don't know where to start, there is a list of small businesses put together by The Cindy Cody Team. If you are looking to support Black-owned businesses in the Region, there is a list put together by African Caribbean Black Waterloo Region.



COURTESY FREEPIK



BRITNEY CHENG

A story of clothing: Dale Boyer's *Clotheswap*

From the “made do and mend” rhetoric of the 1940s to today’s “fast fashion” culture, explore the female narrative presented through clothing.

Jansher Saeed
Editorial Assistant

Like people, clothes age, and along with it, our love for them. But what comes with time is a need for something new, and old clothing could benefit from this too — that’s where clothing swaps come in. A party of sorts, clothing swaps are where people come together to trade and barter their clothes with one another. But beyond the clothing itself lives a story.

“Clothing swaps are not really about the clothes. It ends up being about people’s relationships, talking about your life kind-of catching up,” Dale Boyer, a UW alumnus, Director, and Co-writer of the play *Clotheswap*, said. *Clotheswap* is a play devoted to telling the stories clothing swaps create.

The show examines female narratives presented through clothing — from the “made do and mend” rhetoric of the 1940s to today’s “fast fashion” culture. *Clotheswap* is an inclusive, interactive, and body-positive theatre experience. *Clotheswap* also includes an actual

clothing swap event and gives viewers free access to the Textile Museum Of Canada in Toronto.

Though both Boyer and *Clotheswap* have enjoyed recent success, including securing the Canada Council’s Digital Originals Micro Innovation Grant, it was Boyer’s experience as a small artist 15 years ago that inspired the show.

“I started doing these clothing swaps mostly out of necessity because I was like, a broke artist with no money. And so it was kind of a good opportunity to have people come over, have a night in, you know, drink some wine, and swap clothes with my friends. And we started doing it for years. And then a couple of years ago, it kind of struck me as like, you know, this might make a good show,” Boyer said.

She pitched the idea to co-writer and friend Amanda Barker and brought together an ensemble of talented artists: Dora-nominated actor Julia Beaulieu, Canadian Comedy Award-winning comedians Cassie Cao, Ashley Comeau, and Karen Parker, actor and voice performer Tarah Consoli, award-winning actor Melissa D’Agostino, and Set and Costume Designer Vanessa Wishart.

The play is 90 percent scripted with the rest improvised, drawing inspiration from the clothes that audience members bring to the play, which are used as props. Boyer said the clothes help create a unique interaction between the audience and the actors using them.

“You can usually tell what area [the clothing the actors used] came from in the theatre and see people laughing, saying ‘that’s mine’ and then the actors in the show they would put the clothing on. So sometimes, one of the characters who are dressed [that way] for 45 minutes of the play, which is an odd experience,” Boyer said.

Clotheswap was all set for a Canada-wide tour beginning this summer, but challenges posed by COVID-19 meant the show, as the producers saw it, had to take a backseat.

“There’s no way we’d be asking people to bring clothing. There’s no way we’d be putting them on our actors and asking them to put on strangers’ things; obviously, you can’t put people in the theatre at the moment. A lot of the places we were hoping to put this on are considered red zone locations at this point. So, it became pretty clear that we weren’t going to be able to do the production as we saw it,” Boyer said.

Boyer and Barker were wrapped up in the challenge of making sure their cast got paid while continuing the show in some format. Their solution, transforming the show into a free reading and talkback discussing people’s relationship with clothing, something Boyer notes has dramatically changed for many in the wake of COVID-19.

“A year ago we were talking about bad fashion and [how] we shouldn’t be buying all this disposable clothing, what if we shared it recycled and up-cycled it and made these choices with it. And now we’re sitting in a situation where a lot of people, I know myself, for example, I’ve bought so little. And my relationship with clothing has changed in the last nine months. So, my opinions changed on it. And for us, we want to be able to continue that dialogue with the audience, allowing them to bring their thoughts and concerns up,” Boyer said.

The live reading took place on Nov. 27, online at 8 p.m. and was followed by a relaxed talkback session titled *Swapping in the Age of Covid*.

JIA CHEN



PHOTO COURTESY BRYAN CACCIATORE

Dale Boyer and Amanda Barker during the show.



PHOTO COURTESY LAUREN VANDENBROOK

Dale Boyer, a UW alumnus, Director, and Co-writer of the play.

Unmute: The Impact of a Pandemic on Gender-Based Violence

Abhiraj Lamba
Reporter

Since being confined within four walls, theatregoers have had fewer opportunities to go out and watch a great show. Lucky for us, those who write, produce, and perform for the stage are, at their very core, creative beings who need an outlet. Thanks to their creativity, we can now enjoy theatre on platforms like Zoom.

On the United Nations' International Day for the Elimination of Violence against Women (Nov. 25), I had the pleasure to see one such show, *Unmute: The Impact of a Pandemic on Gender-Based Violence*. Organized and produced by Canadian touring Theatre company, Theatre on The Beat, an organization founded by two UW grads, this piece brought to light a very important issue our society faces, and one amplified by the pandemic—domestic and gender-based violence.

This show was perfectly designed to be performed on Zoom, with all its scenes either showing characters video chatting with each other or doing some other work on their laptops, making a laptop camera the ideal medium to convey the story—people's creativity never disappoints.

Divided into two parts, the show was structured in an interesting manner completely new to me. During the first half of the show, as a standard product, the cast performed the complete play for the audience. The second half, however, got the audience involved. The cast performed parts of the scenes we had already seen, but this time the audience were encouraged to say "Stop" anytime they felt a character should have behaved differently. The person stopping a scene was then given the opportunity to take over that role and show the rest of the audience how they believed the scene should have gone.

Each of these scenes was followed by a brief discussion amongst the audience as to what was done differently and why that made a difference. The actors, in character, joined in these conversations. While doing this exercise, there were two characters we could not comment on: Dawn, the victim, since saying that she should have done anything differently would have essentially amounted to victim-blaming; and Scott, the abuser, since it was unrealistic that he would do anything differently. Including the audience in the narrative was immensely powerful because the roles examined were roles any of us could be playing.

Written by Cedric Martin, Lindsey Middleton, and UW grad Kimberlee Walker, this play had a simplistic script grounded

UNMUTE

THE IMPACT OF A PANDEMIC ON GENDER BASED VIOLENCE

WRITTEN BY CEDRIC MARTIN, LINDSEY MIDDLETON AND KIMBERLEE WALKER
DIRECTED BY ERIN BRANDENBURG

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in reality—one of its most notable features. When presenting a real-world problem like domestic violence, it is very important to keep things simple and realistic so that the audience can reflect on the issue and put themselves in the bystander's shoes. The principal purpose of this piece was not just to inform the audience of the issue, but also to help them better prepare themselves to respond to any gender-based violence they may be witness to.

The script was well-suited to the structure of the show, as it showed regular mistakes that people might make when dealing with domestic violence – keeping out of it because “it’s none of our business,” citing a behaviour pattern many people exhibit, especially when justifying not being able to pick up on canned behaviour patterns of the victim. Such mistakes were believable for the audience, but they also provided us with the chance to see what could have been done differently.

The show was brought to life by a phenomenal cast. Duncan Gibson-Lockhart played the part of Scott, the abusive husband. He brilliantly embodied the classic gaslighting abuser, who presents two vastly different personalities; one for the public and one for home. Everything from his speech, down to his facial expressions and body language sold the role. He was able to incite anger in the audience, so much so that I momentarily forgot he was simply playing a character.

Frances Loisselle appeared in two roles – as Dawn, Scott’s wife and victim, and Hailey, their daughter. Playing multiple roles in a play is a tough job, but Loisselle did them both justice. As the victim, her role was far more emotional than any other character. She did a fantastic job portraying the timid, scared personality this character needed. As the daughter, she had to act scared as well, but this was a different kind of scared and she showcased the contrast brilliantly.

Also playing two parts was Lindsey Middleton, who played Barb, Dawn’s friend, and Addi, Barb’s daughter and Hailey’s girlfriend. Both of her characters were vastly dissimilar, yet she was able to give amazing performances in both roles.

Spectacular performances were also given by Calvin Petersen and Yusuf Zine, who played the parts of Jay, Barb’s husband and Scott’s friend, and Ryan, Scott’s friend and Dawn’s boss, respectively.

From seeing what theatre on Zoom looks like, to getting a chance to be involved in the play as a member of the audience, this experience was certainly a memorable one. Of course, it was also an interesting and informative show and I would certainly recommend anyone who can to check it out.

sports & health



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The danger of grocery-store alcohol

Tara De Boer
Reporter

It's Thursday evening and you're sporting your comfiest sweatpants and a face mask sewn by your grandmother as you stroll through the aisles of your local grocery store. Before joining the check-out line, you notice the fully stocked alcohol aisle and think to yourself, 'I might as well save myself the extra errand of going to the LCBO.' You proceed to grab

two bottles of your favorite wine and a case of beer, toss them in your cart, and head for the check-out. Sound familiar?

The 2015 policy change in Ontario, that allowed for alcohol to be sold in grocery stores, has surely saved many people from frequent trips to the liquor store, in addition to their already tedious grocery store runs. But as a result, alcohol consumption has increased. Can too much of a good thing be a bad thing? For teens, studies are saying yes.

A research study, done by UW's Department of Applied Health Sciences, discovered that the accessibility of grocery store alcohol has led some teens to go from abstaining to binge-drinking, multiple times per week.

The leader of the study, Mahmood Gohari, a postdoctoral fellow in the School of Public Health and Health Systems at UW, concluded that youth who originally did not drink were 75 per cent more likely to start consuming alcohol as a result of the accessi-

ble alcohol section in the grocery store.

"Luckily, we are not talking about a huge number of students – only 1 per cent. But this transition is still alarming," Gohari said.

The study took data from a survey of over 2,200 Grade 9 students over a four year longitudinal study of more than 65,000 youth. They compared data from the two years prior to the policy change, and the two years after. The results were concerning. Compared to teens who did not have access to gro-

cery-store alcohol and Albertans who've had access for years, the teens who had access to grocery store alcohol showed high-risk behaviors longer. Fortunately, the study shows that for 57 per cent of those who drank periodically throughout the month, the policy had no effect on their behaviour.

So next time you find yourself pursuing the alcohol aisle, tempted to try a new brand of wine, stop and ask yourself, 'have I started drinking more since the policy change?'

UW alumnus uses tech to help tackle mental health challenges

Dennis Li
Reporter

An unexpected path led UW engineering alumni Yuri Quintana from being a professor at Harvard Medical School to developing software to help teens take care of their own mental health during the pandemic.

Quintana acknowledges the benefits that technology offers society as a whole, but is also keenly aware of how it may affect impressionable young adults' lives in

negative ways. The Canadian Pediatric Society says that "high school students now spend more than 7.5 hours per day on various screens, with 20 per cent of high school-aged children logging five hours per day on social media alone."

Our current pandemic has only exacerbated this issue as limited social interactions only promote more screen time for teens. Quintana believes that current mental health apps are not designed to fit their roles.

"Many of them don't get used and part of it is that the style, the

content, and the way in which people connect to them haven't been designed in proper ways or evaluated in proper ways."

Quintana does have faith in technology's ability to do good for society. "When properly applied, it (technology) can certainly provide more access to services, to knowledge and support services and we're trying to help individuals as well as organizations use that technology in the best way possible."

Quintana intends on changing this by integrating applications

with existing models to adapt to society's needs, as he thinks that the mental healthcare system in place right now is especially fragmented.

A specific issue he evaluates is the scope of mental health applications through attributes of each application, such as target audience, age, specific mental illness, phase of recovery, and how it can link to existing mental health resources.

Lastly, he hopes that with the help of his application, the youth of today will be able to navigate

life with less stress and be happier without the chains of technology, so they can become the responsible autonomous adults of tomorrow.



HARSHITHA DAMODARAN

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Next scheduled post-mortem meeting:
 Virtual due to Covid-19

Next scheduled board of directors meeting:
 Virtual due to Covid-19

opinion

HAVE YOUR SAY

Submit your letter to the editor or your community editorial to editor@uwimprint.ca. Find more opinions at uwimprint.ca.

Working from home

Due to the ongoing COVID-19 pandemic, remote work has become the norm in many companies around the world. Some of these companies encourage and even prefer it, while others are bearing with it until they can return to in-person work. This is due, in a large part, to the mixed feelings employees have towards working from home.

Many employees believe that working from home is the best thing that has happened to them, since it allows for an immense amount of flexibility in terms of working hours and scheduling. This allows people to attend to other high-priority tasks that demand their time along with their work. Moreover, it allows people to focus more without being disturbed by colleagues, which is more common in shared work spaces.

For many, remote work also nullifies any commuting expenses as well as time spent travelling to work. Consequently, this can allow people to get more rest by sleeping longer, which facilitates improved health. Additionally, remote work this year is a good way to get accustomed to remote employment, since if the pandemic rages on for a prolonged period of time, remote working will be further etched into work culture. Some companies will also continue to work remotely when it is safe to return to in-person activities.

However, working from home comes with some undeniable drawbacks. For me, working from home has been difficult in several ways. For example, it is harder for me to wake up early in the morning without having anywhere to go. Knowing that I simply have to stay in my apartment to get to meetings and other responsibilities subconsciously makes me more dismissive and I find it more challenging to be punctual.

Moreover, it's difficult as a co-op student trying to learn as much as possible from the experience. It's usually difficult to engage in serious conversation with managers and other team members when we are not in the same place, which makes it harder to get answers to questions at times. Since the very foundations of many companies have been shaken by COVID-19, with financial losses and workforce impairment, senior-level employees are usually busy mitigating losses in any way possible, leaving us co-op interns with very little work, which might not always be meaningful.

There is also no clear distinction between leisure and work time. Some people feel like they are working around the clock since they have made their living space into a workplace, which harbors a very different

atmosphere compared to a home. Some might also face the problem of being distracted by other responsibilities at home, making it harder for them to focus on work.

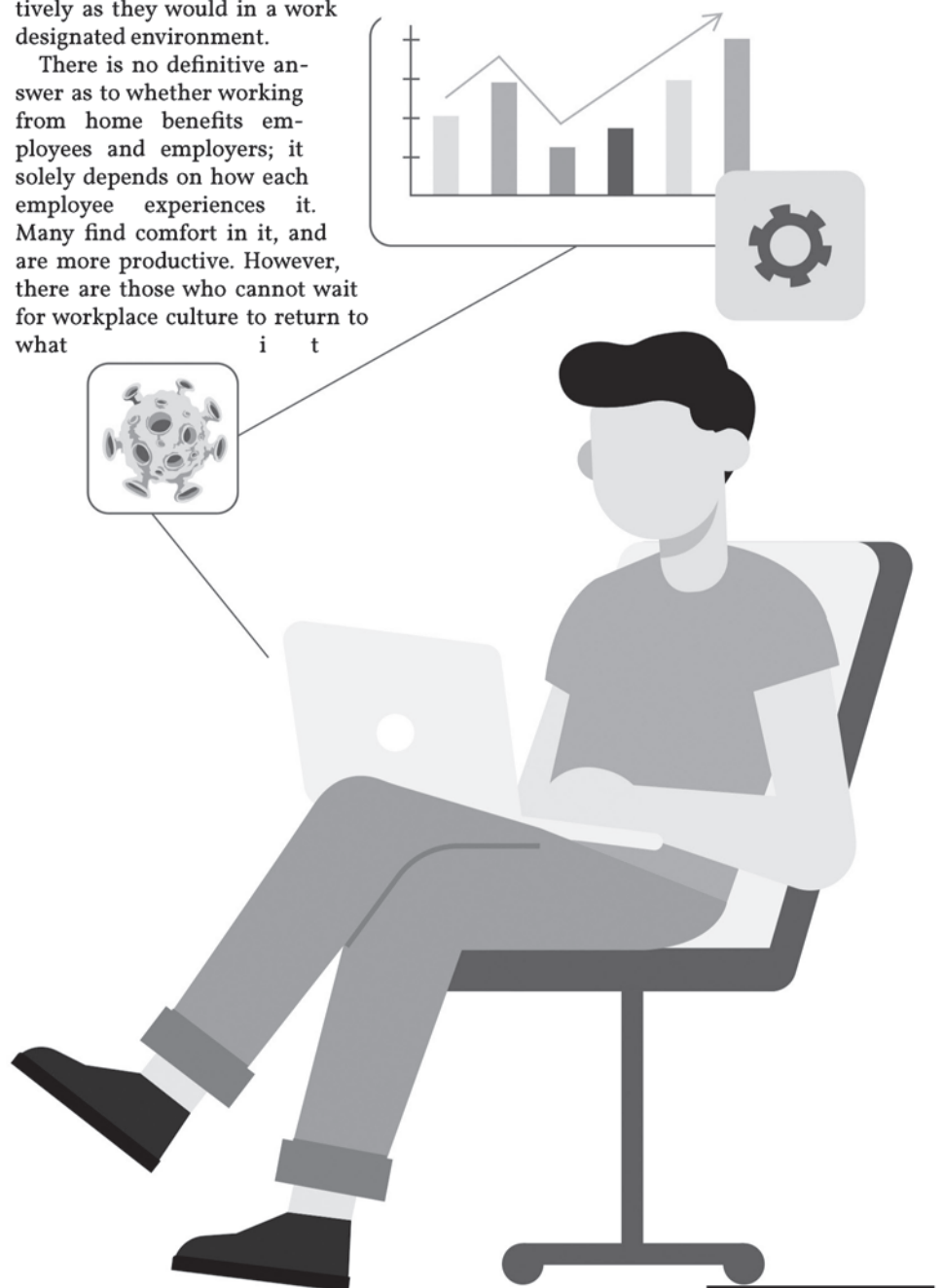
Communication with coworkers also becomes difficult, especially if there are new people one is interacting with, leading to a lapse in understanding. Facial expressions and vocal tones are essential in workplace communications to express true intent.

Many people also stay home and become unproductive due to the lack of a change in scenery - since they are stuck in one location both working and relaxing, their minds tend to slow down and not function as effectively as they would in a work designated environment.

There is no definitive answer as to whether working from home benefits employees and employers; it solely depends on how each employee experiences it. Many find comfort in it, and are more productive. However, there are those who cannot wait for workplace culture to return to what

was. It will, nevertheless, be very important for people to adapt to the new norm, since companies still expect the usual from employees and they must be in a position to deliver accordingly - now more than ever.

Rohit Kaushik
 3A, Computer Science



HARSHITA DAMODARAN



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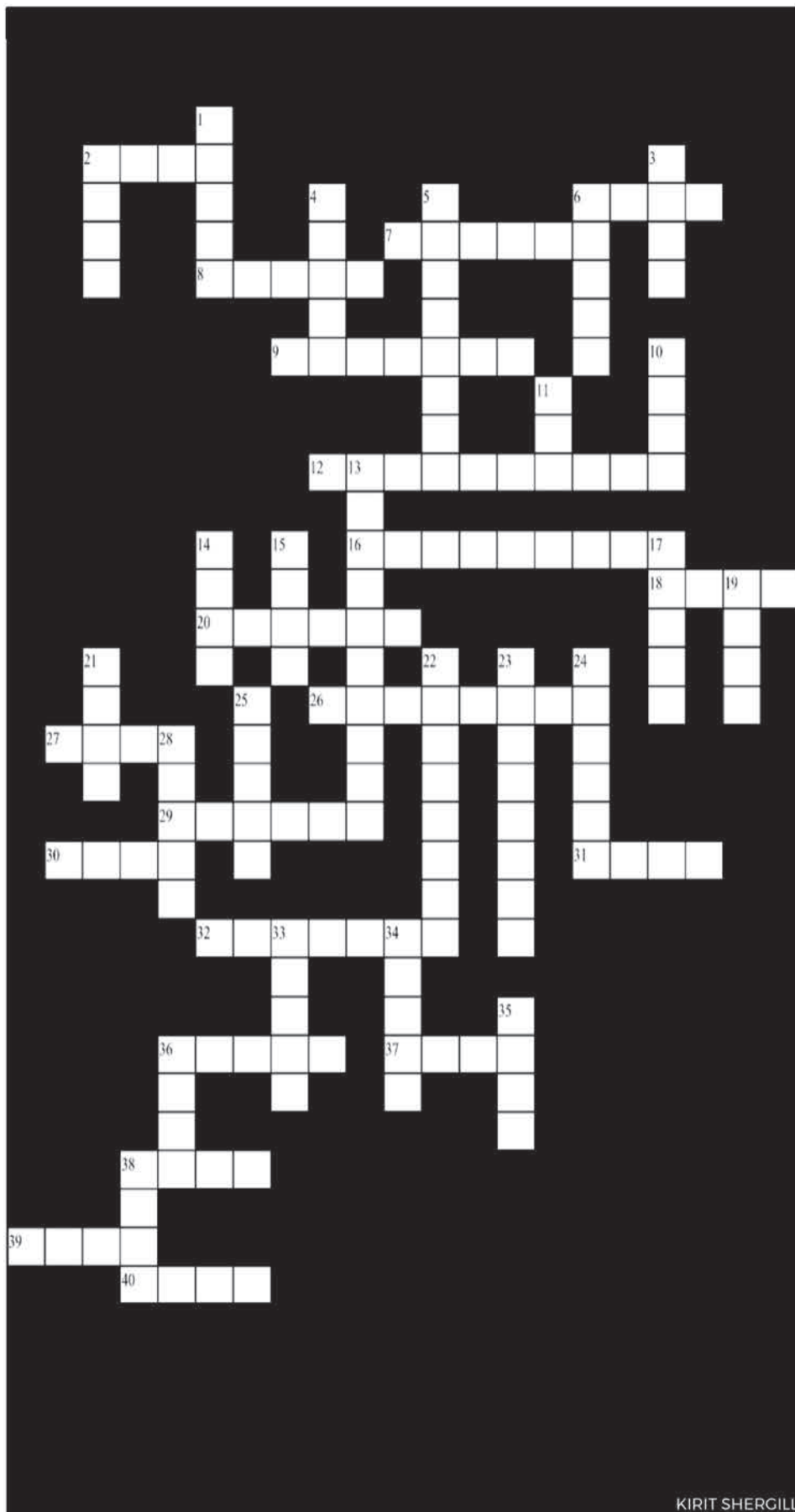
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2020 HAS A NEW CALENDER
JANUARY **LOCKDOWN**
FEBRUARY **DECEMBER**

Imprint Crosswords

Out in Space



KIRIT SHERGILL

Down

1. *Canine friend of Mickey Mouse
2. Canned fruit brand
3. Length of time
4. 'That's _____!' (song with Italian food in its lyrics)
5. Get the wrong reading of
6. Fountain drink 2nd choice
10. Kwik-E-____ (Springfield business)
11. Swiss peak
13. High-ranking foreign diplomat
14. Storm relief org.
15. Corona garnish
17. *Youngest Jetson
19. *The Earth's natural satellite
21. Filtered messages
22. *Caramel-filled candy bar (5,3)
23. First European to win the NBA MVP
24. Pocket square, e.g.
25. Some attachments
28. Quick-witted
33. Financial liabilities
34. Taxi calculator
35. Stand-up comic Mulaney

36. Dog biter
38. 'stick around'

Across

2. Word after sun or speed
6. Nickname for Hemingway
7. E-book reader
8. *Hunter visible at night?
9. *The sea king of the planet
12. Route taken by an itchy-bitsy spider (
16. *Dark and inescapable (5,4)
18. Stretches at a wedding?
20. Midmorning drink
26. One of Canada's Prairie Provinces
27. *Pop/rock phenom Bruno
29. Fisherman
30. *It shines atop a Christmas tree
31. Vogue rival
32. Cold War military force (3,4)
36. They're all true
37. Canadian gas
38. Pageant band
39. Taiwanese bubble tea
40. Rec. centre for females



BRIANA OENPUTERA