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THE DARK FIGURE, CAPTURED

By S'phindile Mhlongo

On campus residence students continue to be at risk. Since the start of the second semester, residents of Sol Plaatje, L Block, reported a 'scary individual', regularly seen donning a black ensemble – together with hat and mask. This man has apparently been utilizing the showers in the women's restrooms and leaving R5 coins, leading to Room C. The female students in this room are afraid, wondering why the stranger has chosen this door. Students on the first floor who are affected by this, are irate; fearful and worried about their safety in and around their rooms.

This crisis has raised a call to both the residence manager and the Nelson Mandela University (NMU) Police Services, to investigate this man and ensure the students' safety.

As soon as the threat dissipated, the police department and housing administration

addressed the issue during the first week of September. When he emerged from the shower, the suspect was discovered on the first floor, Apartment 7. He was unable to speak and refused to reveal his identity or answer any questions. When asked about his usage of the womens showers, he replied with "I don't have a place to stay and I'm not enrolled for both residence and academics,".

He further refused to respond to why he only used female bathrooms, why he left R5 for Room C, and how he gained access to the residence as only students with valid cards are allowed entry. Due to his inability to respond, he is led to attend a disciplinary hearing to explain his actions to the university.

This was truly a bone chilling story, and we hope that stricter safety measures are implemented to prevent situations of a similar nature.

MADIBAZNews

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LETTER FROM THE EDITOR

And so we reach the end of a beautiful journey together – for now.

We have reached our final edition for 2022, and sadly, have to bid all of our loyal readers farewell. But fret not, we will be back next year, with renewed energy and news for everyone – for the students, by the students!

With October being both National Mental Health Awareness Month, and National Breast Cancer Awareness Month, we would like to encourage everyone to look after themselves, by listening to their minds and bodies, and resting when they are put into overdrive.

With the upcoming exam and extended assessments period looming, we wish all students well with their final stretch. This is exactly what you have worked so hard for all year long, you can do this!

Back to this being the final edition, we are very grateful to have run from January up until now, with our loyal readers always ready to download our editions and read our blog. We are thankful for the love and support and promise that we will return even bigger and better next year.

Being handed the reins of a great expectation was overwhelming at first, but looking back at this year, I am very proud of our editors and journalists, who spent a lot of their personal time putting the edition together. Without them, there is no MadibazNews, so thank you very much to each and every member of the team for going above and beyond for everyone.

With this, I conclude my final Letter from the Editor for 2022. It has been a wonderful year, and I trust that only good things will be bestowed upon everyone as we near the end of the year.

Do look after yourselves and stay safe this December as you enjoy your well-earned break. You deserve it!

Leigh Nakeetah Jason



Photo: MadibazYouthLab

TRAUMA BONDING: THE UNTIMELY DOWNFALL OF STUDENTS

By Samantha van Jaarsveld

It is not at all shocking when acknowledging the harsh reality that South Africa has faced for years – the undeniable surge in the rate of domestic violence, most specifically targeted at women. Our nation has one of the highest rates of domestic abuse in the world, with one in five South African women experiencing intimate partner violence. We can all agree that this kind of abuse is harmful to anybody subjected to it, but tragically, most people have yet to recognize the harm that may result from verbal, emotional, and mental abuse.

Studies have shown that an astronomical 56.5% of Eastern Cape students are prone to experiencing some form of verbal or mental abuse. This number comes as a revelation to many, as the question of why this is condoned and tolerated by such a large percentage of students is raised. The answer becomes simple when you realise the multiple young ages of students that start to become involved in and continue serious relationships with toxic and unhealthy individuals.

According to surveys, young female students between the ages of 15 and 24 are most likely to be actively involved in relationships that are verbally and psychologically abusive. These students are entirely blind to the warning signs of the person they fall in love with and get emotionally connected to because they pursue these relationships at such a young and emotionally immature age. This makes things worse since victims only become aware of the abuse as it continues and when they have put a lot of time and energy into it. Some students just aren't aware that they are being mistreated because they haven't been taught or given the proper concept of what abuse is.

This is how trauma bonds which is the gradual development of an unhealthy dependency on an abusive partner - eventually occur. These trauma bonds can develop at crucial moments in life, such as that of a student's university years and may drastically cause their focus to shift from work unto their abusive partner. Hence, it is important to be educated on this serious issue.



YOUTH IMPACTING THE DIGITAL ECONOMY

By Somila Tiwani

According to projections from the World Economic Forum, there will be 1 billion young people living in Africa by 2050. 20.6 million young people, or around 35.7% of the population, live in South Africa alone at the moment. South African youth are actively engaged in society and the digital revolution through their usage of internet, apps, and social media for online shopping. When it comes to cultural goods and services, they are creating enormous value for brands, enterprises, and even themselves.

Highlighted are some of the incredible South African youths that are making a significant contribution to society and the digital economy:

1. Rabia Ghoor – Switch Beauty is an online cosmetics and skin care company Rabia established. Years later, she was recognized as one of the top businesswomen in Forbes Magazine, and has grown Switch Beauty into a company with a million rands in revenue. Using social media extensively, she has amassed a fan base of more than 100,000 enthusiasts of beauty.

2. Theo Baloyi – Theo established Bathu Shoes since he recognised the demand for an African-centric local sneaker brand. When their Bathu website was established in 2016, it crashed due to heavy traffic. Orders skyrocketed and Bathu Shoes had been the centre of attention as a result of excellent marketing and a genuine message. Peach Payments is Bathu Shoes' current online partner and is thrilled to witness the exceptional brand expand to 25 retail stores all over the country and an ever-growing online following.

If people start using technology significantly differently, the digital economy could be able to assist South Africa's economy in recovering. In order to do this, the youth can be taught and upskilled. Since there is a substantial inequality gap in the nation, the entire digital economy must increase general wealth. Technology is the future, it is the key, we just have to find the lock.

THE WINDS OF CHANGE

By Lindokuhle Frank

Nelson Mandela University (NMU) welcomes the newly elected Student Representative Council (SRC) led by the Democratic Alliance Students' Organization (DASO) following their victory at the universities Virtual elections held on 28 and 29 September 2022.

Khwezi Mathambeka will be taking over reigns from Pontsho Hlongwane as the newly elected NMU SRC President. DASO took victory by securing 4 seats on the universities central SRC executive and being premiers of four campuses, namely, North, South, 2nd Avenue and Missionvale Campus.

The South African Students' Congress (SASCO) and Economic Freedom Fighters Student Command (EFFsc) - two competing student organizations, received three and two seats on the central SRC Executive, respectively, while SASCO continues to hold the top spot at George Campus without any challengers.

The SRC is the highest decision-making structure of student governance. Its main goal is to represent the overall interests and well-being of students. This position involves making policies and co-operative decision-making on campus, ensuring that students get the best of university life.

Students have voiced a variety of concerns over the last year about the university's failure to provide them with a range of services, including those related to resident accreditation, shuttle service, debt relief, and campus safety. DASO promised to be the group that will bring about change to the institution with a manifesto that provided students optimism in obtaining an improved version of the present services both on and off campus.

The newly elected SRC will take over reigns from the current EFFSC led SRC in 2023 and will be

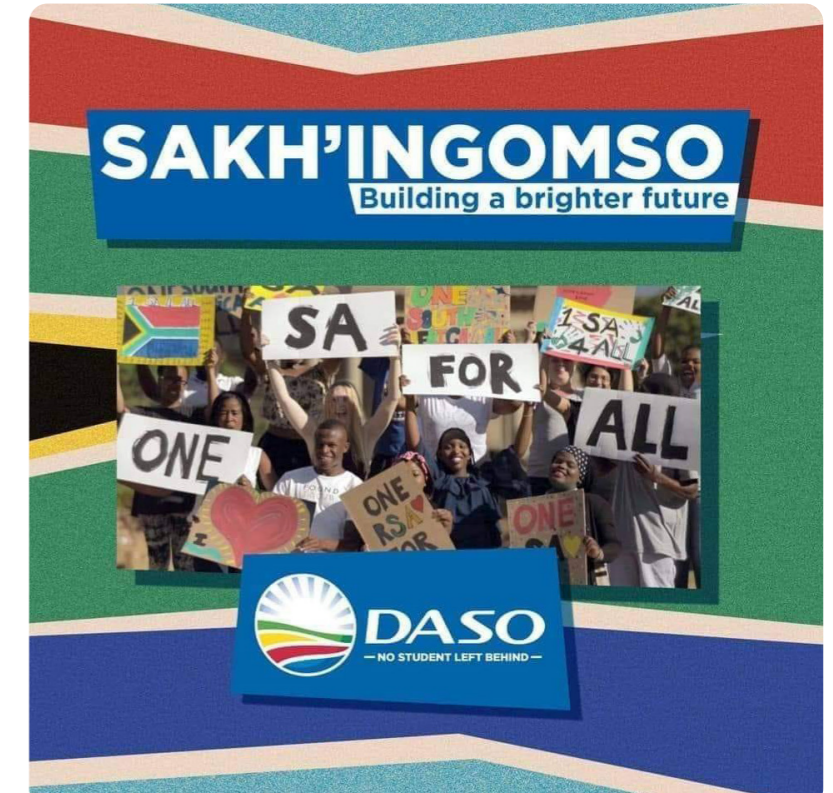


Photo: DASO facebook page

MIND YOUR LANGUAGE!

By Akahlulwa Radana

Most South African youth lack the ability to read or write in their native languages. They sometimes even forget how to speak their own language due to the impact English has had on them, and their personal decision to adopt English as their first language.

It is important that one be able to speak their native tongue. If one is unable to speak, or forgets their mother tongue, the connection to their family members, culture, identity and history is eradicated.

Your identity is shaped through your ability to speak your native language, which connects you to your culture. You will find that those who lack knowledge of their history, language and culture become self-loathing. They enter adulthood with an identity crisis. Speaking from experience, I have gotten so used to English that despite being ethnically Xhosa, I do not have the command over the language that I have with English. I cannot express myself in the way that I would like to. I am self-conscious when I have to speak with my peers who can speak Xhosa well, and at times I've been ridiculed told that I carried myself like a white person. I bet that sounds familiar to some of us? While unpleasant to experience, there are solutions to this problem.

Firstly reserve the use of English for school or work. When you are at home try to spend majority of your time communicating with your family in your mother tongue. Secondly, surround yourself with people who will not laugh at your mistakes nor taunt you for struggling to speak your native language but will rather help with rectifying your pronunciation. Lastly, acquaint yourself with books that are written in your language, you will expand your vocabulary in this manner.



Photo: www.pexels.com

One's mother tongue is essential as it connects them to their roots, a crucial part of identity. So it is vital for native languages not to be cast aside in favour of English.

CHECK YOURSELF!

By Leigh Nakeetah Jason

With October being National Breast Cancer Awareness Month, it is vital that we do our annual check in. With 1.7 million women being diagnosed every year, breast cancer is the most common cancer among women, worldwide. Typically, breast cancer begins when cells in the breast begin to grow abnormally, and sometimes have the potential to grow out of control and invade the surrounding tissue of the previously healthy breast – when this happens, it is known as invasive breast cancer.

Although there are many theories regarding why certain people get breast cancer – like women who start menstruating early being more at risk – there is no guarantee on who the disease chooses. Therefore, we look out for ourselves and our fellow man, taking the necessary steps and doing our annual mammograms and checks. The most common test we undertake is the self-check.

Self-checks are easy to undertake, and should occur every month on the same day, typically three to five days after the start of menstruation.

- Lay on your back. Place your right hand behind your head. With the middle fingers of your left hand, firmly

HOW TO DO A BREAST SELF EXAM

1. Look at your breasts in the mirror, your shoulders straight and arms on your hips. Look for distortions, puckering of skin, sore or inverted nipple.
2. Raise your arms and look for the same changes
3. Look for any signs of fluid coming out of the nipples. While lying down, use your right hand to feel your left breast and then vice versa. Use a circular motion, firm touch and feel for any lumps.
4. Finally, feel your breasts while you are standing or sitting. Cover your entire breast, using the same hand movements described in step 3

Breast self-exam is a convenient, inexpensive tool that you can use on a regular basis and at any age. It is recommended that all women routinely perform breast self-exams as part of their overall breast cancer screening strategy

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Photo:EMS_Kenya, Twitter Official

press down but gently, as not to bruise, using small motions to examine the entire right breast.

- Sit or stand. Feel on your armpit, as breast tissue goes into that area.
- Gently squeeze your nipple, and check for discharge.
- Repeat this process on your left breast.
- Stand in front of the mirror.
- Look at your breasts directly in the mirror and note for changes in skin texture like puckering, indentations, dimpling or skin that looks similar to an orange peel.
- Take note of the shape and outline of your breasts.
- Check to see if your nipple turns inward.
- Do the same process with your arms raised above your head.

By doing this monthly, you become knowledgeable about how your breasts are supposed to feel, and will notice easily if there is any type of change. Besides performing this, it is still recommended that one goes for a mammogram annually.

Do your part. Check yourself and encourage others to check as well – we could be saving lives.



Photo: Siyabonga Dlamini

THE CHRONICLES OF THE AFTERMATH

By Lelodwa Ngamlana

Paradise is the endgame, but the journey matters more – the qualification is the goal, but the process matters most. This includes the good habits, learned skills, experience and self-discipline.

What good is the physical paper, if you still cannot master a few interview questions, or even still not understanding the importance of showing up?

There should be a significant difference on your resume from the first year until now, reflecting your acquired skills and experience. It has been posted so often on social media platforms that students do not plan on securing their future through their undergraduate qualification. Some are more focused on making fun, reckless memories that won't even matter one day.

It is even evident with some of our peers who have recently graduated and remain at home, that sometimes it is because they forgot the importance of the process during university. They could either not have any working or volunteerism experience, as they never availed time to take a short course to assist with their chances of securing a job after graduation, and ended up with an empty Curriculum Vitae.

Volunteering can be done in certain formal companies. Zuha Salman from 'Curious Desire' published an article on why experience is important. She highlighted that, amongst other things, experience makes you more marketable. As much as employers want the relevant qualifications, they also want to see if you can handle the other more menial things that may pose a challenge in the working environment – through your resume. Let this be a wake-up call.

The unemployment rate is high, but there are always ways to assist others and have it documented.



Photo: www.pexels.com

UMPHAKO FOR HOME

By Lelodwa Ngamlana

The word 'umphako' means 'food for the road', whether the road leads home or somewhere else. We arrive home with a few snacks or other foods and share it with those who await us.

Colossal misinformation has been given to those in high school and other lower grades. That misinformation can be spread from social media or university students to their younger siblings. That misinformation surrounds the topic of university – either that it is fun because there is freedom, or there aren't many rules at residences, and so forth.

As much as we are all in different faculties and residences, this is obviously not entirely true. Academics are difficult, and residences do not allow loud music playing until the early hours of the morning. This misinformation plants seeds in the heads of those who come to university and end up slouching due to the downside that nobody ever talks about. This ultimately, leads to failure.

As a mentor at my own residence, my mentees and I had a conversation and they howled madly when I had asked them if their university experience had turned out exactly how they wanted it to. Apparently, not surprisingly, nobody had mentioned the many responsibilities a student carries, some even expressed their wish to return and fix certain things in the past.

Personally, I was made to fear university. Everyone around me had told me about the not so bright stuff, so when it was my turn to enter and play the game, my guard was naturally up.

Umphako for Home is that when university closes, tell everyone the truth. Tell your little siblings or peers attending, the truth! Drop their expectations and as much as you'll let them know about the good times – make sure to be realistic about the bad ones. Tell them about the importance of financial education and how you had to learn the hard way.



Photo: www.pexels.com

STUDY SMARTER NOT HARDER

By Laiken Faiers

Studying is something we have been doing for years – most of our lives actually, often in the same manner in which we were taught as children. Yet, this may not be the most effective way of consuming new information. Everyone’s brain works differently, so it naturally follows that everyone’s study method won’t look the same. Below are a few examples of study techniques proven to work best.

#1 Take breaks

It might seem hypocritical to start with this, but it is endorsed by science. Often one’s study routine consists of extended periods of sitting at a desk. With breaks being viewed as an indulgence. However, an ideal routine would be to intensely study for 30 minutes and then take a 10-minute break before starting this cycle over. By doing this you give your brain just enough time to recharge and refocus.

#2 Active recall

Active recall is a study method which has gained a lot of attention. It essentially flips the traditional method of studying on its head. It has also been shown to be a more effective way of learning anything quickly. It refers to actively stimulating your memory for a piece of information rather than just stuffing it with information. In other words, it is retrieval practice. An example of active recall would be the use of flash cards. The question on the card prompts you to answer. When you can answer the question before checking that is active recall. Another example would be doing mock exams.

#3 Memorisation techniques

Make studying simpler and more fun through memorisation techniques such as mnemonics or associating new information content with something you already know and understand. The brain is better able to recall information when there are connections and patterns associated with it.

#4 Adjustments

Often, we stick to what we know best – even if it might not be working. In most cases, it isn’t your fault for not learning the material but rather it is your study methods. Don’t be afraid to change. Learn what works best for you to help reduce the stress of studying.



Photo: www.pexels.com

THREE WAYS TO IMPROVE MENTAL HEALTH

By Laiken Faiers

Mental health refers to one’s emotional, psychological and social-well-being, so essentially, it is how one thinks, feels and acts. It is an aspect of one’s health that is often overlooked. How can we change this?

#1 Diet and Exercise

When it comes to the body everything is connected. Often we view our health from a segmented perspective. We do not understand that our physical, psychological, emotional, and social well-being are all intrinsically connected. In fact, research shows that your gut health impacts your mental health. This is why viewing your health more holistically is vital. So no, drinking more water and exercising won’t cure your depression but it is a tool which can be used to help improve mental wellbeing.

#2 Journaling

Journalling is yet another tool which can help you manage your mental health. It has the benefits of reducing stress and anxiety, helping you prioritise your problems as well as providing you with a space for positive self-talk. Journalling can help you identify negative thoughts or behaviours to help stimulate change. It might seem simple but that is the beauty of it.

#3 Therapy

We still live in a society that stigmatises mental illness. Talking about mental health or seeking help from a professional is not a form of attention seeking. You do not need to suffer in silence. Sadly, access to mental health care in South Africa is still seen as a luxury because of the cost associated with it. Thankfully, there is a cost effective alternative such as Emthonjeni Student Wellness. Emthonjeni Student Wellness is a team of registered psychologists who provide free counselling services to Nelson Mandela University students. If you are ever struggling be sure to check out their website (<https://emthonjeni.mandela.ac.za/>) and book a session.

To quote Fred Rogers: “Anything that’s human is mentionable, and anything that is mentionable can be more manageable. When we can talk about our feelings, they become less overwhelming, less upsetting, and less scary”. It is not selfish to take care of yourself or prioritise your wellbeing it is necessary.



Photo: ewn.co.za

BEAT THE BLACKOUT BLUES

By Robert Hill

South Africa has been affected by unprecedented levels of loadshedding in recent months, no doubt leading to much frustration due to inconvenience, for most of us. Especially with the end of year fast approaching, it is important to have a plan in place on how to get your work done when there is no electricity.

Seeing as loadshedding in the Nelson Mandela Bay Metro hits for a maximum of 2 hours at a time (as opposed to 4 by many other towns), this can often be overcome by doing work that can be done offline and away from a computer. If you have a laptop, by ensuring that it is fully charged and being able to access the internet through a mobile hotspot made possible by your phone and the monthly data instalments issued by the university. Most laptops should just about be able to manage the two hours of battery life, leading to very little lost productivity.

This does not solve all problems though. Many cell phone networks are slow and unreliable during loadshedding, especially away from built-up areas, as the backup batteries may be running low. Lighting is also an issue in the evenings, and cooking using electrical appliances is near impossible. All these factors lead to a very stressful time for students.

The trick here is to plan ahead – you may need to have supper a bit earlier (or later) and may even have to prepare food that can be eaten cold. You could also keep warm water in a flask to indulge in warm beverages, and also ensure that all batteries (torches, cell phones and laptops) are charged.

Knowing when the power is going to be off is also important: this information can be accessed on several handy apps – or off the municipal website at nelsonmandelabay.gov.za (george.gov.za for Saasveld Campus). This will enable you to make the most of time with electricity and plan your day around load shedding.

Seeing as load shedding will probably be with us for some time, getting into good routines now will be worth it in future.



Photo: medium.com

GO OFFLINE FOR A WHILE

By Robert Hill

Most of us barely remember a world where the internet wasn't readily accessible at all times. Nowadays, we are only five seconds away from accessing most of the world's information on our cell phones or other devices. And this is great – information is far more available than ever before, and many skills are available at the click of a mouse or flick of a wrist.

However, all of this convenience does come at a cost: we are hardly ever able to disconnect. There is a constant flow of social media, messages, news and information. This is not only a distraction from real life and work that needs to be done, but also very tiring. Humans need time to process our thoughts and feelings, and this is made a lot more difficult when we fill up all the 'gaps' in our day, like standing in a queue or waiting for the start of a lecture, with information.

Of course, it isn't a good idea to completely cut out access to the internet for an extended period, our modern lives rely on access to it too much. However, you can be mindful about disconnecting. For instance, you may decide on a lazy Sunday, to switch off your devices and have a picnic with some friends. If you have friends and family who are accustomed to you being available 24/7, you can always let them know that you won't be able to be reached for a few, so as not to let them worry.

By temporarily disconnecting, you are able to live more in the moment when you are out and about – there probably isn't too much need to post that Instagram story while you're at the beach, when it can wait until you get home.

Even if its only an hour of reading or enjoying a meal, there is a lot of value in finding time to let your mind 'breathe' and reduce the constant flow of digital information. Give it a try!

FROM DUSTY STREETS TO DESIGNER LABELS (LITERALLY)

By Bantu Ndiki

Bred in the infamous dusty streets of Dimbaza, Masimzukise Tase Jack emerges. Just like many others, he was raised by his grandmother with his siblings and cousins, and were all taught the same values – love and helping others. This helped shape him to the success he is today – a qualified fashion designer.

Growing up left many memories that struggle to fade. Jack grew up in an environment where boys would mock him due to him being more fond of playing with girls – but this didn't bother him.

"I was always not happy with the toys I used to receive, because I wanted dolls".

His passion for creativity began during those formative years when he started making his own dolls and designing clothes for them, but his big break, however, occurred, when he was handpicked from 200 designers in the Eastern Cape to be in the top four, to display their garments for the Buyel'khaya fashion programme. The programme was mentored by renowned South African designers who own respected brands in South Africa, and international designers Thula Sindi and David Tlale.

More doors opened when he was chosen as an intern for well-known designer, Gert Johan Coetzee, and since then, he has been sharing the stage with big names in the local industry, earning him enough recognition so that he could start designing and directing fashion in productions like Berita music videos and magazine shoots.



Photo: Masimzukise Tase Jack

One of his collections, 'Die Hard', was inspired by an experience that caused him to nearly take his own life. He does not only draw inspiration from experiences, but also through traveling and architecture – something he has now experienced a lot of. His career has opened many doors for him – extending as far as China where he studied clothing and manufacturing, and even to America, where he displayed some of his pieces at the Ritz Museum in Jacksonville.

Tase is a huge inspiration to local entrepreneurs, and is still helping his fellow man by working on a project to train young women in the discipline of fashion. We commend him.

BRINGING BACK SUMMER



Photo: www.nmbt.co.za

By Tsireledzo Musecho

After much anticipation, summer is finally here. Although there have been a few rainy and gloomy days in Gqeberha, the sun has made an appearance a few times. Here are some activities that one can enjoy during the warm season.

1. Beach day

Gqeberha is also known as 'The Bay'. With beautiful sandy beaches that surround the city, there is nothing more fun to do in the warm weather than to spend a sunny day by the beach. Whether it's a late afternoon stroll, enjoying the nice salty breeze or a full fun-filled day at the coast, a beach day is a must-have on your summer to do list.

2. Ice Cream dates

Nothing says summer more than an ice cream date. Whether it's with friends, a partner, or solo, an ice cream date is an enjoyable experience for everyone. With many ice cream spots in the city, one can't afford to miss this fun activity. Paired with a nice stroll in the cool breeze, it's an experience to not be missed.

3. Bungee Jumping

The Tsitsikamma National Park, 180 km away from Gqeberha, offers many fun-filled activities to do in the summer. For adrenaline junkies, these activities include bungee jumping, ziplining, hiking, wall climbing, kayaking and many more. However, if you would rather enjoy a nice restful activity, Tsitsikamma is known for its beautiful coastline and marine life.

4. Addo Elephant National park

For a more chilled experience, the Addo Elephant National Park is the place to be. With various wildlife, this national park offers an experience to remember. It is also situated just 65km outside of the city – less than an hour's drive.

5. Boardwalk Mall

After its much-anticipated opening, the new Boardwalk Mall has finally opened to the public. With new state of the art design, the mall offers a brand-new cinema, and fun filled stores where one can enjoy playing games, eating out, shopping or taking a stroll around the mall. Perfect if an air-conditioned mall is where you want to be!



Photo: www.pexels.com



Photo: www.pexels.com

HELP YOUR ENVIRONMENT!

By Hlengiwe Phiri

Alien species are introduced in South Africa due to various reasons - for industrial and commercial purposes, transported mistakenly, or for aesthetic purposes. If these species are not managed properly, they may become invasive and become a threat to our already fragile biodiversity, human livelihood, and economy.

Invasive alien species, refer to all living organisms that are not native to the area that they occupy, and these species cause significant harm to the area's biodiversity and may drive some indigenous species to extinction. Invasive alien species invade the land that indigenous species originate on, and they compete with them for natural resources such as water. Since these alien species do not have natural predators in the area, they often thrive and outcompete indigenous species leading to a decline in local biological diversity.

Spotting these species can be tricky as some have a strong resemblance to native species, but luckily the South African National Biodiversity Institute (SANBI) has made it easier to spot these exotic species. The Invasive alien plant alert series has images of the plants and descriptions, which makes it easier to spot invasive alien plants and to differentiate them from indigenous plants that have a similar appearance.

Upon spotting them, SANBI encourages people to report the sightings of invasive alien species by sending a detailed email to invasivespecies@sanbi.org.za, by doing so you are contributing in clearing South Africa of invasive alien species and protecting our biodiversity. For more information on invasive alien species visit SANBI's website and stay informed.

WHERE THE FUTURE LIVES

By Lesego Maluleke

People of all ages are invited to the Museum of the Future to view, interact with, and influence our shared future. Explore potential possibilities and return to the present with wisdom and compassion.

The Museum of the Future is a venue for the display of cutting-edge and future ideas, practices, and goods. The Museum of the Future, situated in Dubai, United Arab Emirates, feature three primary components: a green hill, a building, and a fence. The museum's attractions are split into five sections. The first chapter, called OSS Hope, is located on the fifth floor and transports you to space. The second chapter, the Heal Institute, is located on the fourth floor and allows you to take in the splendour of the Amazon Forest, while the third chapter, Al Waha, on the third floor, encourages deeper mental and physical integration. Children, who are seen as the future's heroes, are given special access to the museum's last section.

According to the Museum of the Future, in addition to hosting inventions and serving as a hub that gathers researchers, designers, innovators, and financiers under one roof, it aspires to foster solutions to the problems that future cities will confront. The Dubai Future Foundation established it. Despite being scheduled to do so in 2021, it hadn't fully opened as of December of that year. On February 22, 2022, the government of the United Arab Emirates officially inaugurated the museum. The 22nd of February 2022 is a palindrome date, hence that was the official date chosen.

This is definitely on our to-do/visit list!

CAN A ROCKET MOVE WITH NO ATMOSPHERE?

By Akahlulwa Radana

Gravity – a powerful concept. It allows us the means to move out bodies in a specific direction. If we are moving in the wrong direction, we respond by changing our motion, for fear we may run into something. When an airplane changes course, the air around it is pushed, however, a rocket – when encircled by an infinite void, must push on something else.

For us to fully grasp the way a rocket moves in space, we need to have a look at the first and third of the Newtonian Laws of motion. The first law of motion states that a body will not change its state of rest or motion along a straight line until a force acts upon it. How does this law affect a rocket?

Unlike an airplane, a rocket will not encounter any drag in space, so as a result of the first law of motion, the rocket will cruise along the same course it was on, while the engines are functioning, even if they are turned off. That is, unless it is struck by an outside item that would exert the force that the law refers to.

The third law of motion says that every action has a corresponding and opposing reaction. A rocket will utilize fuel that produces high-pressure gas in order to propel themselves. The force exerted by the exhaust gas has an equal and opposite reaction, and because of this, the rocket is propelled forward as the exhaust gases flow away from the rocket body. Therefore, the propellers to the right of the spacecraft need to be lit, should the spacecraft need to turn left.



Photo: www.pexels.com

How does rocket fuel work without oxygen? In order to ignite the fuel, rockets also carry oxygen on their space journeys.

And there we have it! How a rocket moves in space. I suppose those years spent in Physics class were not for nothing, hey?



Photo: www.pexels.com

WHAT'S LEFT TO SOLVE?

By Derick Hill

Considering the powerful computers and intellectual superstars that exist today, it is almost hard to imagine that there is anything left for mathematicians to solve. The truth is, there still exists mathematical problems that are so difficult to solve that a solution will make the solver a millionaire. This incentive is obviously a great motivator for researchers, so how close are they to that sweet money?

The Millennium Prize Problems are a selection of complex mathematical problems chosen by the Clay Mathematics Institute (CMI) in 2000. The CMI is a non-profit foundation based in Denver, Colorado in the USA that is dedicated to increasing and spreading mathematical knowledge and they have pledged to pay one million dollars to whoever solves each of their Millennium Prize Problems.

To date, only one of these problems have been solved. This problem is, the Poincaré Conjecture, 'a theorem about the characterisation of the 3-sphere, which is the hypersphere that bounds the unit ball in four-dimensional space.' The complexity of the preceding statement may give an indication as to why so few of these problems have been solved – they are very complex! Grigori Perelman solved this in 2010, but he declined the prize money as the CMI did not offer the same reward to the mathematician whose theorems laid the groundwork to solve this problem.

The most famous Millennium Problem, the Riemann Hypothesis, involves trying to find a pattern for the distribution of prime numbers. Mathematician Paul Nelson has recently solved a problem that is closely related to the Riemann Hypothesis and as such mathematicians are once again hopeful that the 150 year old problem can be solved.

In a world where it often feels as if everything that is to be discovered has already been discovered by someone else, it is exciting to realise that science is still incomplete and waiting for one of us to make our marks – and possibly win a massive pay check along the way!



SEEING THE FUTURE

By Phuthego Precious Nthoke

Macular degeneration is an eye disease causing vision loss within the centre of one's field of vision. It does not cause total blindness, but does degenerate one's eyesight to an uncomfortable, non-functional extent, as people who suffer from it, often fail to recognize ordinary, everyday objects. It has been estimated that around 8.7% of the world's population, roughly 198 million people, suffer from age-related Macular degeneration in 2020, and that number is expected to rise to about 288 million by 2040. To date, there is no concrete cure, but treatments like laser eye surgery, is available to lessen the effects.

With promising research undertakings, new developments have come forth that seem to be useful for treating certain types of blindness. Retail implants, created by Daniel Palanker – a PhD researcher at Standord – and his collaborators, has helped many people who have lost their sight due to age-related macular degermation, and helped them regain standard vision.

Neurologist, Chichilnisky, has high hopes that the 2mm implant will be beneficial to patients with Retinitis Pigmentosa, Macular Degeneration and other sight limiting genetic disorders. Recently, a field test on the implant was conducted with the help of 5 test subjects, the results concluding that while one patient's chip was inserted incorrectly, the remaining patients reported seeing the images that were projected onto the implant, indicating use of their peripheral vision. Due to the promising results, the next step is to work on smaller pixels to allow the patients to have better visual acuity.

Another institute, Institut de la vision, reached a milestone recently when they launched a project 'Entrain Vision', coordinated and directed by Serge Picaud, who developed an electronic device that uses electric stimuli on the nerves within the eye. A microneedle was implanted into the visual cortex of a blind woman, consequently enabling her to see simple letters, shapes and lines. This was considered a huge milestone within the developmental treatment of blindness.

The results of such experiments bring hope and more reasons to keep funding such institutions. Most researchers are hopeful that a cure will be found soon.



AIR POLLUTION, A HIGHER THREAT WITHIN NON-SMOKERS

By Zoleka Makhathini

Scientists have discovered a novel mechanism trough which very small airborne pollution particles might result in lung cancer, in individual who have never smoked. With this discovery, novel lung cancer therapies or even preventative measures may be devised. The particles are generally found in vehicle exhaust fumes and smoke from fossil fuels, and are linked to an increased risk of cell lung cancer in non-smokers.

According to research conducted by the scientists from the Francis Crick Institute and University College London, the mutations that causes the illness, stem from a gene known as Epidermal Growth Factor Receptor (EGFR). Nearly half of lung cancer patients who have never smoked, possess these mutations.

"Air pollution increases the risk of lung cancer slightly less than smoking does, however, we cannot control what we all breathe" said Charles Swanton, the Francis Crick Institute and Cancer Research UK Chief Clinician.

He added that these new data sets reveal how important it is to address climate change if they are to improve human health as more

people worldwide are exposed to harmful levels of toxic chemicals created by air pollution. A lab study conducted by the researchers, revealed that the same pollution particles triggered fast alterations in EGFR-mutated airway cells.

In addition, a gene 'Ki-ras2 Kirsten rat Sarcoma Viral Oncogene homolog' (KRAS) was found to be associated with lung cancer. It was discovered that air pollution increases the influx of macrophages, the blood cells that eliminate dead cells and fight microorganisms. This causes the cells with EGFR mutations to multiply in response to particle exposure. This Interleukin-1 β inhabitation prevented the development of lung cancer.

During testing, the team performed ultradeep mutational analysis on tiny samples of normal lung tissue, and discovered EGFR and KRAS mutations in 18% and 30% respectively, of normal lung tissues.

These findings were extremely beneficial as they discovered the driver of the mutation of these genes, are frequently found in lung cancers but also normal lung tissue, and are a likely result of aging, and that these mutations alone only weakly potentiated cancer in laboratory models.

MUMMY MAYHEM

By Phuthego Precious Nthoke

Mummification was a practice put into place by the Egyptians throughout history, one that took more or less 70 days and included extensive prayers and rituals. Modern scientists, ancient writers and historians have stated that studying the mummies helps them to better understand the old Egyptian culture, and the process in itself. The recent discovery of 250 sarcophagi at the Saqqara necropolis burial ground near Cairo in Egypt, has sparked controversy amongst people.

The sarcophagi were dated to be older than 2500 years, and were found to be amongst 150 bronze statues and mummified animals, deemed to be sacred. A 9-metre long papyrus roll was also found, and it is believed that the roll is from the 'Book of the Dead'. Surrounding the controversy, people have noted some events that arose when King Tut's tomb was discovered, and highlighted the morality of disturbing the dead and diseases this may bring forth. Like 'King Tut's Curse', which is widely known to support their notion that digging up the sarcophagi is dangerous. There is also a possibility of mould, toxins and bacteria being released when they open the sarcophagus, putting archaeologists at risk of lung infections.

Historically, mummies were found to be carrying mould, *Aspergillus Niger*, and *Aspergillus flavus*, which could make someone with a weak immune system, very sick. Protective measures have been put into place to protect archaeologists. However, despite all the objections and deadly theories, the



Photo: www.pexels.com

archaeological sites and tombs have been deemed safe.

What do you think? Would you risk being cursed by ancient Pharaohs, release a plague on this Earth or be hospitalized due to an asthma attack, all for the sake of science?

SAVE TIME, USE TECHNOLOGY

By Amahle Phendu

From their early stages, people have known that they have to work in order to survive. To make things easier, technology was developed and is still growing. Today, it overshadows every field, dominates the world, and plays a vital role in saving time. Everyday, the internet gains more and more attraction.

Learning through several resources, has been made possible by the internet, and to top it all off – it is unlimited. This saves a lot of time, making books, articles, libraries and all other informational sources, accessible all the time. This, improves productivity and helps us find information easily and faster. Finding information is one thing, but technology helps us to verify this information, to make sensible contributions to our knowledge.

Technology is very advanced – awarding us the freedom to be available anywhere, and at any time to attend to our responsibilities. It gives us the comfort of conducting classes without moving to a lecture hall, additionally saving us time and money. Online classes have been frowned upon for a while, but when one considers distance travelled and money spent, we see it in a more positive light.

As the youth, it is up to us to allow certain technologies into our spaces. Everyday we move deeper into a technological era, and instead of fearing the changing times, we start to embrace it and its associating benefits. Technology has brought us far in terms of finances and efficiency, it will take us much further as it evolves and makes things even faster and easier.

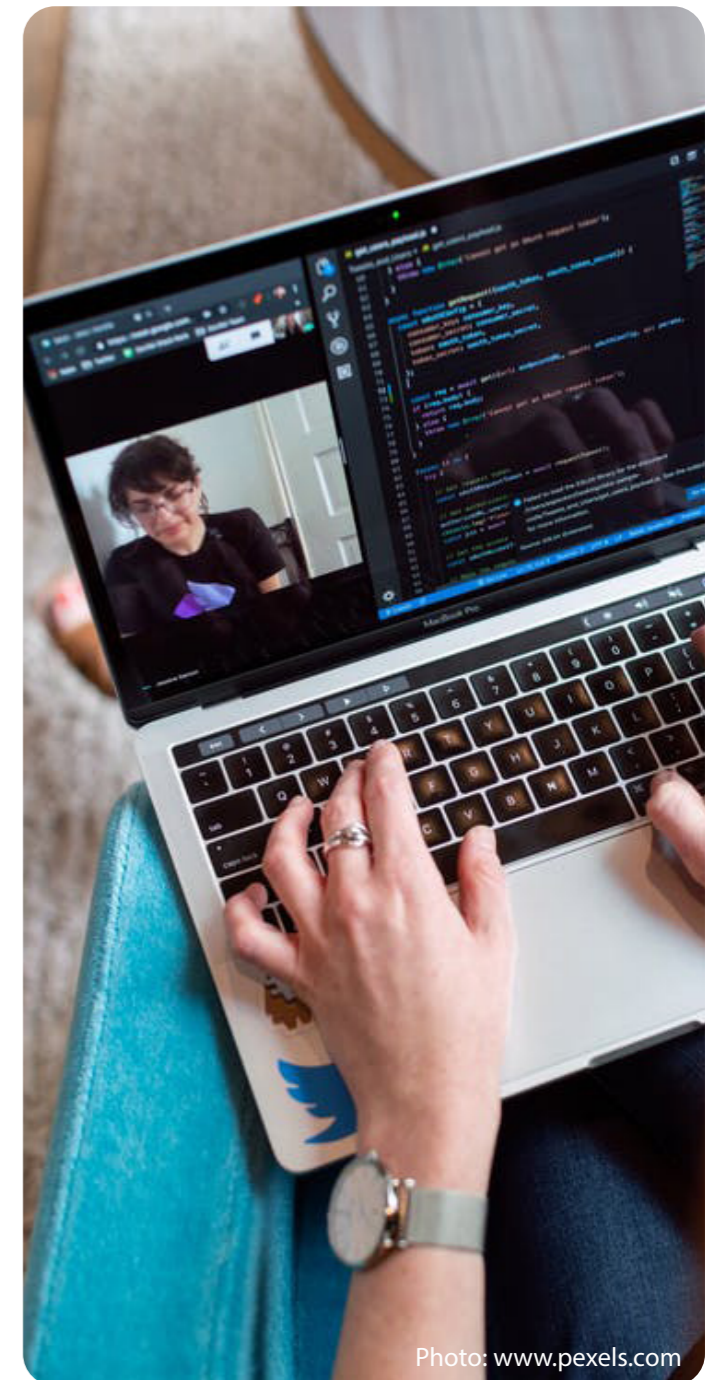


Photo: www.pexels.com



Photo: www.pexels.com

SOUTH AFRICAN FOOTBALL IN CRISIS MODE

By Tumelo Muvhali

South African football quality continues to be exposed, and without major changes, it remains a terrifying ticking time bomb waiting to explode in our faces.

From being run from the back of car boots to fancy boardrooms as a multimillion-rand industry, South African football's journey is very inspirational.

Long before the term "Black Economic Empowerment" became popular, football offered people hope and an escape during a difficult time in the nation's history. The multimillion-dollar soccer industry has now devolved into a poorly managed enterprise, leaving generations of fans concerned about its quality and progress in recent years.

Quality of football

The lack of South African players in top leagues like the Italian Serie A, German Bundesliga, Spanish La Liga, and English Premier League may be a reflection of the style of football we play in South Africa. Local athletes barely register in these high-level tournaments, whereas West African superstars like Sadio Mane continue to rule.

This raises the question of whether participating in the South African Premier League is insufficient for developing players of the highest caliber who possess the necessary technical and tactical prowess.

Bafana Bafana

It is worth noting that the senior national football team has failed to qualify for five major tournaments since South Africa hosted the FIFA World Cup in 2010 - three times in the AFCON and twice in the World Cup.

This is, by all accounts, a dreadful turn of events and a massive disappointment for millions of sports and football-loving South Africans. The failure of the team to represent the country in continental and world football championships speaks volumes about the country's football standard.

South African Football Association

How can it be that local football is still in a slump 27 years after South Africa was reinstated on the world football scene and more than 12 years after hosting the world's biggest sporting event? This is totally unacceptable for a nation that has some of the top sports infrastructure and facilities in the world.



Photo: Jeremy Walker

ASHLEIGH VAUGHAN – AN AQUATIC GENIUS

By Yamkela Zakhe

The Madibaz Water Polo Club received numerous honours at the Nelson Mandela Bay Aquatics Awards ceremony in Gqeberha last month, as a result of a consistent dedication to improving their skills. The women's squad was selected club of the year while Ashleigh Vaughan was chosen as player and athlete of the year.

Ashleigh started playing water polo at the age of 13 when her father introduced the sport to her and her sisters. This year, she competed in both the world championships in Hungary and the Tokyo Olympics as a representative of South Africa.

"Being selected to play for South Africa at the Tokyo Olympics took me by surprise, I never expected it, but I tried not to make a big deal out of it but on the inside, I was pretty stoked," said Ashleigh.

The 23-year-old also gave some insight into some of the challenges that she has had to face in Tokyo.

"Getting along with the new teammates was quite difficult. Finding that combination in the pool is vital and I eventually found myself "clicking" with a few players that I could trust and work well with," she said.

As of this year she has also played in the Hungary World Championships. These were held in different cities from 18 June – 03 July in Hungary.

Prior to her trip to Hungary, Ashleigh admits that she had spells where she suffered from imposter syndrome and whether she was good enough to be part of the team. But the athlete of the year did not let this bring her down for long.

"When I was in Hungary I learned to never go into a game with a losing attitude. We are playing as a women's team for our country, so you have to be mature about things."

Her list of accolades did not just end there, she was also nominated for the Nelson Mandela Bay Aquatics awards where she won numerous awards.

Despite all these glittering set of achievements, Ashleigh says her biggest achievement is being the first South African woman to score a goal at the Olympics.



Photo: Siyolise Gqongwana

WHAT'S NEXT FOR MADIBAZ RUGBY?

By Tumelo Muvhali

After challenging times in the 2022 FNB Varsity Cup campaign, supporters are wondering what the future holds for this young team. The Madibaz rugby team had a difficult Varsity Cup season earlier this year, but much can be said about the squad's fighting spirit in the face of adversity.

Despite a strong finish, the squad has been demoted to the Varsity shield after finishing second from bottom in their comeback season in the varsity cup. This is a very young squad, and everyone is enthusiastic about the team's potential success in the future, notably Madibaz rugby coach David Manuel.

"This is a very young team and 95% of them had never played at that level, or even close to that level. But every week they came out fighting no matter who they were up against," he said. "The reality is that these players need time at this level to mature."

Despite the hurdles, the squad's morale is positive, and they are now focused on the University Sport South Africa (USSA) 7's rugby competition, which will be held at Sol Plaatje University in Kimberly.

The tournament started on September 24th, and the young guns were eager to demonstrate what they are made of and repay their supporters for their incredible support. Soon after, they move on to the University of Pretoria for the Varsity Sport 7's rugby tournament, which started on October 7th.

Varsity Sport 7s Rugby competition welcomes teams from South Africa's top 10 universities and is set to generate an incredible atmosphere. The Madibaz coach emphasized how crucial it is for the supporters to have faith in the rugby program they are working to establish.

"It's important to realize that I'm here to rebuild this system and that will always take time. Be patient because we need your support." was his simple message to the fans.



Photo: Siyolise Gqongwana

THE NEW KIDS ON THE BLOCK

By Yamkela Zakhe

Premier City Ladies Football Club is a ladies under u23 football team founded earlier this year by Mahle Mbilase one of the team players. They are coached and managed by Malibongwe Mtshali and his assistant, Siyahluma Silinga.

Their first game was on 10 September 2022 on the Madibaz Sports day, where they came up against a team called Women Cave Football Club. They won 3 out of the 4 games.

"The tournament we had on the 10th was our first opportunity to showcase our skills as a team, however we are still looking for any other tournaments or leagues to partake in," said Lerato Motlohela the captain of the team who's recently doing her Diploma in Marketing at Nelson Mandela University.

Lerato revealed that their biggest achievement as a team came at the Madibaz SRC Sports Day tournament where they managed to bag second place. Since then, the team has recruited a lot of new players who are enthusiastic about joining the team and improving their overall football skills.

The skipper also went on to talk about the challenges that they have and are yet to face as the new kids on the block, including the lack of football experience among most of the players.

"We are only focused on fitness and basic ball control. A lot of girls in the team are new to football so we are just trying to get everyone to master football basics before moving on to intense training," she said. "Our biggest challenge is not being able to find other ladies teams to play against in order to improve match fitness."

"We overcome failure by figuring out where we went wrong and try to do better. Also, we share the same mutual fighting spirit and we acknowledge that we learn from our mistakes. At the end of the day, we are not just a team but a family," she concluded.