

TECH TITANS SAVE THE CITY



As Belize embraces the digital age, Information and Communications Technology (ICT) offers a wealth of tools to fuel innovation, education, and national development. Recognizing this potential, the Ministry of Public Utilities, Energy, Logistics and E-Governance through the E-Governance and Digitalization Department is committed to bridging the gender gap in ICT. We believe in empowering girls and women to explore the exciting possibilities this field holds. Their unique perspectives and innovative ideas are crucial for shaping Belize's digital future.

The Tech Titans Comic features four extraordinary Belizean women who are shattering barriers utilizing ICT. They are our real-life superheroes, harnessing technology to tackle diverse challenges and propel Belize forward.


To all the aspiring ICT heroes out there, girls and women alike, this comic is dedicated to you!

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Welcome to the city of Athena, bordered by lush jungles, where a calm river splits its town and colorful fishing boats lines its shores. But even in this peaceful place, hidden dangers await. Lucky for us we have our heroes to protect our home.





I have breached the city's network. The chaos will ensue, and nature's fury will be unleashed upon you all.

Uh-oh! Anonymous is causing chaos with a cyber attack on our city! He's messing with everything - our internet, phones, and even power lines! If we don't stop him, it's gonna be total chaos!

The four women get together to view the holographic image showing the damage being caused by the digital attack.



OMG!

We've got to find a way to save the City.



Dr. Green Earth - Sustainable Conservationist.
Uses technology to monitor animals and the environment.



Scarlet Structure - Civil Engineer.
Uses Technology to design and build the city's Infrastructure.



Dr. Brainstorm - Digital Creator.
Creates programs to guide the drones and protect the city's networks.



Binary Blossom - Master data analyst.
Dives deep into the numbers and trends to find the solutions.

"The Tech Titans are teaming up to stop this attack and keep everyone safe! With their tech skills, they'll protect us, the animals, and our environment. Together, they are unstoppable!"



The Cyber attack is causing black-outs everywhere leaving open the doors at the nearby zoo. The animals have gone wild damaging and breaking the power lines. This is creating fires everywhere. The wildlife begins to escape these fires and head straight to the city.

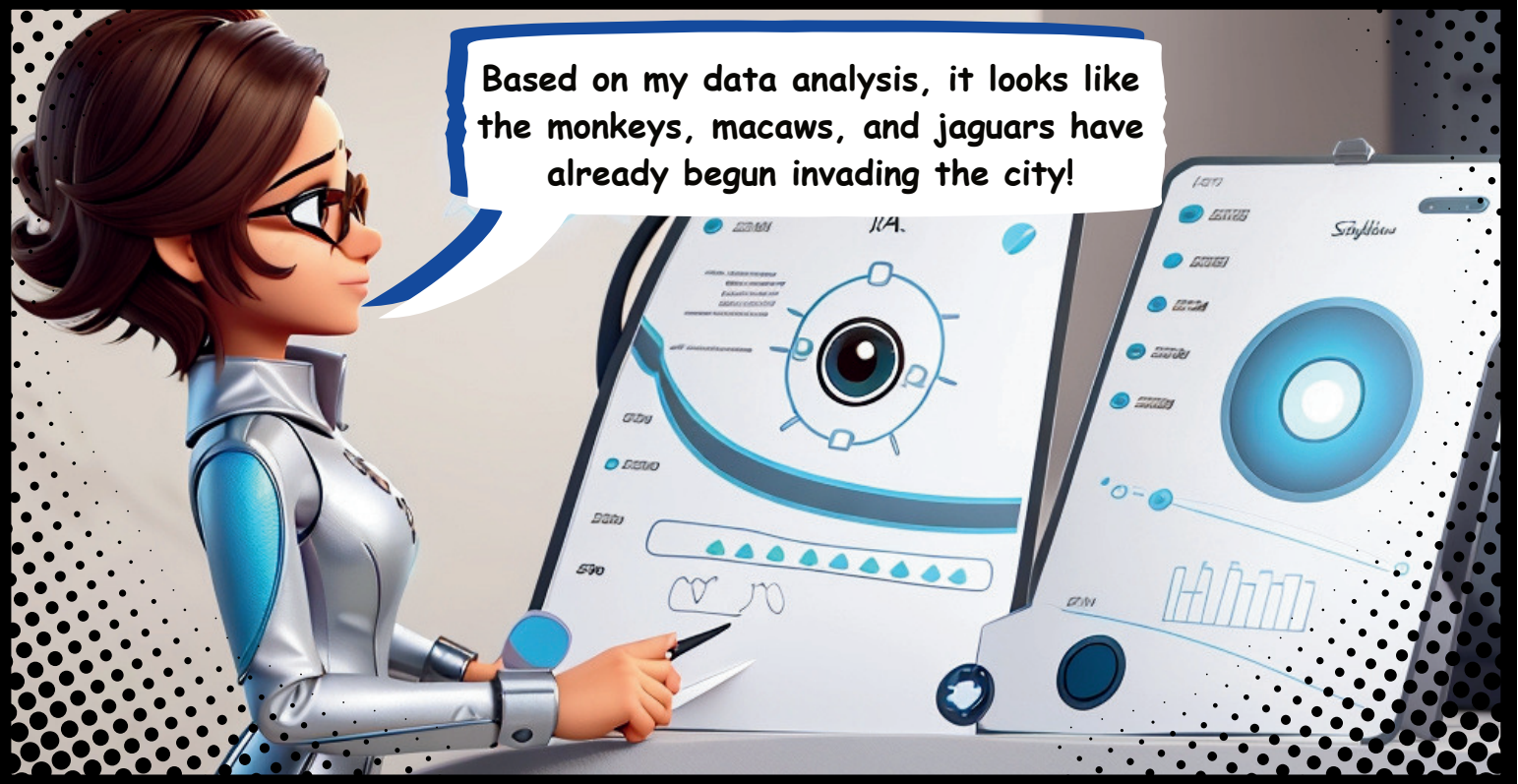


The wildlife is headed this way!



The city's infrastructure needs to be prepared for anything. We can't afford any vulnerabilities.

Based on my data analysis, it looks like the monkeys, macaws, and jaguars have already begun invading the city!



The data on the map is showing the animals are heading our way fast!



The wildfires are driving the animals out of their home, and they are headed to the city - hungry and hostile!





The attack messed up the city's network. We've lost our phones and internet everywhere!

HMM



I can't get back into the meeting!

AARGH!



?!

OMG!

HEY!

Teacher we have a problem!

The internet is not working!

Why?



I've lost signal too! We're completely cut off!



Even my cellphone won't connect!



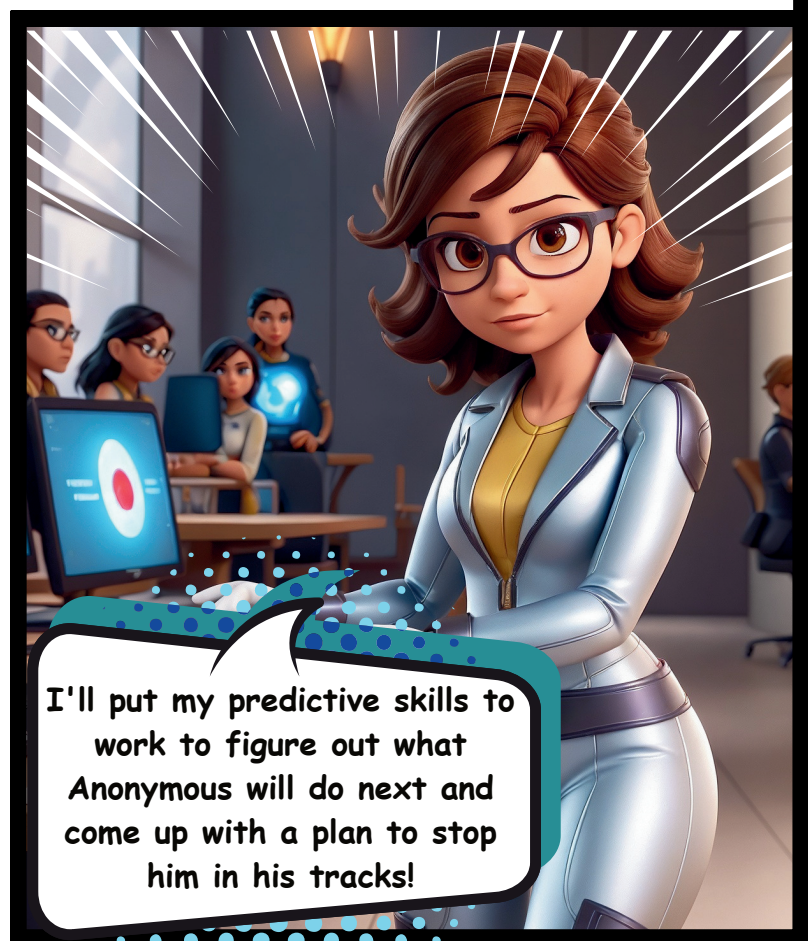
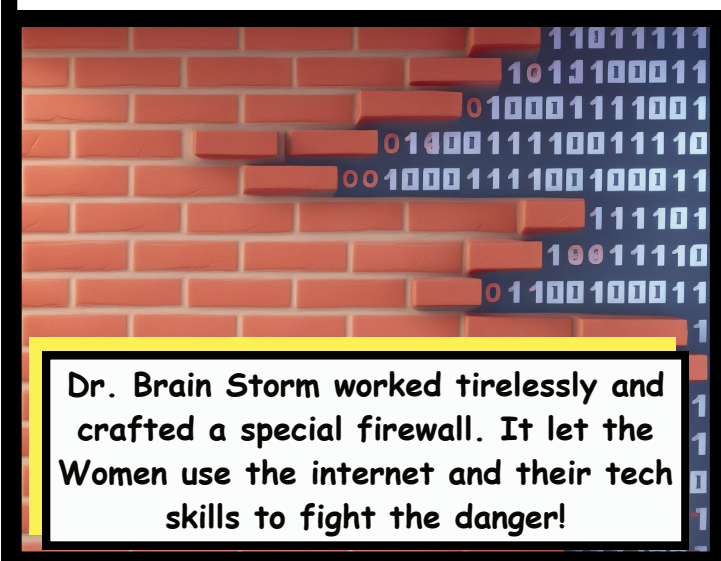
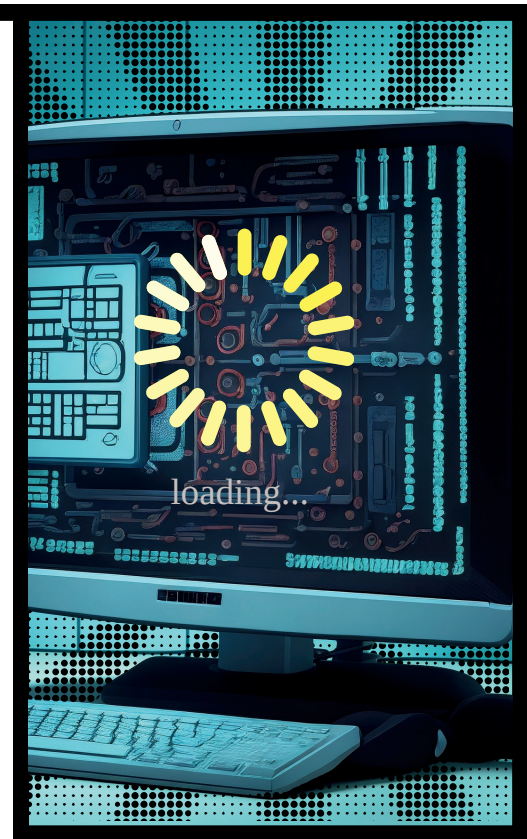
We have got to tell our leaders before things get worse!



OMG!

We need to act fast! If we don't, the entire country will be in jeopardy!

Dr. Green Earth stormed into action, rallying with the City's Leaders to allocate resources for the epic battle against the cyber-attack! With their support, the ladies would be ready to take on anything!





I'll program these drones to help Dr. Green Earth guide the animals!



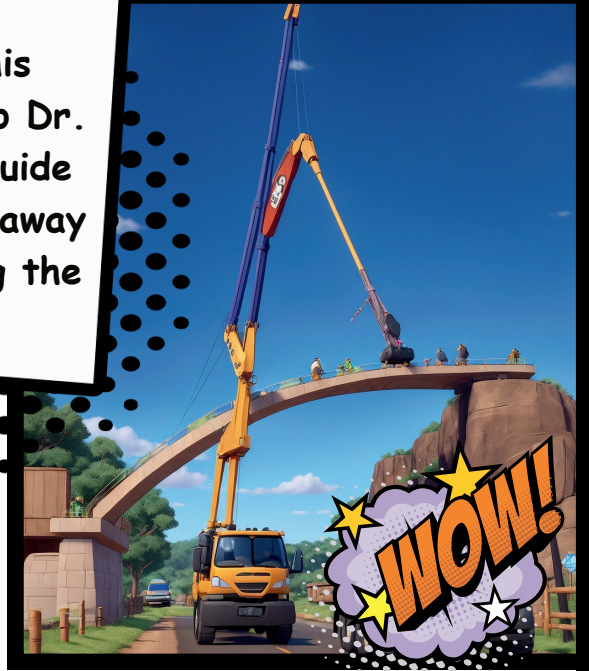
BUZZ



HMM...

My skills can help steer the drones through the jungle, leading the animals to safety.

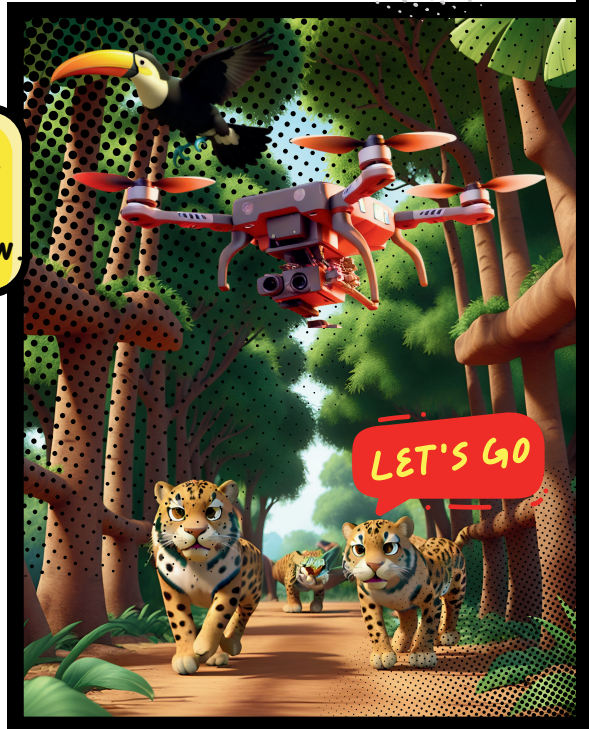
Let me finish this Wildlife Crossing so Dr. Green Earth can guide the animals safely away from the city using the drones."



We made it past the fires. I think I have them under control now.



LET'S GO



I found it! I have located Anonymous' malware signal.



They are using the crossing







TECH TITANS

THE END

**BINARY
BLOSSOM**



ALSO KNOWN AS
**SHAJIRA
MARTINEZ**

DRIVING DREAMS WITH DATA

I didn't start my career in STEM, despite my early affinity for math and science. For a decade, I worked in marketing research and development, occasionally touching on the technical side. In 2013, my interest in math and science rekindled, leading me to pursue data analytics at SNHU. Graduating summa cum laude in 2019, I seamlessly applied my newfound skills in the Information technology division's Business Intelligence Department, nurturing a deeper appreciation for my field.

Sharing knowledge with colleagues over two years was a defining experience, solidifying my passion for analytics. Achieving both bachelor's and master's degrees in data analytics stands as my proudest accomplishment. However, in Belize, data analytics remains relatively uncharted territory, with growing recognition of its potential impact.

Integrating personal values into professional work is pivotal. Upholding ethical standards, continuous learning, aligning projects with values, and volunteering are cornerstones of my approach. Yet, being a woman in a male-dominated field poses ongoing challenges. Despite this, leadership pursuits are driven by a thirst for learning, growth, and community impact.

Data analytics' global demand underscores its potential in Belize. Leveraging data could revolutionize sectors like tourism and agriculture. Personally, I aspire to contribute significantly to Belize's development, drawing from a decade-plus journey in the field.

For those dreaming of becoming data analysts, I encourage diving into the art of storytelling with data, sharpening critical thinking skills, and mastering statistics and programming. Building a robust portfolio, networking, and time management are crucial for success. Balancing personal and professional commitments requires setting boundaries, prioritization, and self-care practices like time blocking.

In essence, transitioning from business to data analytics has been a journey of discovery and impact, fueled by a commitment to continuous learning, community engagement, and leveraging data for positive change.

**SCARLET
STRUCTURE**



ALSO KNOWN AS
**RAMY
CHIA**

CHAMPIONING ENGINEERING EXCELLENCE FOR BELIZE

I am a Civil Engineer driven by a passion for art, the outdoors, and a profound commitment to Belize's development. With a Civil Engineering degree from Cuba and a Master's in Geotechnical Engineering from Spain, I've dedicated my career to leaving a lasting impact on Belize's infrastructure landscape.

ICT has played a pivotal role in my work, enabling me to leverage technology for innovative engineering solutions. From utilizing advanced software for design and analysis to employing Geographic Information Systems (GIS) for effective project management, ICT has enhanced the efficiency and effectiveness of my engineering projects.

Notable among these is the Solid Waste Project, where ICT facilitated the establishment of Belize's first landfill and a network of transfer stations. Similarly, in major road projects like the Coastal Road Highway, ICT tools have significantly improved transportation connectivity in the country.

My expertise encompasses precise design creation, real-time collaboration, and project management optimization, ensuring excellence in every endeavor.

Breaking barriers, I proudly served as the first female president of the Association of Professional Engineers of Belize (APEB). Advocating for gender equality in engineering, I strive to inspire future generations, regardless of gender, through mentorship and leadership.

My commitment extends beyond professional endeavors to community outreach initiatives promoting STEM education. Through initiatives like the "Young Women in Engineering and Architecture Tea Party," I empower young girls to pursue careers in engineering and architecture.

Looking ahead, I envision engineering in Belize transcending gender stereotypes to become a diverse and inclusive profession driving the country's progress. My children's book, "Amy's Red-Haired Dream," stands as a testament to my dedication to inspiring the next generation of engineers.

To aspiring engineers, I offer this advice: Embrace challenges with resilience and effective time management. The journey may be tough, but the rewards of seeing your contributions turn into visible projects are immeasurable.

As an engineer, I take pride in shaping a better future for Belize, one infrastructure project at a time. I believe in being the change you want to see in the world, and through ICT-driven innovation and inclusive leadership, I am committed to realizing this vision.

**DR. GREEN
EARTH**



ALSO KNOWN AS
**DR. ELMA
KAY**

CHAMPIONING CONSERVATION IN BELIZE

Hailing from the verdant landscapes of Progreso Village in Belize's Corozal District, my educational journey took root in humble beginnings. Scholarships led me to Muffles College in Orange Walk town and St. John's College in Belize City, where my fascination with science and protecting our environment blossomed. This passion propelled me to Saint Louis University in Missouri, where I earned a Bachelor of Science degree in Biology and Bachelor of Arts in Chemistry. These formative years laid the groundwork for my career at the intersection of science and conservation.

Information Communication Technology (ICT) has played a pivotal role in my work, enabling data-driven conservation efforts, and fostering collaboration across borders. From molecular biology and systematics research to the use of geographic information systems, technology has been instrumental in advancing our understanding of biodiversity and ecosystem dynamics.

Returning to Belize, I embraced a dual role of educator and conservation practitioner, cofounding the University of Belize Environmental Research Institute. Leveraging technology, we spearheaded collaborative initiatives to understand and protect Belize's ecosystems and natural resources. Climate and land use change modelling, forest cover analysis and camera trap survey data on wildlife assisted the protection of incredibly biodiverse and critical places such as the Maya Forest Corridor and the Belize Maya Forest. Today, the use of technology and collaboration with partners helps us monitor and measure the threats to these important areas and impacts of our work and make decisions for their management. Such collaborative approaches earned me recognition with the James A. Waight Conservation Award in 2016, highlighting the power of collective action in safeguarding our natural heritage.

Beyond honors, my commitment to conservation is deeply rooted in community engagement and empowerment. Through participatory planning initiatives and mentoring graduate students and other organizations, I advocate for a holistic approach to conservation, integrating environmental protection, social equity, and economic viability.

As I navigate challenges and celebrate milestones, my belief in the transformative power of collective action remains unwavering. Conservation is ultimately about people, and it is through shared efforts and resilience that we can shape a sustainable future for all.

In moments of reflection, I find solace in being in nature and sharing nature with loved ones. For me, conservation is not merely a profession—it is a calling, a lifelong commitment to safeguarding our planet's precious ecosystems and nurturing a harmonious relationship between humanity and nature.

**DR. BRAIN
STORM**



ALSO KNOWN AS
**DR. SHARMAYNE
SAUNDERS**

PIONEERING TECHNOLOGY IN EDUCATION

Armed with a doctoral degree in Organization and Management, specialized in Information Technology Management, along with a Master of Science in Telecommunication Systems Management and a Bachelor of Science in Computer Information Systems, my career has been defined by a relentless pursuit of innovation and impact.

My journey commenced at Belize Social Security straight out of St. John's Junior College. Recognizing the untapped potential of technology, I spearheaded initiatives to modernize operations, setting the stage for a career marked by transformative endeavors.

Accelerating through my Bachelors in Science program during the Y2K era, I honed my expertise during global attention on technological advancements. This led to consultancy opportunities, including a pivotal project establishing telecommunications systems for the National Emergency Management Office.

Venturing into the academic world, I joined The University of the West Indies Global Campus, where I played a pivotal role in pioneering online education initiatives. As the COVID-19 pandemic unfolded, I leveraged my technical acumen to lead capacity development efforts across educational institutions, addressing unprecedented challenges with resilience and innovation.

My dedication and achievements have been recognized through prestigious awards, including Alumni of the Year by Murray State University and acknowledgment as one of Belize's Top 20 Most Influential Women.

My commitment extends to research and community engagement. As an editor for peer-reviewed journals and a member of academic committees, I strive to advance knowledge and foster collaboration within the STEM community.

In mentoring aspiring professionals, I emphasize the importance of lifelong learning, proactive initiative, and authentic leadership. By prioritizing work-life balance and embracing challenges with resilience, individuals can navigate the dynamic landscape of technology with confidence and purpose.

Looking ahead, I envision a future characterized by continual growth, interdisciplinary collaboration, and meaningful contributions to education and technology. Through unwavering dedication to my values and passions, I aim to inspire positive change and empower future generations to shape a brighter tomorrow.

Furthermore, I am committed to promoting diversity, equity, and inclusion within the STEM community, advocating for opportunities and representation for underrepresented groups.

TECH TITANS

CREATED BY RAMY CHIA



Follow us to learn more about our journey towards greater inclusion of women and girls in ICT.

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