Women in ICT in the Republic of Mauritius
Introduction

This edition of the UNDP Gendered Voices Newsletter provides insight into the lived experiences of Mauritian women working or engaged in the ICT sector. The aim is to shed light on the opportunities in the ICT realm and the specific gendered barriers that women face in this field, including from the onset of COVID-19. The newsletter also seeks to highlight the various coping mechanisms women have developed to adapt and build resilience. The evidence-based information may provide substantial entry points for policy-making and help devise inclusive targeted strategies to empower women in ICT and ultimately meet their immediate and long-term needs.
I feel deeply privileged to be associated with the publication of this newsletter that focuses on the forward-thinking role of women in the field of ICT.

Ineluctably, all countries today have to face the headwinds of technology-induced change. Digitalization has become an unavoidable requirement in all sectors and this transformational scenario hardly leaves space for the non-participation of Mauritian women, representing as they do 50 percent of the population.

And women are responding to the challenge, despite the research-based hurdles identified in this newsletter. The four young persons who expatriate on their ICT-based professional journey are doing more than merely speaking about their work.

They, in fact, are sending a symbolic message: their stories are theirs to narrate, and nobody else’s!

It is their voices we hear and these voices are loud enough even in ICT-based domains of professional activity that are emerging and therefore posit new challenges.

As policy shapers, it is our role, as a forward-looking Government, to make sure that we open wider the windows of opportunity and empower women to do away with both the glass ladder and the glass ceiling that restrict and deter their full emancipation.

Education has here a major role to play in this emancipation process. Hence, the implementation of a number of policy actions leading to the integration of ICT in school curricula right from an early age. Major action points have been initiated across the sub-sectors of education, including the implementation of Boot Camps for the teaching of coding and programming as well as robotics in girls’ schools at the secondary level.

These and similar actions must have lifelong sustainability. Indeed, Industry 4.0 demands a working familiarity with technologies, including software technologies.

Women have always demonstrated their creativity and capacity to explore new avenues and come up with innovative ideas, in whichever field they operate. And this strength that is innate in women propels them to play an even more important role in innovation which, we all agree, is and will remain the norm.

Information and communication technology (ICT) is a broad term encompassing communication devices or applications such as computers, hardware, software, Internet, mobile phones, satellite systems, and so on. ICT also refers to other associated services and applications (Apps) e.g. digital media and videoconferencing. In the last few decades, the introduction of technological innovation has significantly impacted and boosted human interactions globally. Since the outbreak of COVID-19, ICT has also been harnessed at an unprecedented rate and scaled up to facilitate ‘work-from-home’ and communication in general, especially during lockdowns.

The UNDP Broadband Commission for Sustainable Development highlighted that universal access to ICT, underpinned by the concerted efforts of political leaders, public and private entities, can play a fundamental role in advancing sustainable development. However, while human development has been spurred by technological advances, so has inequality. Data on 116 countries shows that women’s median share of employment in ICT is less than one third (ILOSTAT). Another gender disparity in ICT is the gender pay gap at a median of 21% - which is much higher than the 16% median gender pay gap for the overall economy.

From 2000 to 2019, Mauritius has experienced an exponential growth rate in Internet usage growth of 824% resulting in a penetration rate of about 70% of the total Mauritian population (Internet World Stats, 2019) with access. Mauritian Internet users mostly use the internet medium to search for information, for communication, digital media and social media engagement. Leveraging fast and major digital transformations, spearheaded by the Government and private entities, the country today seeks to position itself as a digital hub in Africa and beyond. Ranked first in Africa in the UN e-Government Index 2020, the Mauritian Government launched the Digital Government Transformation Strategy 2018-2022 in 2018, to expedite the digitalization of the public sector, and governmental services and communication.

In 2019, the ICT workforce in Mauritius comprised 7,838 women and 8,324 men. A study led by the Mauritius Research and Innovation Council (MRIC) highlighted that fewer women than men opt for ICT studies at High School Certificate and tertiary levels. In 2020, only 5.6% females studied IT compared to 16% males. Other studies show that the entrenched patriarchal cultural system of Mauritius foments gender norms, values and stereotypes that contribute to impeding the promotion and realization of gender equity in the tech sphere.

Several grassroots initiatives have been put in place to address gender gaps in ICT. The Ministry of ICT and the Ministry of Gender Equality and Family Welfare jointly organized a workshop in 2018, entitled ‘Empowering women through ICT’, to help forge pathways for women and girls in the sector. Other national strategies to promote ICT in education include the Early Digital Learning Programme (EDLP) project, which was introduced by the Ministry of Education in 2018. The EDLP project integrates ICT into teaching and learning of students in primary education to bolster the digital literacy of youth (including young girls). This is done through the use of tablets with pedagogical content such as videos and e-books; interactive animation, and other creative tools. 36,800 tablets and headsets have so far been distributed across all primary schools.

Through the Women Tech Country Leaders website consisting of over 100,000 members, 28 outstanding Global Ambassadors from Mauritius are using the interactive platform to network with other female leaders in tech around the world, gain exposure, share knowledge, and participate in tech training and beyond.

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Message from ...
Hon. Mrs. Leela Devi DOOKUN
LUCOOMUN, GCSK
Vice Prime Minister
Minister of Education, Tertiary Education, Science & Technology

Date: 01 June 2022
Divambal Lutchmanen has over ten years of work experience in fisheries. She began with a position in the Import and Export Unit of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping, before being assigned as technical officer in the Fisheries Monitoring Centre (FMC) in 2011. In 2017, she was promoted as scientific officer. Passionate about science and technologies, Ms. Lutchmanen explains her tasks as officer of FMC, and speaks about the opportunities and hindrances she faced as a woman in the sector.

"After completing a BSc in Agriculture, specialising in Aquaculture, I found myself in the fisheries sector whereby I had to gather new skills and learn everything from scratch. One of my prime duties as a technical officer then, was the assimilation of the technicalities and technologies of the Vessel Monitoring System (VMS), which is a satellite surveillance system primarily used to monitor the location and movement of licensed industrial and semi-industrial fishing vessels within the EEZ of Mauritius."

"Today, my duties as a scientific officer have increased! They encompass the daily monitoring of all licensed fishing vessels; liaising with the UK-based service provider, the National Coast Guard (NCG), the Ministry’s licensing and Port State Control units; identifying dubious activities at sea and apprising the Ministry and NCG; following on the imminent implementation of the Electronic Reporting System (ERS) which will e-transcript all paper logbooks; etc."

When the VMS software, introduced in 2005, was upgraded in 2013, Ms. Lutchmanen received first-hand training on the intricacies of the updated system. In 2022, through the ‘Support to Resilience through Digital Transformation and Capacity Development’ project, the UNDP is funding a new review of the VMS and new recommendations on the way forward will be provided.

"Regardless of one’s background, as a public officer, adherence and adaptation to the prevailing system in place are key. In spite of the daily routine, the work is not all that mundane. In the last two years, my technical officer, also a young woman, and I have been working on reviewing the VMS regulation and on the genesis of an ERS regulation. Both documents have been handed in to the State Law office for evaluation before promulgation. I am immensely pleased with my substantial and scrupulous contributions to both regulations!"

There is gender parity, in terms of male and female workshare, in the Fisheries division of the Ministry and FMC. However, the leadership roles remain male-dominated. That said, the current assistant Director of Fisheries is a woman.

Given the nature of my work and the authority that it embodies, that is without VMS clearance, no licensed fishing boat or vessel is allowed to depart from the port, I have been verbally chastised and even threatened by some male operators. When a boat is not reporting its location or when its VMS transponder is switched off, or for any other irregularities, I cannot grant clearance as per regulations. In such circumstances, I have had to put up with comments like "You are still a child, you don't know what you are doing!" or "If you don't issue clearance, I will report you to the higher ranks!"

Ms. Lutchmanen has stood steadfast in the wake of rebukes and intimidations linked to her gender and youth. Moreover, she keeps focused on her assigned responsibilities, thus contributing towards fending off Illegal, Unreported and Unregulated (IUU) fishing activities in the EEZ of Mauritius.

"Fisheries and associated technologies may seem to be an unbefitting place for women. However, more and more women are gravitating towards such kind of historically male-centric domains. I fully encourage women and girls not to feel apprehensive before challenges, but to muster the will and effort to learn and show that they can unequivocally do anything... because we can!"
Empowering Parliament through Innovation and ICT

Saseeta Ramsahye-Rakha is the Manager of the Digital Services and Broadcasting Unit at the Mauritius National Assembly (NA). As she recalls her professional career progression, Ms. Ramsahye-Rakha explains that she started off as an Administrative Clerk around twenty-five years ago at the Ministry of Arts and Culture. She resolved to simultaneously pursue her tertiary studies in Information Technology, and after two years, she joined the Central Information System Division (CISD) of the Ministry of Information, Communication and Technologies. Rising through the ranks at the CISD, Ms. Ramsahye-Rakha worked on various ICT assignments in multiple public entities, before permanently joining the establishment of the National Assembly in 2018.

The Parliament is a sui generis institution with unique users. It processes the highest number of documents spanning bills, parliamentary debates, tabled papers, and more. Subsequently, the National Assembly swears by the efficacy and robust capacity of its ICT infrastructure to underpin its digitalized legislative processes.

Ms. Ramsahye-Rakha has been the assigned Analyst for the National Assembly site since 2003. However, she was permanently posted at the National Assembly, as CISD Senior System Analyst, in 2008, to implement the Digital Recording System project. This important shift towards digitalization enabled the publication, by the Parliament, of Unrevised Debates within 24 hours for the first time in history in March 2009. When the NA’s digital infrastructure began to gain momentum, it encouraged in-house staff to manage the ICT system which supports daily workflows, parliamentary sittings, and business processes. Given this unprecedented opportunity, Ms. Ramsahye-Rakha was selected to head the ICT Unit.

From the outset, the ICT unit has embedded broad technological novelties within the parliamentary processes. With the support of the ICT Team, Ms. Ramsahye-Rakha conceived web and mobile applications; installed modern document filing systems; databases; voice-to-text system; robotics; and AI and automation. Today, the website of the NA is a depository of important national documents including legislations, debates, amongst others. As such, paper-use has been scrapped by 95 percent.

The Online Portal of the NA has not only reified the work and services of Parliament, but also enhanced the institution’s openness, accessibility, and democratic initiatives. To further expedite the realisation of a Digital Parliament, the UNDP has funded the ‘Business Continuity Plan model for the Government of Mauritius’ project which encapsulates the implementation of a Parliamentary Electronic Document Management System supporting Virtual Collaboration Tool aligned with a Citizen Centric App.

During lockdowns triggered by COVID-19, the Parliament ICT team devised innovative ways to sustain the workflows of parliament, and adapt to unprecedented impediments. Thanks to incorporated technological advances, Members of the Rodrigues Regional Assembly were able to remotely partake in parliamentary sittings and even debate!

Ms. Ramsahye-Rakha mentions that no technological advancement is possible without support of the people within the organisation. It is worthwhile to note that the National Assembly has a group of dynamic women who have been assigned most of the parliamentary key tasks. These include the Deputy Clerk, the Deputy Permanent Secretary, the Clerk Assistant, the Deputy Parliament ICT Manager and the Chief Hansard Editor.

“The future is overtly ICT! I urge women and girls to seize ICT opportunities and careers, so they do not lag behind!”
Innovative and Game Changing e-Marketing Strategies

With over 15 years of experience in the marketing sector, Kelly Wong is today a well sought-after Marketing Strategist. After excelling in her studies abroad, the scholarship student returned to Mauritius where she began to work in a professional firm providing Audit, Tax and Advisory services, while remotely pursuing an MBA. Joining a well-known commercial bank 5 years later, she shared that it was her audacious move to an iconic surf brand that sparked off her career as an e-Marketing Consultant.

"As a young woman working in a well-established bank, it was daunting but exciting to embark on a new venture with the iconic surf brand - back then an ailing brand needing repositioning. The company entrusted me to bring a complete overhaul of their marketing mix (encompassing a review of product, price, place, promotion, people, etc.) and incorporate innovative digital technologies in their marketing structure. With my team, we created the very first fully customized QR code, embedding the logo of the brand within it, in Mauritius. The booming growth of the brand resonated in the corporate world and I became the face of that success!

Shortly after, big corporations began seeking my help to revamp their marketing. Among them, a then-struggling shopping mall in the North of the island. Again, that was another success story! Offers flooded in for me to join Marketing teams! In 2016, I joined the Ennovatek Team and helped the digital agency become a full-fledged marketing firm offering branding consultancy, advertising and e-marketing services to a broad range of firms."

A strong proponent of environmental protection and sustainability, Ms. Wong capitalizes on digital innovation and online green marketing tactics to curtail paper usage. She also spearheaded the branding of MARENA - a new Government-owned agency responsible for promoting renewable energy in Mauritius. In this light, Ennovatek created the first animated customized QR code with the logo of MARENA - which was another major innovative milestone.

"COVID-19 has impacted my work. For most of our clients, their first response to the pandemic was to slash their marketing expenses. On the other hand, some clients saw opportunities in the midst of this economic crisis. During the first lockdown of 2020, my team and I launched a campaign for a well-known restaurant chain which wanted to step up its delivery via an Online Delivery App. It was a phenomenal hit, earning my company global recognition across the network of the restaurant chain!"

Besides big companies, our clients include NGOs too. In a way, we give back to society by charging a minimal fee, taking into account the financial constraints of these entities. By leveraging the power of marketing and technologies, we help to elevate the work and messages of NGOs. In support of micro-enterprises and local artisans, we created a brand to bolster artisans’ sales and expand their customer outreach.

Ms. Wong expressed that, as a Marketing Consultant, she is very mindful of the importance of not casting women in stereotypical roles, particularly in adverts. In a bid to address gender stereotypes, roles and norms, her company created a Woman’s Day campaign showcasing a male model promoting a household appliances brand.

"We still have a strikingly low representation of women in IT jobs, especially in coding and programming. Yes, there are deep-rooted forms of gendered barriers in the IT world, but I think that women have also internalized the bias and are subsequently limiting themselves. Change begins with a change in mindset.

My friend has bought coding tutorials for her daughter so she can learn, interact and enjoy coding at a very young age. Initiating girls to coding will break gender barriers and prompt girls to integrate the IT world!"

"Initiating girls to coding will break gender barriers and prompt girls to integrate the IT world!"
360° Communication Expertise

5 years ago, Sharon Pudman decided to launch her own company which specializes in communication; project management; marketing; media relation; and more. After 20 years of working for several companies, setting up her own business, Com N Biz, enabled her to embrace a wild array of new possibilities. Ms. Pudman’s new position requires collaboration with various firms; offering tailored services to clients; collaborating with and offering opportunities to communication and media freelancers; flextime; expanding her creative thinking; and integrating sustainable practices in her work methods and services.

“I strongly believe that supporting and boosting women in technology is today another fundamental facet of women empowerment.

Technology is indeed rapidly evolving, with looming job replacements by AI and other technologies. I advise stakeholders to adapt to these inevitable changes; acquire new IT skills; and incorporate innovative tech in their work systems. Notwithstanding the fast evolution of technologies, I still believe that one unique gift that will remain exclusive to humans is our intrinsic ability to create ideas, which is also at the heart of my work.

From a sustainability lens, I am currently working on a UNDP project entitled ‘Mainstreaming Biodiversity Project’. My work as National Communications Consultant encompasses making impactful videos, policy briefs, posters with bold messages on salient marine biodiversity issues for NGOs, schools, government bodies and the public.”

For event planning such as product launching events, Ms. Pudman embeds ways to curb plastic/paper waste such as swapping plastic plates with bamboo ones. She uses an electronic tablet instead of paper-form attendance sheets.

“While the communication sector has seen a rise in female representation in recent years, technology remains male-centric. Women have to be proactive! I have personally taken the initiative to learn the HTML language; know how to create a website; and leverage web marketing and other e-communication tactics to innovate my ICT skills and services. Now is the time for women and girls to nurture interest in ICT and learn how to code.

As an advocate of gender equality, having contributed to the empowerment of women in politics, I strongly believe that supporting and boosting women in technology is today another fundamental facet of women empowerment.”
Findings

This Newsletter brings to light the ways in which Mauritian women are breaking through gender stereotypes, taking leadership in technology and demonstrating that ICT is a place for women. The unique stories of these women also show that when given tools, opportunities and support, women can perform with great aptitude and contribute to the advancement of ICT, and also to the country’s progress in terms of democracy, safety of EEZ, sustainable goals and other areas.

Though COVID-19 has impacted their livelihoods and work in ICT, women have also taken advantage of the unprecedented situation to harness technologies to sustain their job and implement innovative ideas and strategies in ICT.

For Ms. Ramsahye-Rakha, the pandemic situation propelled the development and implementation of new IT systems to sustain parliamentary workflow such as a technology allowing MPs from Rodrigues to engage remotely in parliamentary sittings. All four female experiences have highlighted ways in which digital transformation is benefitting the environment, in line with the Sustainable Development Goals. For instance, e-document filling systems, e-newsletters, e-vouchers, e-logbooks systems for fishing vessels, and e-attendance sheets are replacing paper-forms. Another major contribution of women in ICT, as in the case of Ms. Wong, is addressing sexism, for e.g. in marketing and adverts. Women have also revealed that ICT remains a male-dominated domain with deeply-rooted forms of gender stereotypes and barriers. Our informants all agree that the integration of women in ICT begins at an early age and that girls must be encouraged to cultivate an interest in IT and IT tools such as coding and programming.

Key areas identified for policy intervention encompass (i) the recognition of the pivotal roles and impact that women are making in ICT; (ii) the recognition of how women are putting emphasis on the ecological benefits of digitalisation; (iii) devising more incentives to encourage girls to study ICT and learn to code and program; (iv) policy reinforcement to address sexism, gender-based harassment and glass ceiling issues in ICT; and (v) promoting access to ICT devices and training for targeted disadvantaged women. In an age of technology and digitalisation, the empowerment of women in Information Communication and Technology is vital. Targeted gender responses at policy level can address gendered barriers in ICT and empower women at cross-cutting levels in the ICT domain for immediate and long-term benefits and a technology-driven economy.