

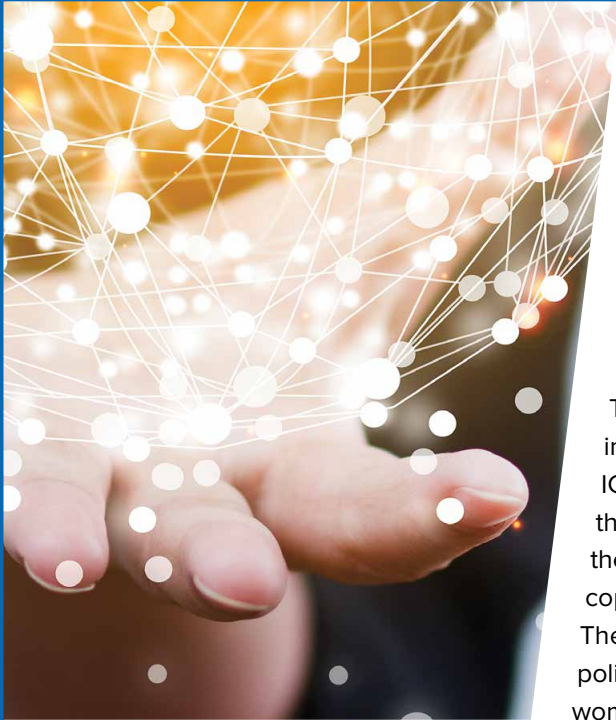


Women in ICT in the Republic of Mauritius



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GENDERED VOICES



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.

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Message from ...

**Hon. Mrs. Leela Devi DOOKUN
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Minister of Education, Tertiary Education,
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Date: 01 June 2022



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 expatiate 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.

**Hon. Mrs. Leela Devi DOOKUN
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Women in ICT in the Republic of Mauritius

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 videoconferencing¹. 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 development². However, while human development has been spurred by technological advances, so has inequality³. 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 economy⁴.

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 access⁵. Mauritian Internet users mostly use the internet medium to search for information, for communication, digital media and social media engagement⁶. 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 beyond⁷. Ranked first in Africa in the UN e-Government Index 2020⁸, the Mauritian Government launched the

Digital Government Transformation Strategy 2018-2022 in 2018, to expediate the digitalization of the public sector, and governmental services and communication⁹. For the African region, Mauritius ranked first in the ICT Development Index 2017¹⁰.

In 2019, the ICT workforce in Mauritius comprised 7,838 women and 8,324 men¹¹. 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 levels¹². In 2020, only 5.6% females studied IT compared to 16% males¹³. 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 sphere¹⁴.

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 sector¹⁵. 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. 26,800 tablets and headsets have so far been distributed across all primary schools¹⁶.

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.

Leadership Role in Fisheries Monitoring Systems and Technologies

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.”

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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!



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 unbecoming 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.

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The future is overtly ICT! I urge women and girls to seize ICT opportunities and careers, so they do not lag behind!

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 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

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.

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Initiating girls to coding will break gender barriers and prompt girls to integrate the IT world!

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