Science & Technology

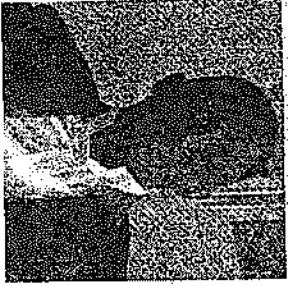## Expanding Internet Connectivity in Liberia: Could Starlink (SpaceX) Help Bridge the Digital Divide in Liberia?

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I had the honor of attending and taking a couple courses at Carnegie Mellon University's Center of Executive Education in Technology Policy (CEETP) over the past few weeks. This opportunity was provided by the US Department of State through the US Embassy in Liberia, under the Digital Connectivity and Cybersecurity Partnership (DCCP) program Courses on my years of global ICT experience, as well as my former role as managing director of LIBTELCO, now. LTC (Liberia Telecommunications Corporation) Mobile. So, let's get started!!

A significant aspect involved in bridging the digital divide is garnering an understanding of the internet penetration of one's country. Since we are discussing Liberia, let us look at reports that discuss Liberia's internet penetration. A recent report from Datareportal report from Datareportal (DataReportal) which is a website "designed to help people and organizations all over the world to find the data, insights, and trends they need to make better-informed decisions", indicated that at the start of 2023, there were 1.80 million internet users in Liberia while report then projected that Liberia will need approximately $432 million to increase coverage from 19% of the population today to 90% by 2030. This means, Liberia will have to invest roughly $36 million every year to meet have to invest roughly $36 million every year to meet infrastructure needs, enable policy and regulatory frameworks, and ensure basic digital skills and local content.

Clearly, Liberia has made some strides-even though gradual-in bridging the digital divide. While all of the reports mentioned above are from credible sources, I strongly believe that the penetration percentage is higher than what has been reported, and that it could be higher if the necessary infrastructure were to be put in place. In fact, we have made way too much strides for the penetration rate to he that low. Despite my

bridging the global digital divide, particularly in developing nations, at a time when Artificial Intelligence is being heralded as the technology of the present and the future. Some of the courses presented 2022, and discussed included Spectrum management, cybersecurity, digital equity and inclusion (DEI), and satellite connectivity.

Our stay at the CEETP allowed us to network and share information with people from all around the world, each having unique experiences to contribute to our conversations. We all exited the program energized and armed with fresh knowledge to share with ICT (Information and Communications Technology) stakeholders in our various nations, including policymakers, regulators, and operators.

Many of us pledged to share our newly acquired expertise with the academic community, where we want to enhance the competence of people who would ultimately manage the affairs of the ICT sector in the next years.

But, before I share with the aforementioned parties, I'd like to utilize this piece to provide you, my readers, with some insight into how we might bridge the digital divide in Liberia. I will draw

population of 5.2 million (www.datareportal.com). The same report indicated that Liberia's internet penetration rate stood at 22.0 percent (1.15 million internet users) of the total population at the start of 2022, and cited a Kepios analysis that indicated that internet users in Liberia increased by 27 thousand (+2.4 percent) between 2021 and 2022. According to this source, these user figures reveal that 4.09 million people in Liberia did not use the internet at the start of 2022, meaning that 78.0 percent of the population remained offline at the beginning of that year.

Another report from the Alliance for Affordable Internet (A4AI) which was funded by USAID (United States Agency for International Development), indicates that Internet penetration in Liberia stood at 19% in 2018, which according to the A4AI report, does not enable Liberia meet the UN Broadband Commission's affordability threshold.

In that report, A4AI and the ITU (International Telecommunication Union) found that it will cost the world an additional $428 billion investment to achieve universal internet coverage by 2030. The

and know that Liberia has hope in bridging its digital divide, and this is because of what I am about to say in the following paragraphs.

To begin, we have heard about opportunities made available by our developing countries and the business community.

President Biden, for example, announced the creation of a national internet network in Liberia to increase connectivity and our national economic development goals. Prior to that, the administration of former President Barack Obama aided in the development of what is now known as the CSquared constructed citywide fiber optic network. That network has enhanced Liberian communications and supplied fiber connectivity to places for connectivity outside of Monrovia.

Recently, while in Washington D.C., I learned that Starlink plans to provide high-speed internet access to underserved areas. Starlink is a satellite-based internet service provided has the potential to drive economic growth, improve education and healthcare outcomes, and increase access to information and communication for people in developing countries.

I am confident that Starlink will help to bridge Liberia's digital divide, especially the 'likes of' Liberia, many people lack access to reliable and fast internet connections due to numerous factors such technologies, which provide

geographic barriers, Starlink's satellite internet service is expected to provide internet connectivity but more expensive to set up. I am aware of the benefits and drawbacks of satellite connectivity. But given that it has been about 13 years since the deployment of the Africa Coast to Europe submarine optical fiber cable, and Liberia's internet penetration has not expanded as quickly as we had intended (due to lack of funding), Starlink's deployment might be the solution to bridging the digital divide.

No doubt, both satellite and fiber optic connectivity have their own advantages and disadvantages, and the choice between the two will depend on several varied factors, but satellite connectivity through Starlink guarantees a larger coverage sooner. Starlink has the potential to improve internet connectivity in Liberia and we must be ready when they begin to deploy or activate internet coverage in Liberia. A map provided by Starlin on their website, shows that Starlink will be available in Liberia in 2024. In fact, I can boast of being one of those who have pre-registered for service in Liberia for 2024, after paying my $9.00 USD on their website. As we prepare for

Starlink's satellite internet which are more expensive to technologies that address developing countries that are prone to such events. Additionally, Starlink's optical fiber cable, and low-latency connectivity, which can improve the performance of real-time applications such as video conferencing and telemedicine.

However, it should be noted that Starlink's internet service is still in its initial stages, and the full extent of its impact on improving internet connectivity in developing countries remains to be seen. Also, the service cost may be a barrier for some users in these countries. Nonetheless,

than fiber optic cables, for example, must be established to address technologies and other factors that our current regime does not touch. A regulator regime is a set of laws, rules, and regulations that control a specific industry, area, or activity. It is a system of rules and standards intended to ensure that organizations and individuals in a specific industry or sector meet certain requirements and obligations. Spectrum concerns are critical in the case of Starlink. To ensure optimum use of our spectrum, proper spectrum management must be implemented. If all goes well, we just might be able to bridge the proverbial digital divide.

Let me end this article by expressing my sincere thanks to the folks at the US Department of State, the United States Embassy in Liberia and the Carnegie Mellon University (CEETP) for according me the opportunity to gain new knowledge to be able to contribute to the development of Liberia's ICT sector. Let me also thank the University of Liberia for all the support provided. Until next week.

Carpe diem!!!