RURAL CONNECTIVITY

ILLUSTRATION: KAZI TAHSIN AGAZ APURBO

DIGITAL DREAM STILL A DREAM IN RURAL BANGLADESH

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The use of internet became available in Bangladesh in the early 1990s with dial-up as the only mode to connect. This allowed users access to a rather limited spread of resources that included email and bulletin boards. During this phase, the number of users was only a few hundred. By mid-1996, the first Very Small Aperture Terminal (VSAT) based service was approved and the number of internet service providers (ISPs) saw moderate growth. Then, the first submarine fiber optic connection was commissioned in 2006, laying another stone to the country's internet journey.

Even though these were significant milestones for the country, we did not see any noticeable presence of rural internet usage during this time. It was not until the end of the decade that we saw noticeable growth in rural internet penetration with the advent of mobile data connectivity. Even then, growth and penetration were one of the lowest in the world with only 0.4 percent of the population using the internet in some way. Between 2009 and 2011, we finally saw a significant growth in internet subscription, bringing the number to around 3.5 percent of the population. During this time, the cost of internet-enabled handsets went down significantly and the competition among ISPs also drove the price down, making it more affordable to connect.

Since 2011, the number of internet users saw steady and impressive growth. Government policies have been favourable to making information technology and connectivity available in rural Bangladesh through implementation of various programmes including establishing Community Information Centres (CIC), digitising various government and public services, and introducing the use of technology in education and healthcare services. There have been many development sector and NGO initiatives working on the same theme. There are now 5,275 digital centres, including 4,550 union digital centers for people in the remote village to benefit from.

According to a report by the International Telecommunications Union published earlier this year, around 18 percent of the population in the country is using the internet. However, government data puts this number at more than 50 percent. While this is a considerable growth in less than a decade, the digital divide between the rural and urban population remains stark. Experts identify high cost, lack of relevant content, poor service quality, and general lack of availability in rural areas as some of the reasons for such a divide.

If we look deeper into the reasons why we are not seeing growth of internet usage in rural areas, we have to first understand how the rural population perceives the need for accessing and using the internet. The primary reason for using internet in the rural area is to access information. A survey done on about 1,000 households in five districts in 2010 revealed that the main types of information rural internet users seek include market price, agriculture, healthcare, job, news, and entertainment.

The information also needs to be relevant in the local context and presented in a way that is useful for them. And, this is the part perhaps the majority of our efforts thus far to promote the spread of the internet in the rural areas have fallen short in. Not many of the efforts we discussed above focus on developing and customising content to meet the specific needs of rural internet users.

During the early years of availability of the internet in the country, we heard healthcare concepts such as telemedicine and tele-diagnostic services. There were a number of programmes designed and launched by various development organisations and NGOs that attempted to implement these to offer remote medical consultation and diagnosis services. These programmes ultimately failed to scale or meet users' expectations because when it came to healthcare, people still preferred that doctors saw them in person, felt their pulse, and prescribed medicine after talking to them face-to-face. The idea of seeing a doctor over a virtual connection or a video conference call seemed too abstract and unreliable even to most urban dwellers let alone the rural population with not a lot of exposure to such technologies.

In our line of work, it is imperative that we take the ground realities of internet connectivity in rural areas into consideration while designing products and solutions in agriculture and healthcare. For example, in my experience of working with tech products in rural areas, applications were designed to be low-bandwidth intensive, to deal with low bandwidth and poor quality of service. Meanwhile any disruption in connectivity could be handled in the background without the user having to start over or losing valuable data.

One of the apps I was involved with was developed to aid farmers in making informed decisions at different stages during the season—from selecting the right variety of seed, to applying the right combination and dosage of fertilisers, to treating the crops with the right kind of insecticides and pesticides. In case of hardware design, we tried to ensure that the devices we invented did not require frequent charging. A smart bracelet we developed for pregnant women, able to detect and alert the user of high levels of carbon monoxide in the air, has a battery that can last as much as the duration of pregnancy—more than 10 months.

Development of content and customisation of information suitable for rural areas is necessary. As mentioned at the beginning, the primary need the internet is intended to meet is access to information. So, if the information we make available is readily accessible and useful to the population we are offering it to, they will certainly come back for more and we will see an organic growth in the demand for such services.

While there have been a lot of initiatives both from the private and public sectors to promote the use of internet and information technology in the rural Bangladesh, a lot more is still to be done. Services need to be made more accessible and useful to the rural population. Policymakers need to do their part in resolving the issues regarding the high cost and quality of services, by perhaps reviewing the fiscal policy related to telecommunication services and infrastructure in an attempt to reduce tax, and institute policies that ensure a certain level of quality for services offered in rural areas.

Generally, it is assumed that the population in rural areas does not have prior experience of using technologies such as the internet. If a service is offered to them that they find too abstract or vague, it is likely that the programme will not get much traction and fail to scale. Any programme or service designed for the rural population that utilises internet technology needs to be designed to be relevant, intuitive, and accessible enough for the population to understand and find the service useful.

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