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Introduction

In a country where about 90 million people do not have a mobile subscription, mobile network operators (MNOs) in

Bangladesh are continually looking for ways to attract new subscribers. Increasingly, MNOs are targeting untapped

segments of the market, such as rural women, through non-traditional channels. In this market, 93% of recurring

revenue comes from voice services, so MNOs have been seeking new revenue streams, such as VAS, to make up for

declining average revenue per user (ARPU).

This case study tells the story of BRAC Bangladesh, an NGO that partnered with mobile operator Robi Axiata, the

British Council and VAS aggregator Mobile Multimedia, to develop and launch an mLearning (mobile learning) VAS for

adolescent girls. Developed with the support of a GSMA Connected Women Innovation Fund grant, the service has

now been evaluated by the Connected Women team to assess the social benefits for adolescent girls in Bangladesh

(so far), the commercial benefits for Robi, and the potential future impact of the service. This case study reports on the

results of this evaluation, which was conducted two months after the service launched.

Author: Georgia Barrie

M&E design, methodology, and technical lead: Alexandra Tyers

Acknowledgements: Shireen Santosham and Claire Sibthorpe

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Executive summary

In 2014, BRAC, in partnership with mobile operator Robi Bangladesh, developed and launched a mobile learning (mLearning) service called Cholo Ingreji Shikhi. The service provides users with basic English language lessons through IVR and SMS at a charge of BDT 5 (about 6 US cents) for every 50 minutes of use. The commercial aim of the service was to increase mobile adoption among lower income adolescent girls rural areas and use the service fees to drive up ARPU. BRAC and Robi also hoped the service would support BRAC's Adolescent Development Programme (ADP) and improve the employment prospects of ADP's 300,000 participants.

The service was launched on 2 January 2015 and within six weeks (by 15 February), the service had received calls from 543 unique mobile numbers. Of those, 72 (13%) had gone on to complete the registration process. These figures are below target due to delays in training ADP peer leaders to subscribe new users to the service. Issues with the training programme also meant most of the peer leaders interviewed were using the service as a learning tool in their sessions, but not actively encouraging club members to subscribe to the service themselves.

Although uptake of the service has been significantly lower than expected, analysis of the service usage data shows those who use the service tend to be quite active users. Six weeks after the service launched, the average total time each user spent on the service was 31 minutes, with the most active user spending almost four hours using the service. User testing with the target segment showed the majority of users considered the service content to be relevant and engaging.

The biggest challenge over the next 12 months will be driving uptake of the mLearning service. Improving the peer leader distribution channel through better training and incentives will be vital to ensuring the 300,000 ADP club members are aware of the service and encouraged to subscribe. Currently, the entire course lasts about three hours if the user does not repeat any of the content. This content will need to be expanded so users can keep using the service after they have completed the initial lessons. Finally, to implement the project efficiently and effectively, partners will need to align a diverse set of objectives, clearly distinguish their roles and responsibilities, and make the investment of each partner in the service more transparent.

Country context

With a population of 159 million and a GNI per capita of \$900, Bangladesh is the most populous low-income country in the world. It is a predominantly rural nation with 66% of the



population residing in rural areas, and the remaining 34% concentrated in cities, including the capital Dhaka, the most densely populated urban area in the world. About a third of the population live in poverty (on less than \$2 a day) and it is estimated 85% of those in poverty are from rural areas.¹



Despite being a low-income country, Bangladesh has made economic progress in recent years. GDP has been growing 6% a year on average for the last 10 years, reaching about US\$ 130 billion in 2013. This growth has been driven by a greater share of the global

textile and garments market, remittances from Bangladeshis working outside the country, and significant improvements in agricultural productivity.

Bangladesh has made considerable progress across many human and social development indicators, as well., The

number of people living in poverty declined by 26% between 2000 and 2010. Access to health and education services is one area in which Bangladesh has made particularly impressive gains. Life expectancy rose by 10 years between 1990 and 2010, in part due to significant reductions in child, infant and maternal mortality, and the youth literacy rate has increased by over 30 percentage points in the same period. However, with a growing population and multiple natural disasters, Bangladesh

"Bangladesh has an impressive track record for growth and development, aspiring to be a middle-income country by its 50th birthday."

SRI LANKA

- World Bank

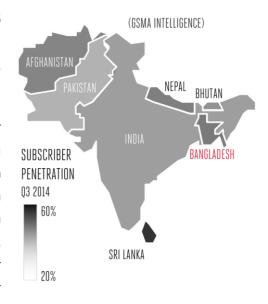
¹ World Bank

still faces considerable challenges in attaining food security, reducing income inequality, and increasing the economic participation of women.

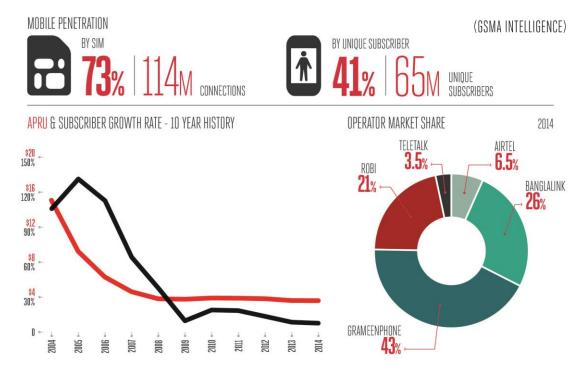
The mobile market in Bangladesh

Bangladesh is the tenth largest mobile market in the world with 65 million unique mobile subscribers. Unique subscriber penetration is high compared to other low- and middle-income countries, growing from 1% to 41% in the last 10 years.

However, Bangladesh has one of the lowest average revenue per user (ARPU) in the world at just \$2, a figure that has been in sharp decline since 2001 when it was \$30. One reason is an increase in the number of prepaid subscribers, which has grown from 62% of connections in 2001 to 97% today. Another has been greater competition with the entry of new MNOs to the market, such as Airtel. Intense competition has had clear benefits for consumers, including falling mobile phone prices and greater



network coverage. The effective price per minute has fallen from 12 cents in 2002 to just 1 cent, and today nearly 100% of the population in Bangladesh is covered by a mobile network.



Of the 90 million people in Bangladesh currently without a mobile subscription, it is forecasted that 15 million will subscribe to mobile services by 2020. However, ARPU is expected to continue to decline, as the majority of new subscribers will be low-income prepaid customers from rural areas. Bangladesh is still a market dominated by voice,

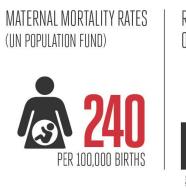
with 93% of recurring revenue coming from voice services — one of the highest proportions in the world. Non-voice value-added services (VAS) account for only 3% of recurring revenue for MNOs.

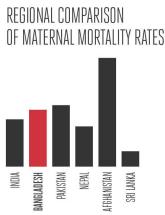
Women in Bangladesh

Bangladesh remains a largely patriarchal society where a woman's role is typically as a wife and mother. While the practice of child marriage has declined in Bangladesh over the last 30 years, it remains common

WOMEN IN BANGLADESH (WORLD BANK) FEMALE LABOUR FORCE PARTICIPATION RATES LITERACY RATES (OVER 15) 50% \$62% male

in rural areas and urban slums, especially amongst the poor. Three-quarters of women aged 20–49 today were married before they were 18 and a third had given birth by the time they turned 20. The stronger presence of women in the political sphere has had an important impact on the family structure, however. Many gender norms remain, but society is moving away from the traditional view that women are an economic liability and sons are more desirable than daughters.





Education is one area in which Bangladesh has narrowed the gender gap. Within the younger generation, female literacy (82%) is higher than male literacy (78%), and today 103 girls are enrolled in primary education for every 100 boys. However, the participation rate of women in the labour force remains low (36% of women are employed compared to 83% of men), primarily due to a lack of opportunities for

women in the non-agricultural sector. One of the largest non-agricultural employers of women is the Ready-Made Garment (RMG) sector, where it is estimated that over 80% of workers are female. However, low pay and poor working

conditions in this industry present significant challenges for working women.

Considerable improvements have been made to the status of Bangladeshi women since independence in 1971, but there are still many issues to be addressed: the prevalence of child marriage and pregnancy, the poor wage and safety conditions in female-

"Fundamental changes will not happen if the social status of girls and women in Bangladeshi society is not radically improved." 2

- UNICEF

dominated industries, and traditional patriarchal attitudes towards women.2

Mobile adoption for adolescent girls in Bangladesh: Key barriers and challenges

Cost

Although Bangladesh is one of lowest-cost mobile markets in the world, accessing funds to purchase a handset and airtime is a challenge for many women. Those living in lower income rural parts of Bangladesh often have little autonomy over finances, with male family members making many of the household purchasing decisions. It is therefore common for a woman's adoption of mobile to depend on a male family member seeing the value of them owning a handset. Rural poverty means many households have very limited disposable income, so women are often encouraged to borrow another family member's handset rather than having one of their own.

"I earn a little money through tutoring...that way I can manage my money and do not have to ask for it from my parents."

Adolescent girl, Tangail

Social norms

Strong patriarchal norms in Bangladesh mean that many women, particularly in rural areas, are given very little autonomy. Focus group discussions revealed some Bangladeshi men are opposed to their wives or daughters owning a mobile because of the greater independence mobile ownership brings. Young unmarried women are most affected since they typically have the least amount of autonomy within the traditional family. Of particular concern was the risk of young female family members using a mobile to communicate with men without the family's knowledge.

Security and harassment

Focus group discussions with adolescent girls exposed a real fear of falling victim to harassment by men through their mobile. Harassment poses a threat not only to women's safety, but also to their reputation if they are believed to be encouraging male attention. Although many of the girls wanted to own a mobile despite these fears, interviews with family members revealed they were often very uncomfortable allowing younger women in the family to own or use a mobile phone.

"Nowadays girls are falling victim to sexual abuse by the boys frequently."

- Adolescent girl, Manikganj

² A perspective on gender equality in Bangladesh, UNICEF

Overview of service

Market opportunity

In a country where approximately 90 million people do not have a mobile subscription, MNOs in Bangladesh are continually looking for ways to attract new subscribers. Increasingly, MNOs are targeting untapped segments of the market, such as rural women, through non-traditional channels. As MNOs increase their share of low-income users, it will become important to find new revenue streams, such as value-added services (VAS), to make up for declining ARPU. There are a number of VAS in the market, but most of the large-scale ones are entertainment services. However, the success of NGO-led services, such as maternal health VAS Aponjon, have shown low-income consumers are willing to pay for life-enhancing mobile services and enabled NGOs to reach rural populations.

Bangladesh-based BRAC is the largest development organisation in the world, with a reach extending to every village in the country. By partnering with Robi, the third largest MNO in Bangladesh, BRAC saw an opportunity to develop a subscription-based, life-enhancing mobile service that would reach more young rural women. This partnership would improve the service BRAC provides to its beneficiaries while also providing Robi with a new revenue stream and a new channel through which to access an underserved segment of the population.

Figure 1. Identifying the market opportunity

CHALLENGES

Young rural women are difficult to reach through usual marketing and distribution channels

ARPU among lower-income segments is low and declining

Social norms often prevent young women from owning a SIM and handset

SOLUTIONS

Partner with an NGO that has a strong network of young rural women

Develop an affordable VAS that adds real value to users' lives

Develop a VAS that will encourage rural households to see the value in their daughters owning a mobile

SERVICE CONCEPT

A simple and easy to use mLearning service tailored for rural adolescent women

Use BRAC network of ADP clubs as distribution channel and train club facilitators (peer leaders) to sell Robi SIMs and subscribe club members to the service

The Adolescent Development Programme (ADP) is one of BRAC's signature programmes, providing education, life skills, and livelihood training to rural adolescents, primarily girls. Today BRAC has over 8,000 ADP after-school clubs, each comprised of 25-35 adolescents and facilitated by peer leaders. English language learning is a major focus of the clubs due to typically low-quality English teaching in schools and the need for English in many skilled occupations. BRAC saw an opportunity to supplement ADP's English language teaching with a mobile English language

"One needs the help from another person who skilled in English...some can access this 'another person' while others cannot" - ADP club member, Tangail

learning service that was geared towards employment and livelihood opportunities for users. BRAC also saw an opportunity to train ADP peer leaders as mobile agents, building a distribution network for the service while also providing peer leaders with a source of income.

Partnership |

In addition to receiving funding and advisory support from GSMA Connected Women, BRAC engaged three partners on the project: mobile operator Robi Axiata, the British Council, and VAS aggregator Mobile Multimedia.

Figure 2. Roles of partners



- Project management
- Proposition development
- Distribution channel
- Training of peer leaders



- Proposition development
- Marketing
- Training of peer leaders



- Proposition development
- Content development
- Training of trainers



- User testing
- Technical integration
- · Tracking of usage data

Service concept

The service is designed to be accessible for users with no prior knowledge of English, as the target segment typically has very limited working knowledge of the language. By the end of the course, users are expected to have a basic understanding of everyday English vocabulary and phrases. While the course will not provide users with a high level of English, it is hoped the target segment will become more confident learning and speaking the language. There is also an opportunity for the partnership to develop more advanced modules if the course is well received.

The course is designed around 17 units, each of which has five lessons:

- Vocabulary: User hears and repeats basic vocabulary relating to the unit.
- Conversation: User hears the vocabulary used in conversation and is prompted to answer true or false
 questions using their keypad.
- Language extension: User hears an additional explanation of basic grammar or pronunciation relating to the lesson.
- Recording: User is prompted to answer questions or repeat phrases in English with their responses played back to them.
- Quiz: User takes a multiple choice quiz using buttons on the keypad.

Drawing from best practice in mLearning services, such as BBC Janala, the content was designed around four guiding principles: accessibility, interactivity, adaptation to the local context, and a focus on ICT.

Accessibility

As the target segment is adolescent girls from lower income rural households, the cost of a handset and airtime is a significant barrier to using any mobile service. The service was therefore designed to be IVR and SMS-based and accessible on even the most basic of handsets. Balancing affordability with commercial sustainability is a challenge for any service targeting lower income groups. However, unlike many other mLearning services that charge by the minute, the service offers a bundling pricing scheme. Users pay 5 BDT upfront for 50 minutes of usage, which is valid for seven days. While the upfront cost may be a barrier to trial, this pricing mechanism was chosen to encourage repeat usage, which is critical for any mLearning service.

Interactivity

The service is designed to have a number of interactive elements, including the ability to answer multiple choice questions via buttons on the keypad, record and play back answers, and repeat sections of the lesson. These elements are based on best practice techniques in mLearning, which have been employed by successful services such as BBC Janala.

Adaptation to the local context

To make the service more relevant and appealing to ADP club members, the content is carefully adapted to the rural Bangladeshi context. The service is narrated by a young female character who has a local name and uses phrases and terminology the target segment also uses. The narrator talks about her personal aspirations as a young Bangladeshi (drawn from interviews with young rural adolescents) to inspire users to see the long-term benefits of learning English.

A focus on ICT

Consumer insights research conducted by the partnership consortium showed one of the main motivations for ADP club members to learn English was improved employment prospects. Without English skills, many girls are limited to the agriculture or garment sectors and excluded from higher wage occupations. To make the service as appealing and useful as possible, it was decided the lessons would include a specific focus on language related to ICT. Many higher wage occupations require basic ICT skills that often depend on a working knowledge of English, and the ICT sector is a fast-growing and well-respected industry in Bangladesh.

Key challenges

Access to mobile phones is a key challenge for young rural girls. Of the 38 girls surveyed, 21 owned a mobile and 17 either used a family phone or had not had an opportunity to use one. Interviews with family members suggested that most parents were willing to let their daughters borrow a mobile phone for educational purposes. However, if parents are absent or using their mobile, this can be a significant barrier to usage for girls without a mobile of their own.

Poor quality network coverage is another challenge, particularly in rural areas of Bangladesh. This is a particular barrier for those using an IVR service since network quality needs to be high in order to hear and understand the content. Call dropping can also hamper the ability of users to register with the service and follow the structure of a lesson.

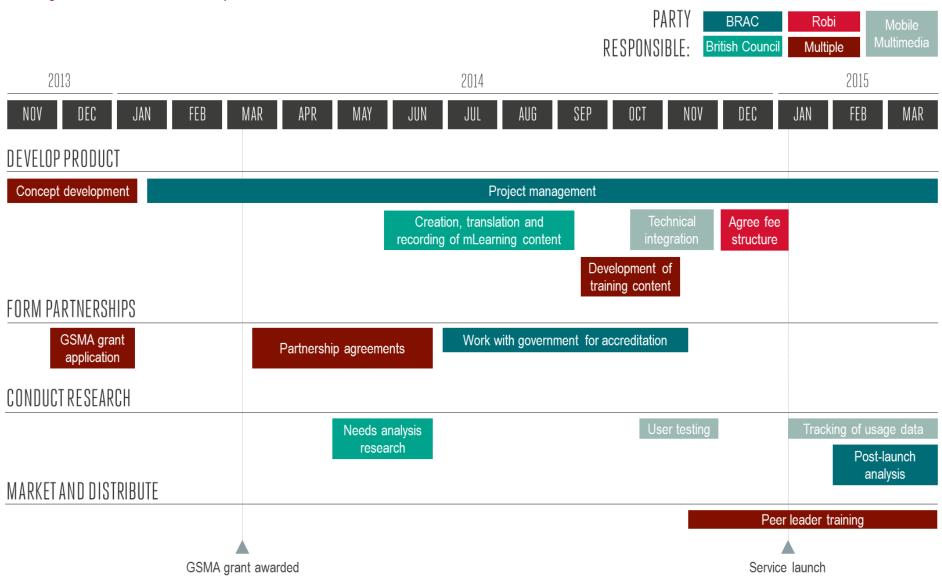
Young rural women are typically very difficult to reach with traditional above-the-line (ATL) and below-the-line (BTL) marketing channels. For this reason, Robi saw the BRAC distribution network as a way to tap into this hard-to-reach segment. However, raising awareness of the service amongst adolescent girls has proven challenging due to conflicts of interest amongst BRAC peer leaders.

Launching the service

Overview of the process

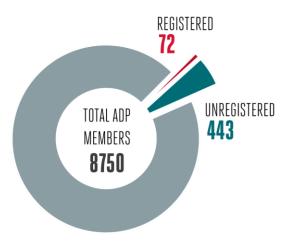
A timeline of the mLearning service, from concept stage to three months after launch, is shown in Figure 4. The time between the grant being awarded and the service launch was just under 10 months. Developing and launching the service required collaboration between four partners: BRAC, Robi, the British Council, and Mobile Multimedia. This was challenging both in terms of coordinating a large group of stakeholders and aligning a diverse set of aims and objectives. Partners had to work together in a number of areas, such as designing the peer leader training sessions, and these tasks sometimes took longer than originally planned due to miscommunication between partners or conflicting schedules. Management restructuring within Robi Bangladesh also caused some delays in the process, as decisions about the fee structure and marketing could not be taken until a new project manager was on board. For all these reasons, the service was launched about three months later than originally planned.

Figure 4. Timeline of service development



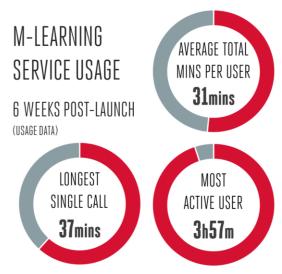
Results to date

Service uptake and usage

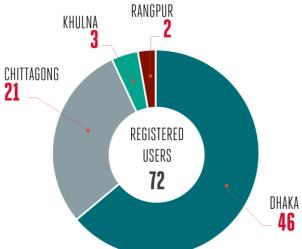


difficult to assess the long-term potential of the service and additional monitoring should be conducted as uptake grows.

According to the registration data, 46 registered users (64% of all registered users) live in Dhaka Division,



The post-launch assessment was conducted six weeks after the launch of the service, at which point 250 peer leaders had been trained as service distributors. Each peer leader manages an ADP group of approximately 35 adolescents, so the total ADP user base in the pilot areas was estimated at 8,750 adolescents. As of 15 February 2015 (six weeks after launch), the service had received calls from 543 unique mobile numbers (excluding test calls from the project partners). Of those, just 72 (13%) had gone on to complete the registration process. These low figures make it very



21 (29%) live in Chittagong Division, and a small number in Khulna and Rangpur Divisions. This is not surprising since these areas broadly correspond to the areas where peer leaders were trained. The majority of registered users (79%) are 17, 18, or 19 years old and the rest are between 13 and 16.

If listened to without interruption, the mLearning unit lasts approximately 300 minutes. Analysis of service usage data shows that six weeks after launch, the average total time spent by each user was 31 minutes and the average user heard approximately 10% of the content. A more detailed analysis of usage data was not possible due to the small sample size and the brief period in which the service had been live. However, a full analysis can be conducted in future to segment the user base and evaluate the level of engagement with the service.

Service distribution

A phone survey of the 72 registered users found that almost all were peer leaders. Interviews with peer leaders and ADP club members revealed peer leaders were using the service as a learning tool in the ADP sessions, but were not actively encouraging ADP club members to subscribe to the service themselves. Only one of the 18 ADP club members interviewed was aware she could subscribe to the service herself.

There are a number of reasons why peer leaders have not become active promoters of the mLearning service:

- Fear of becoming less relevant in ADP clubs: Peer leaders play an important role in ADP sessions, not only
 as facilitators, but also in teaching English language skills. Interviews with peer leaders highlighted a concern
 that the mLearning service threatens to diminish their value to the group, as ADP club members would have
 another way to learn English.
- Misunderstanding of the distributor role: Most of the peer leaders interviewed understood from the training
 that their primary responsibility was to use the mLearning service as a tool in their sessions. Many did not
 know they were also responsible for promoting the adoption of the mobile service to ADP members outside
 the sessions.
- Lack of targets or incentives: Without a clear target for recruiting new users to the service, peer leaders had not invested much time or effort in helping ADP club members register for the service.

Interviews with peer leaders also found they were not actively taking on the role of Robi retailer. While most had a clear understanding of how to sell airtime, many perceived the financial incentive for doing so to be relatively poor compared to the money earned running the ADP sessions.

Interviews with BRAC and Robi trainers found the peer leaders had not received any follow-up training in the six weeks after the service was launched. Budget and time constraints meant that BRAC planned to follow up with the peer leaders when they next attended

"I get 25 Tk as compensation from BRAC for taking every ADP session...that is more convenient to me."

- Peer leader

a scheduled training session, which occur every three to six months. Political instability in the few weeks after launch also restricted the field visits BRAC personnel could conduct.

Service design and content

In both pre-launch user testing and the post-launch assessment, prospective users rated the service design and content very highly. The interactive elements, such as the ability to record and play back your own voice, were rated particularly high by target users. The main criticism was that the mLearning content could be expanded to include areas such as grammar to complement users' English lessons at school.

"We did not feel like practicing English speaking before, but now I don't feel shy about it... it feels good when I can reply in English."

– Peer leader

"It is very easy... the lady voice in the phone speaks clearly and slowly for us to understand better... and we get to repeat with her whatever she teaches."

- ADP club member

Lessons learned

Improve the peer leader distribution channel

In both pre-launch user testing and the post-launch assessment, ADP club members saw the service as both affordable and valuable. However, uptake has been limited since peer leaders have used the service as a learning tool

"Unlike teachers or private tutors, this can be availed of anytime in a day...l can easily check things through this service."

- Peer leader

"If it could provide guidance for our curriculum... it would have helped us a great deal in doing better in school exams..."

- Peer leader

in their sessions, but not actively encouraged club members to subscribe to the service themselves. In fact, there is a disincentive to promote the service as it threatens the role of the peer leaders as English teachers in the ADP clubs.

In designing the service, the peer leader network was anticipated to be a low-cost and effective distribution channel. However, miscommunication in the training sessions and a lack of incentives prevented peer leaders from fulfilling this role. The following recommendations address these issues:

- In all future training, the peer leader's role as a promoter needs to be explained clearly and repeatedly.
- Peer leaders should set targets for subscribing ADP club members to the service and should have appropriate incentives to meet these targets.
- Nominate a BRAC official to follow up on the progress of peer leaders and provide support and advice for peer leaders to promote the service.
- Train peer leaders to sell Robi airtime as part of a larger training session on entrepreneurial skills. Explain the benefits of becoming a Robi retailer: skills and experience as well as a financial incentive.

Improve collaboration between partners

Coordinating the group of four stakeholders and aligning their diverse set of aims and objectives was a challenge when launching this service. Partners had to work together in a number of areas, such as designing the peer leader training sessions, and these tasks often took longer than originally planned due to miscommunication between partners or conflicting schedules. Decisions about the fee structure of the service, for example, were also delayed due to differing opinions on what constituted affordability and commercial viability.

To implement the project more efficiently and effectively, partners need to align their objectives, establish a clear division of roles and responsibilities, and make the investment of each partner in the service more transparent.

Build on service content

Although the mLearning content tested very well with prospective users, it will need to be expanded to retain users. User testing and the post-launch analysis showed prospective users saw a considerable opportunity to develop additional units, particularly ones on grammar, spelling and vocabulary, which are tested in school exams.

Conclusions

Mobile learning is still a relatively new area, but a growing body of evidence suggests it can be a valuable tool, particularly in areas where education is difficult to access or poor quality. However, the value of a mobile learning service is highly dependent on how well the service is designed and structured. This case highlights the complexities of developing useful and affordable mLearning content, and driving uptake at scale. There are four main recommendations for those seeking to design a mobile learning service:

- 1. Build on best practice: A significant amount of time and money has been invested in researching and developing best practices for mLearning, and services such as BBC Janala heavily informed the content and structure of the lessons in this service. Making the service accessible, interactive, adapted to the local context and delivered in the local language of the target segment, are all vital to ensuring users are engaged.
- Conduct user testing: Collecting and incorporating feedback from target users is imperative to developing a high-quality mLearning service. User testing should focus not only on the content of lessons, but also on the

- structure of the course and registration process. Conducting regular user testing before and after the service is designed is the only way to ensure it is useful and usable.
- 3. Track usage data: By collecting and regularly tracking usage data, it is possible to analyse the level of user engagement with the service and identify areas for improvement. Basic metrics to be tracked include the number of active users, average minutes per session, and average total minutes per user. However, a more detailed analysis could answer questions such as: What percentage of users successfully complete the course? How often do users repeat lessons and which are the most repeated? To what extent are users using the interactive features of the service?
- 4. Improve the distribution channel: Building on an existing distribution channel, such as an NGO network, can be an effective and affordable way to recruit users. However, it is essential to invest in proper training and incentives for distributors so they will support the rollout of the service.

The proliferation of new mobile English language services across low- and middle-income countries in recent years is beginning to prove the case that mLearning can be an effective tool. However, if services are to be affordable for lower income segments and profitable for MNOs, they must be able to reach scale. Building a strong distribution channel is therefore fundamental to the long-term sustainability of mLearning services.

About the GSMA

The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with more than 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and Internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, and the Mobile 360 Series conferences.

For more information, please visit the GSMA corporate website at: www.gsma.com Follow the GSMA on Twitter: @GSMA

About Mobile for Development – Serving the underserved through mobile

Mobile for Development brings together our mobile operator members, the wider mobile industry, and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social and economic impact and stimulate the development of scalable, life-enhancing mobile services.

For more information, please visit the GSMA M4D website at: http://www.gsma.com/mobilefordevelopment

About the GSMA Connected Women Programme

GSMA Connected Women works with partners to deliver socio-economic benefits to women and the broader mobile ecosystem through greater inclusion of women across the industry. The programme is focused on increasing women's access to and use of mobile phones and life-enhancing mobile services in developing markets, as well as closing the digital skills gender gap, attracting and retaining female talent, and encouraging female leadership in technology on a global basis.

For more information, please visit the GSMA Connected Women website at: www.gsma.com/connectedwomen Follow GSMA Connected Women on Twitter: @GSMAm4d #ConnectedWomen

The GSMA Connected Women Global Development Alliance is a programme in partnership with:





