mLearning

Shaping The Future – Realising the potential of informal learning through mobile

The MasterCard Foundation

Contents

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Foreword

In 2011, GSMA and The MasterCard Foundation began a research study to understand how mobile technology can help young people achieve their future aspirations. With a focus on Ghana, Morocco, Uganda and Maharashtra in India, GSMA researchers listened to more than 1,200 young people, whose experiences and perspectives shared in this report can help guide the future of the fast growing, but still nascent area of mLearning.

Young people are the future leaders, workers and citizens of this world. Yet, at this point in time, there are a record 75 million unemployed young people, and in developing countries, too many lack access to basic education and employment opportunities. There is an urgent need to find solutions that equip young people with the skills, knowledge and networks they need to achieve their ambitions.

Mobile technology is already playing an increasing role in addressing many development issues – such as providing access to banking, health information and agricultural services. The scale and ubiquity of mobile networks means they are often the only infrastructure in remote and rural areas. The mobile industry has shown innovative and sustainable approaches to using their networks to improve the lives of disadvantaged people.

GSMA and The MasterCard Foundation believe that a substantial, long-term development impact of mobile technology lies in education and learning for young people in developing countries and in connecting them to jobs. There is an increasing role for mobile technology in schools, but mLearning also has a unique role to play in reaching those who are outside the scope of traditional schooling, and who will benefit immensely from access to educational programmes. Likewise, mobile technology can also connect them to employers and help improve their job readiness skills.

If mLearning is to live up to this rich promise, it is crucial that it meets the real needs of young people. Organisations involved in developing and delivering mLearning services need to understand the day-to-day lives of young people if they are to create services that will improve education and employment prospects. Developing that understanding is the primary purpose of this report: *Shaping the Future*.

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Executive Summary

mLearning has a crucial role to play in improving the education and life prospects of young people in emerging markets. This report explores the day-to-day lives of young people and gives voice to their aspirations, employment and learning needs. It demonstrates that the time is right for the mobile industry, international development community and Governments to collaborate and create services that will have a profound, lifelong impact on the lives of young people.

The report has been structured into four main sections designed to be as insightful and reader-friendly as possible. These sections are briefly summarised below, along with key findings.

1. A profile of young lives in emerging markets

In this section the report aims to provide a snapshot view of the lives of the young people covered in the research. It explores the economic and social context in which they live, as well as their priorities, day-to-day experiences and concerns. It is only when these factors are better understood by both the mobile industry and the international development community that mLearning services will be created that are truly geared to young people's real needs.

Key findings:

- Education is one of the three biggest priorities in life for the young people surveyed, with 39% naming it as their key priority. Only family (named by 53%) and health (45%) were more important.

- A good career was a major priority for 30% of respondents – ranking above marriage or owning a home. However, for many a gulf existed between their aspirations and the education or skills they needed to achieve them: 39% said they needed to improve their skills to find better work.

2. Education and employment

The majority of the young people surveyed see education as the crucial foundation for a career which offers greater financial stability and an improved standard of living. This section explores which education and employment opportunities young people are most interested in, what sources of information they currently use, and what they perceive as the key barriers that stand between them and the future they hope for.

Key findings:

- Just one quarter of the young people surveyed named the classroom as their primary source of information and education, reflecting the fact that many young people had left formal education as well as the current limitations of mainstream education in these countries. Friends and family were more important as an information source, named by 41%, while 43% relied on TV.

- Word of mouth was also the primary source of information on employment opportunities: 36% of youths seek out friends and family for job information, far ahead of schools or job agencies.

- One in four young people said that the single largest barrier to accessing educational resources was lack of funds. In Ghana this number reached almost half of those surveyed. Mobile can deliver crucial educational content, but services must be affordable if they are to reach most young people.

3. Mobile life

Here the report explores how young people in the countries surveyed currently use their mobile phones and what services they access. By understanding how young people currently use mobile technology, stakeholders can ensure that mLearning services are built that fit easily into their existing habits and capabilities.

Key findings:

- Mobile is an established and increasingly important part of life for young people in emerging markets: 74% of mobile owners said that it was the number one asset they owned.
- Although smartphones and data enabled devices are beginning to make an impact in emerging markets, voice calls remain the most used and favoured service: 85% of young mobile users made voice calls every day, and 67% of respondents believed that calls would be the most desirable method for receiving content such as educational information.
- Of those youths who had accessed the Internet, 50% had done so via a mobile device. 60% of those who had not yet accessed the Internet were interested in doing so. Driving down the cost of smartphones and data to drive the uptake of mobile Internet services could help meet this appetite and generate richer mLearning services.

4. Shaping the future

Finally, the report explores the potential mLearning has to help young people achieve their ambitions for the future. It reports on the services that young people themselves would most like to use or see developed. It also provides some recommendations to the mobile industry and the international development community on steps that can be taken to create services which reach even geographically or socially isolated individuals. This section also includes a case study of mLearning in South Africa and explores what that country reveals about the challenges and opportunities ahead.

Key findings:

- 63% of youths surveyed believed that they could learn through even a basic mobile device. This enthusiasm increased when youths were actually shown mobile data and video content.
- 39% of respondents were most interested in mLearning services which would develop their professional skills, while 27% were most interested in language lessons.

Key recommendations for the mobile industry include:

- Linking mLearning services into existing behaviours, priorities and interests of young people, for example, through sport activities, music or informal social settings.
- Targeting whole families when advertising mLearning services, so that parental ‘gatekeepers’ see its value and can loan or invest in handsets.
- Incorporating advertising in mLearning services to drive down costs.
- Closer collaboration with governments, policy makers and the international development community to deliver employment information and opportunities through mLearning services.

Introduction

"We are isolated from modern life… The infrastructure is not that good and there are no professional schools. If you want any of that then you have to go to the city so that's why we don't finish our studies."

Young male research participant, rural Morocco

"In class, I sometimes record the lectures on my phone so I can listen to them later in case I forget or don't understand. I can use the calculator to help me with my maths. My favourite subjects are maths, science, history and economics. If you could get these on your mobile it would be good."

Young female research participant, rural India

The two quotes above illustrate the potential of mobile technology to improve access to learning and education in the developing world, giving young people a greater chance to pursue their ambitions and fulfil their potential. The young man from rural Morocco describes his frustration at the lack of resources available to him in pursuing his studies, a situation that millions like him face every day. The young woman from India, on the other hand, is already using her mobile in basic ways to support her studies, and sees the potential for even better educational services in the future.

Mobile technologies can play a crucial role in opening education up to young people who currently feel excluded. This usage of existing mobile technology to support informal learning – which we call mLearning, and which includes everything from simple voice-based language lessons to more sophisticated mobile Internet-based educational applications, all accessed through mobile handsets – is growing more widespread and advanced every day.

However, until this point there has been a lack of solid data around mLearning and its relationship to education, career development and entrepreneurship, making design and implementation of sustainable projects challenging. That is why GSMA's mLearning team, in partnership with The MasterCard Foundation, began the work which has resulted in this report, *Shaping the Future*.

In late 2011, researchers went into four very different emerging markets – Ghana, Morocco, India and Uganda – and asked 1,200 people (aged 15-24) about their day-to-day lives, their ambitions, their education, the way they use mobile now and how mobile could help them achieve their aspirations in the future. At the same time, over 250 young people from those countries took part in detailed focus group discussions where, with great generosity, they shared their hopes, worries and beliefs with us.

The primary goal of the research was to collect current and relevant data in the fast growing but still nascent area of mLearning, exploring its huge potential to support young people's education and career development. The findings are designed to be shared with and benefit all private and public sector organisations involved in the mLearning eco-system. It is intended that findings from the research will identify opportunities for the industry to develop tailored and sustainable mobile learning services that benefit underserved youth in developing countries.

In addition to this core research into young people's lives, the GSMA Development Fund spoke with industry experts from all four countries, and conducted further analysis in South Africa, a developing market where mLearning is further along the "adoption curve" than the four countries at the heart of our research. In South Africa, the team interviewed mobile operators, Government officials, educators, content developers and equipment manufacturers. Their task was to understand what was working well in the delivery of mLearning, what key challenges remained, and from these findings develop recommendations for operators and the international development community.

Relevant statistics from the quantitative research are used throughout the report alongside illustrative quotes from the qualitative research. A few case studies are also included to illustrate the very different situations, attitudes and educational needs of a few young people.

The research also explored different socio-economic conditions within countries, making a distinction between "underserved" and "severely underserved" young people. The **"severely underserved"** group includes 15-19 year olds who are not attending school, and are either seeking employment or working, as well as 20–24 year olds who are unemployed, seeking employment or working in non-professional, often informal jobs. **"Underserved"** young people also face challenges but have advantages that the severely underserved do not. They include 15-19 year olds who are studying, and 20-24 year olds who are either studying or working in professional jobs, often in the formal sector.

Researchers found that despite the huge differences in economic, cultural and social circumstances between the four countries, young people living in them had a great deal in common with each other, and indeed with young people from all over the world. Young people considered their families the most important thing in their lives, with education and a successful career considered almost as important. There were some strong regional differences which will be explored, but what was most striking was how many of the challenges and aspirations were shared.

It is GSMA's belief that mLearning can and will provide another valued source of educational information. mLearning cannot and should not replace classroom learning, but for those who may find it difficult to attend schools on a regular basis – either through physical inaccessibility or the need to earn money to support their families – mLearning could provide crucial educational support.

Section 1
A profile of young lives in emerging markets

"The poor are voiceless and no one tries to help them. The government doesn't help."

Young woman (aged 15 – 19), rural Morocco

"I live in freedom. Anything I want I can reach it. Anything that is in front of me…if we want to do something no one should stop us. I just want to live free and that's all. I believe in my freedom."

Young woman (aged 15 – 19), rural Morocco

As the two viewpoints above show, there are significant variations in attitudes and beliefs even among young people from the same background, so it is unsurprising that there is an even greater variety of perspectives and attitudes among young people across the four countries covered in this research. Nonetheless, this research confirmed that many of the young people who took part in the study shared many key experiences and beliefs, ones which suggest the potential mLearning has to improve their life prospects.

Daily life

The young people who participated in this research often came from large families, particularly those in rural areas. Almost one quarter lived in a household with six or more others, often sharing the same house with extended families, including grandparents, aunts and uncles.

Most youths in the four countries surveyed started their day early, often rising at 5am. They were expected to contribute actively to household duties such as cleaning, cooking and taking care of younger siblings. Many live at home with their parents and extended families until they are at least 24 years old. It was more common for males than females to assist family with work outside the home.

For young people still attending school, their journey usually took 30 minutes or more each way. This was not only a challenge in terms of time taken out of demanding schedules, but also presented a financial barrier for those having to pay for transport costs on a daily basis.

Those who attended boarding schools were usually away from the family home for months at a time. In India, the average student would study for around three hours per day in addition to schoolwork, often waking early to study before school as well as after.

It was rare for any of the young people who took part in the research – whether they lived at home, were employed or were a student - to be awake past 10pm. For those living in areas where electricity did not exist or was unreliable, several youths reported going to bed even earlier out of boredom or a lack of anything else to do.

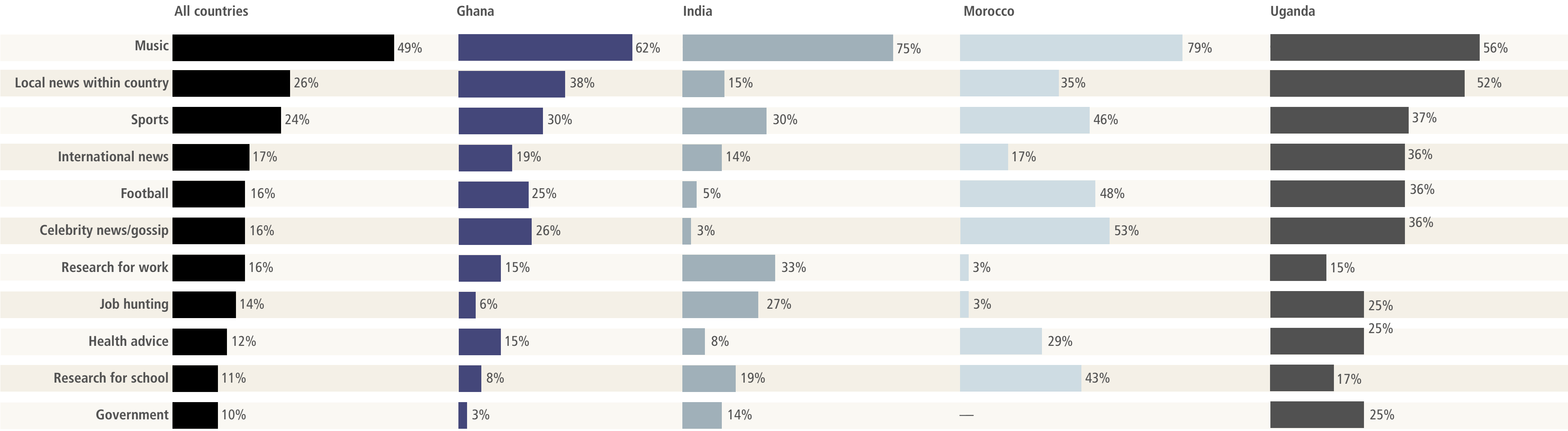
The daily lives of respondents often featured a high level of routine and repetition. The majority of young people's time was spent at home, work or school, with few opportunities to attend social events during the week. However, most youths would contact friends and family at least once a day via voice or SMS on their mobile.

Leisure time

The most common leisure activities for the study participants were listening to music, watching television/films or chatting to friends. 49% of the young people surveyed named music as one of the things they were most interested in, something they have in common with young people across the world. Listening to the radio, or downloading music was an important part of their lives.

Sport was also highly popular, named as a major interest by 24% of respondents. Playing sports was particularly popular with young men, with football common in Africa and cricket more widespread in India. Dancing was a common pastime for females, especially in India. Youths in India and Morocco generally spent more time socialising face-to-face with friends on weekends.

Most popular content for youths



In Uganda and Ghana, a majority of young people attended Church on Sundays, while Saturdays were mostly spent cleaning or doing washing. Singing gospel was a popular pastime. In Morocco, going to the gym and playing football were the most common hobbies for males.

Case study – Isaac.

Isaac is 15. He lives in Achimota, Greater Accra with his mother. His father left when he was just a young boy and his mother, Victoria, has since raised him on her own. Victoria has her own beauty salon where she relies on just a few clients each day, sometimes earning just 3GHS (USD1.80) for a day's work.

Isaac does not have a phone as his mother cannot afford one for him, although he is able to use hers on occasion. He sometimes travels to use an Internet café and has a Facebook account. When he goes online to chat with friends, he spends up to 30 minutes at a time chatting about maths and other things he has learnt at school. Isaac loves football and follows Manchester United. He is a keen student with a natural curiosity and thirst for knowledge. When he grows up, Isaac wants to be a meteorologist.

Isaac's story reveals some of the opportunities mLearning has to reach keen students like him. He does not have his own mobile phone but is able to access his mother's. In many cases the mobile industry will need to target the whole family when marketing mLearning services, so that parental "gatekeepers" see their value and are willing to loan their handsets for the purpose. If handsets and other costs can be made more affordable, mLearning may provide a strong motivator for Isaac and others like him to own directly. Similarly, there may be opportunities to link services with Isaac's interests, such as bundling mLearning with football updates in a package.

Community

Less than half of the youths surveyed were involved in "social groups" outside of school. In Ghana and Uganda, social groups were more common, helping to generate a strong sense of community spirit. These social groups were often led by the Church, although there were also many people who participated in volunteering projects to help deliver health advice or assistance to those in greater need. Praying is a daily activity in Uganda and Ghana, where Christianity is the dominant religion.

"I want to help others who have also suffered, specifically street children and school dropouts….if I can get a job."

Young woman (aged 15-19), Uganda.

By contrast, in rural Morocco many youths reported being disenchanted by the lack of community groups available in their community. One young 15-19 year old man from Morocco told researchers, ***"We want to [attend community groups] but there is nothing here. There was one but now it is closed – they said there is no instructor to work here so there is nothing here to belong to."***

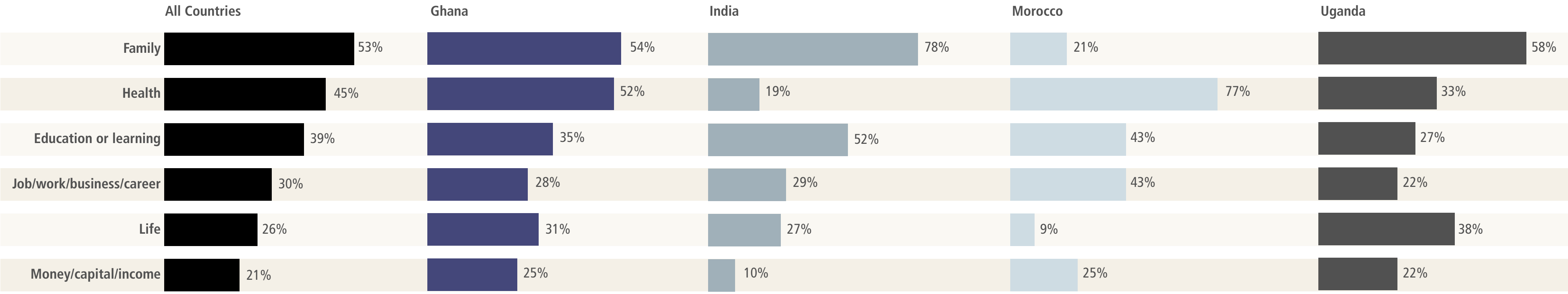
Priorities in life

One of the most revealing insights into anyone's life is discovering what their priorities are. GSMA's researchers spent a considerable amount of time asking the young participants in this study what mattered to them, in order to understand their motivations, hopes and concerns.

One thing was immediately striking – although there were many variations between the four countries in what young people considered to be their most pressing priorities, in almost all cases family was paramount. The exception was Morocco, where just 21% of respondents named the family as one of their three biggest priorities (compared to 78% in India.)

The second most important priority was health, named by 45% of respondents. This is unsurprising given that most of the countries in the research have health systems that are often inaccessible or patchy in quality, particularly in rural areas.

Things important in life



Education and learning was the third most important priority for our participants, named by 39% of respondents, closely followed by employment opportunities, named by 30%. These two are often inseparable: the chief motivation for being well educated was to achieve an improved livelihood and move from poverty into a better life. In total, 69% of young people thought that education and/or employment were a priority.

However, many youths feel unable to achieve their aspirations, primarily because they are unable to afford fees for education and training. Youths are also often required to forego studies in order to work and contribute to the household income instead. Among those who are already working, many end up in unskilled trades or employment primarily due to lack of education or qualifications. The report will focus on the links between poor education and lack of employment prospects in greater detail in **section 2 – education and employment**, and will go on to examine the potential mLearning has to break this vicious cycle.

Interestingly, financial gain was named as a priority by just one in five of the young people surveyed, suggesting that the security of a good job and the ability to generate a stable income were more important than wealth for its own sake. Happiness as a goal in itself also came low down the list of priorities, named by just 9% of young people. This reflects the fact that they often face more urgent concerns such as the need to find work and provide for their families.

Many of the young men who took part in the research named marriage and children as a key aspiration, along with a good job to support them. One young man from urban Morocco told researchers, ***"I want to get married and have stable position and have a wife. I want to study medicine to be a paediatrician, find good job and get my own house."***

When examining the different needs of the underserved and the severely underserved, it was clear that education or learning was considered less important by the severely underserved group. This may reflect the fact that many had given up hope of getting a good education due to the barriers that stood in their way. Just 20% of severely underserved young people named education or learning as a top 3 importance, compared to 45% of the underserved.

In some countries this "aspiration gap" was even higher: in Morocco 52% of underserved young people believed education to be a primary need, compared to just 10% of the severely underserved.

The severely underserved group was, however, more likely to treat good employment as a top 3 life goal. 35% of severely underserved young people named employment prospects, compared to 29% of underserved young people. This reflects the fact that many severely underserved young people are already in employment and looking to improve their position, or are unemployed and looking for work.

Values and concerns

Another key to understanding the lives of young people is to examine their outlook on life, what they value and what concerns them. In the focus group discussions, this topic provoked a great deal of discussion from participants, revealing many shared beliefs.

We have already seen how important family is to the young people surveyed. Although religion wasn't seen as such a pressing priority – just one in ten said that it was one of their three biggest life priorities – many did report in focus group discussions that they enjoyed going to Church and taking part in religious occasions. Having good friends and socialising were important to most of the young people who took part in the study, in common with young people across the world.

One thing which emerged particularly strongly in the more detailed discussions was how important freedom and the ability to make decisions for themselves was for young people from all four countries, perhaps a sign of growing maturity and independence. As one young woman, (aged 15-19), from rural Uganda told us: ***"I love my life because I am self-reliant able to make own decisions. I can support myself."***

When it came to more negative aspects of life, many admitted that they were concerned about conflicts within friendship groups and the community. 45% of the young people surveyed named health as one of their most pressing priorities. This was particularly true for young people from Uganda and Ghana, who reflected in focus group discussions on their fear about family deaths, and diseases such as HIV and AIDS. A fear of a life of poverty was a particular fear in Uganda, in both urban and rural groups.

Political problems, notably corruption, were identified as a challenge across all four countries. As one young man from rural India, (aged 15-19), told researchers: ***"I dislike corruption. Everything is expensive, it's hard to buy anything, people get ahead of you because you don't know the right people."***

Participants from African countries were concerned about deception and theft. In Ghana, cheats and dishonest people were looked down on, and "juju" or "sakawa" superstitions were widely acknowledged and feared. As one 19 year old male from Ghana told us, ***"I am a Christian and I don't believe in juju….but I stay away from it just in case."***

Theft was particularly high in Morocco and it was not uncommon for respondents to have been the victim of theft – with mobile phones being a prime target. Security features should be an important part of mobile operator's plans as they develop mLearning strategies.

Many of the young people also noted that infrastructure problems posed a major challenge to them in their day-to-day life. In urban Morocco the transport system was often problematic, creating real problems in getting to and from school or work. In Uganda, on the other hand, access to electricity was the most significant challenge: two in five people reported that they had no electricity or that it was unreliable. Ghanaian youths faced similar, though less severe, problems.

Role models

"I have no role model. Look at the system. All the big men have the money."

Young man (20-24), rural Ghana

Before exploring young people's attitudes towards education and working life in more detail, GSMA's researchers took some time to discuss the role models which shape those attitudes with young people from all four countries. The results showed interesting regional variations as well as some striking shared values.

In all four countries, parents and relatives were seen as the most important role models of all. As one young Moroccan man, (aged 20-24), said in focus group discussions, ***"My father is not well educated but worked hard and has still done a lot of things."*** A 15-24 year old woman from urban India was proud of her brother's achievements, saying ***"My brother is my role model. I have been living with him for a long time and he is the one who has pushed me to study and he has educated me. Whatever I am doing today is thanks to him. He supports me financially and emotionally."***

In Uganda and Ghana, parents and relatives were seen as the most important role models, but "Big Men" – rich, successful and powerful businessmen - were important influences on the lives of some young men. Religious figures in the community, such as local pastors, were well regarded in both Ghana and Uganda.

In India, Bollywood stars, famous cricket players and "rags to riches" success stories were often highly regarded role models. However, sheer hard work also was considered inspirational by many Indian youths who took part in focus group discussions. Strong and independent women were valued particularly highly by young girls, as reported by one participant from rural India: ***"My teacher is my inspiration because she is self-dependent and a strong person."***

Moroccan youths reported a mixture of relatives, successful professionals and celebrities as being among their role models, and often concentrated on the virtues of hard work and determination. One young 15-19 year old man told us ***"A very poor man lives just near and he still worked to finish his studies and then became an engineer."*** A young woman from urban Morocco said of her father: ***"he has a strong personality. He knows how to communicate and is self-made."***

Many of the values represented by the role models above – hard work, success against the odds and determination – are reflected in how young people feel about their future education and employment prospects, as explored in the next section.

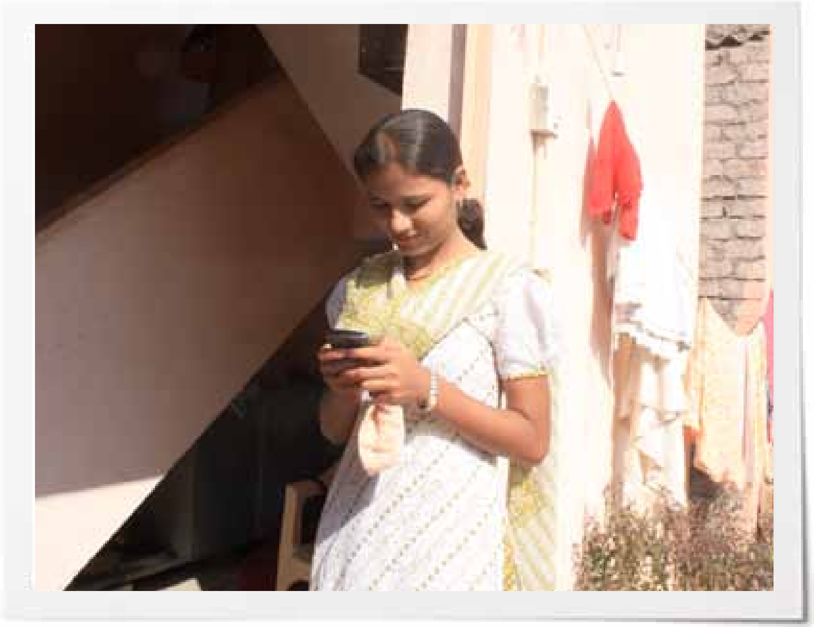
Implications for mLearning

The above snapshot of the lives of young people from across the four countries surveyed reveal many important implications for mLearning.

By understanding the daily events and leisure activities of youth, mLearning services can be designed that fit well with existing behaviours and interests. Linking mLearning to activities that are currently embedded in the lives of youths will have the strongest "immediate appeal" to young mobile users. One example might be mixing sports information with educational information: in a football game listened to on a mobile, for example, half time breaks could feature short educational lessons.

As has been shown, there are periods where many young people feel there is little to do, whether it is because of power cuts or because community groups are unavailable. There is an opportunity for mLearning services to be used during these quieter periods, providing a valuable educational supplement to classroom-based learning. As shown, mobile is already entrenched into the daily routines of most young people, and so there is likely to be a receptive audience for services which help young people achieve better futures. Future mLearning services will also need to consider the challenge of providing alternative charging solutions in countries where electricity supply is a major problem.

The research also shows that, as with young people across the world, young people in the four countries surveyed are eager to stay in contact with friends. Mobile services which help young people to connect with their peers are likely to be popular. There may be a powerful opportunity for mLearning services which bring young people together to socialise and also discuss their current lessons or homework.



Section 2
Education and employment

"My problem is just financial. My goal is to finish study and work as a policeman but if you don't plan from childhood it's hard to succeed."

Young woman (aged 15 – 19), rural Morocco

"I want to study leadership so I know how to help those in need."

Young woman (aged 15 – 24), Uganda

In common with young people across the world, those who took part in this study were greatly focused on their education and the employment prospects education could open up. Indeed, because of the precarious economic circumstances in which many live, these are probably more urgent concerns for them than for most of their fellow young people.

Education: opportunities and challenges

"Once you decide on something you make sure you do it. Everything you try and do there will be obstacles. You need knowledge in every field and you have to work hard."

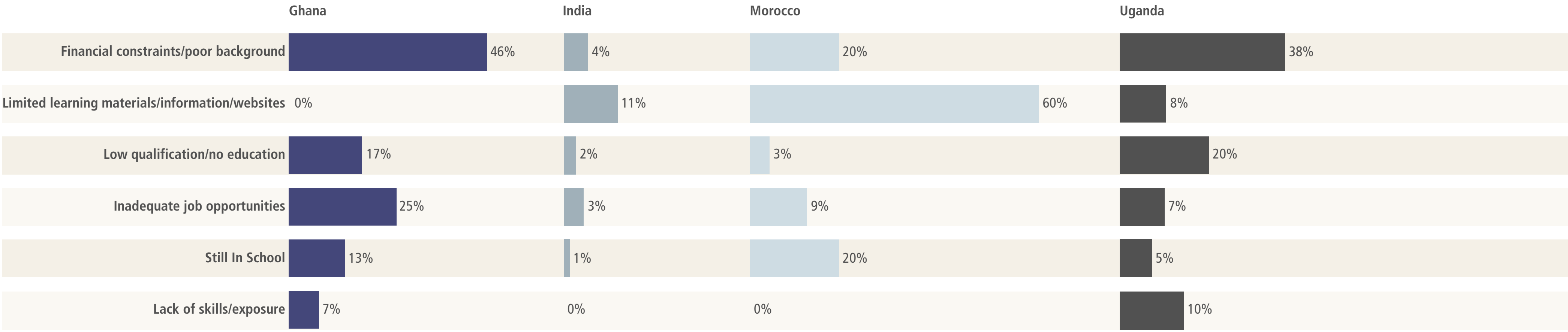
Young woman (aged 20-24), urban India

As the quote above suggests, for many young people education is seen as an essential step to achieving success and financial stability, and many are determined to study hard and achieve great things. As already noted, education and learning is one of the top 3 priorities for young people, ahead of financial gain, religion or marriage. It was particularly important in India, where 52% of survey respondents identified it as one of the three most important things in their life.

Other studies confirm that young people are right to place such value in education. When individuals have the chance to learn basic life and literacy skills, economies grow faster and poverty rates decline. As the Global Campaign for Education (GCE) has demonstrated, no country has ever achieved continuous and rapid economic growth without having at least 40% of its adults able to read and write. Even a single year of primary school increases the wages people earn later in life by 5-15% according to the GCE's 2011 report *Education for All: beating poverty, unlocking prosperity.*

Indeed, education can be a matter of life and death. As UNESCO found in its 2010 report *Education Counts*, a child born to a literate mother is 50% more likely to survive past the age of 5 years. Education is essential to improving health, halting the spread of HIV/AIDS and enabling families to better cope with illness.

Barriers to accessing information



Unfortunately, many young people are currently unable to access such education, primarily because they are unable to afford fees for education and training. Youths are also often required to forego studies in order to work and contribute to the household income instead.

Others felt deeply frustrated at the lack of resources available to support them in finding the right education. As one young woman (aged 20-24) from rural India told us, ***"For me [the problem is] financial and language problems. I don't understand English language and very few courses are held in Marathi. I'm not smart enough and I didn't get the grades. I needed the basic concepts."*** A young 15-19 year old Moroccan man told researchers, ***"Financial constraints prevail. You start from zero point."***

In rural areas especially, a lack of infrastructure or access proved to be major obstacles to success. As a young woman (15-24) from rural India said, explaining the difference between rural and urban education: ***"You get better knowledge in the city schools. Facilities they have elsewhere should be available in our village too. There is not sufficient sources to study here and not good guidance."***

Some experts reported that some young people found learning outside of a school environment difficult and demanding: as one NGO in Uganda told us, "People prefer to learn in communities in Uganda and not on their own." An independent consultant in Uganda said that even where education is available, resources are inadequate:

"Even University is just an extension of basic schooling. Often just blackboards and no enhanced learning facilities."

Independent Consultant, Uganda.

This did not mean that those people who had been unable to continue their studies were then dismissive of education. Indeed, of those who had "dropped out", many reported that they dreamed of returning to their studies to create a better future for themselves.

Employment: opportunities and challenges

"I want to become someone bigger. A Minister of Education!"

Young woman (aged 20 – 24), rural Ghana

"A lot of hurdles exist. We don't succeed."

Young man (aged 15 – 19), rural Morocco

Professional success and financial stability were the greatest aspirations for young people from across all four countries studied. Overall, 39% of respondents named this as a top 3 life priority.

A large proportion of respondents hoped to become professionals or successful in business, although specific career aspirations did vary significantly by region. These differences are important to understand, if mLearning services are to be designed which have appeal and relevance in each market.

In Morocco, accounting and economics were cited as particularly appealing career paths. Young people's "ideal jobs" included being a politician or civil servant, working in engineering or IT, or entering the medical profession.

In Uganda, politics, civil service, engineering or medicine were also seen as "ideal jobs". Accountancy was also a popular option, and a significant number were interested in working creatively, in fashion, culture or music. During focus group discussions, many young Ugandans told researchers that they would like to help those who were in worse circumstances than themselves. As one young woman (aged 20-24) from rural Uganda told us, ***"I'd like to have a job where I can help the needy people on the street."***

In Ghana, the most popular degrees were business administration and accounting, reflecting the fact that becoming a businessman, an accountant or working for a large corporation were seen by many as an "ideal job". Entrepreneurship was also a popular aspiration, as were politics, the civil service and the medical profession. Others aspired to being a sportsman, particularly in football, or working creatively in fashion, culture or music.

In India, many young people wanted to pursue business administration and finance, engineering or advertising, media and mass communications as degree courses. "Ideal jobs" were working in engineering or IT, becoming a politician or working in the civil service.

Although entrepreneurship was interesting to young people from all backgrounds, it was particularly appealing in rural areas, with many hoping to own their own business. One young man (aged 20-24) from rural Ghana told researchers ***"I want to be the biggest mechanic in Ghana."*** It is interesting to note, however, that many experts believe that poor education leads to many such businesses failing. One vendor in Uganda told researchers that ***"one of the reasons that 80% of small businesses fail is due to low financial literacy"***, demonstrating again how interlinked education and professional success remain even after a person has left formal education.

Some young people's aspirations lay overseas, a result of frustration at the lack of opportunities available to them in their own country. In Morocco, many youths dreamed of moving to America to study or work. One young man (aged 15-19) spoke for many others when he said ***"I want to get a diploma and win the American diversity lottery. I love our country but I would like to go to the USA."***

Unfortunately, although young people were highly ambitious, many lacked a clear plan on how to achieve their ambitions, and felt frustrated at the lack of resources available to help them. Financial constraints and lack of education were seen as the two main barriers to achieving professional success.

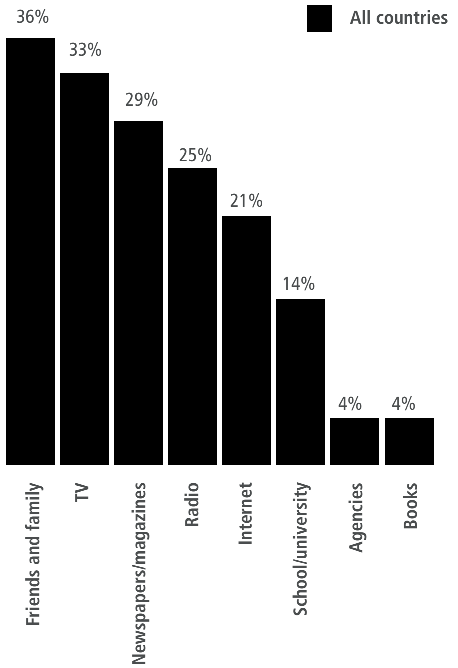
Many of the study participants reported that they did not know where to look for information on employment, although word of mouth was widely used. Parents, elder siblings and relatives were common sources of information for youths in terms of career advice – 36% of respondents said that friends and family were a main source of advice. 33% said that TV was their most reliable source of information on jobs, while 29% turned to newspapers and magazines.

Overall, 73% of the young people surveyed felt that they had insufficient information when it came to jobs. The severely underserved felt this more strongly (31% said they lacked enough job information) than the underserved group (26%), perhaps reflecting the fact that the underserved group are more likely to have "connections" that can lead to work.

Implications for mLearning

The potential for mLearning to close the gap between young people's ambitions and their access to educational opportunity is enormous. As shown above, many young people feel they currently have inadequate information. The mobile industry has an excellent opportunity to collaborate with Governments and the international development community on mLearning projects which plug this information gap.

Means of accessing job-related information



If relevant educational and employment information was available to young people through their mobile phones, they would be increasingly open to more sophisticated mLearning services. Even for those who have been forced to give up formal studies, mLearning could be one way of assisting them to achieve their ambitions to develop their knowledge and skills in the years ahead.

In all the countries surveyed, there is an opportunity for mLearning services which are linked to professional success to become popular, with messages adjusted according to the different realities of each market. mLearning services which support entrepreneurial skills, such as financial literacy or language lessons, will have particularly broad appeal, as will be explored in more detail in Section 4.

Case study - Kiwa

Kiwa is 24. He is a teacher at All Saints private primary school in Bulenga, Uganda. He lives on-site at the school and currently teaches P4 level, although is trained to teach all primary levels. He has also worked as a carpenter, is a photographer and in his spare time, he drives a bodaboda for extra money.

He has no children but would one day like some with his girlfriend Prose, who is currently studying accounting. He speaks to her most days on his mobile and sees her on weekends. He is from a big family of 18 and keeps close contact with many of his siblings. He would one day like to open up his own business supplying building materials to construction companies.

Kiwa's story is a reminder that many of the young people mLearning is seeking to reach are already in full time employment, but still have ambitions for the future. As a regular mobile user, mLearning certainly has the potential to reach Kiwa, but he will benefit most from services which help him develop entrepreneurial skills. Money is tight for Kiwa: offering free mLearning services paid for by mobile advertisements is something that many of the respondents to this survey said they would be interested in this.

Case study – Shada

Shada is 24. She lives with her father, mother and 3 brothers. So far none of them are married. Her father is a farmer and the sole income earner supporting the whole family. Her brothers are studying and she aspires to find a job in the field of IT, and has studied towards this. Shada has had many difficulties finding work.

Shada says, "I don't know companies and you don't know if they are looking at your CV. In schools they have a method showing how to write CVs and how to apply for training, not in all schools though, and then we face barriers because we don't know what the job market requires. There are not many job offers and all ask for experience. I would have to move to the city to get work in IT. I need to learn more things. I learn at school but just theoretical. I take books in the field of IT and try to read. Two to three times a week I go to the Internet café to search for jobs My phone does not have Internet but of course I would use Internet on my phone if I had it."

Shada's focus, like 39% of respondents, is on mLearning which leads directly to jobs. mLearning services which can help her with careers advice, including CV development and targeted job opportunities, would prove popular with young people like Shada. In addition, Shada cannot access Internet on her mobile but would be interested in using Internet-based mLearning services if she could: if affordability of Internet-capable mobile phones can be reduced, people like Shada are likely to be an enthusiastic new market.

Section 3
Mobile life

"The standard of living was different before mobiles. I'd feel incomplete [without one]... You're never alone with your phone. You can entertain yourself."

Young man, (aged 15-24), rural Ghana

In this section, we turn to how young people in the countries surveyed currently use mobile phones and what services they like to use. It is by understanding these existing behaviours that the mobile industry and international development community will be able to create mLearning services that will be most immediately useful to young people. It will also identify where new strategies are required to ensure that advanced services are available and understood.

Access to mobiles

Amongst the young people we surveyed across the four selected countries, 85% had access to a mobile phone or SIMcard. The highest level of access was found in Ghana, where this reached 90%, while Indian youths were the least able to access a mobile phone, at just 72%.

However, just because a young person is able to access a mobile phone doesn't mean they own one. One thing which became clear in focus group discussions was the variety of creative sharing arrangements in place. In Uganda many participants reported owning only a SIM and sharing an actual handset with others. As one young woman, (aged 15-19), in rural Uganda told researchers, ***"I share my phone with my sister. She has a SIM card and puts it in the phone to call her friends."***

Interestingly, there was no major difference between the severely underserved and underserved groups where mobile usage was concerned – access seemed to be evenly distributed across both groups.

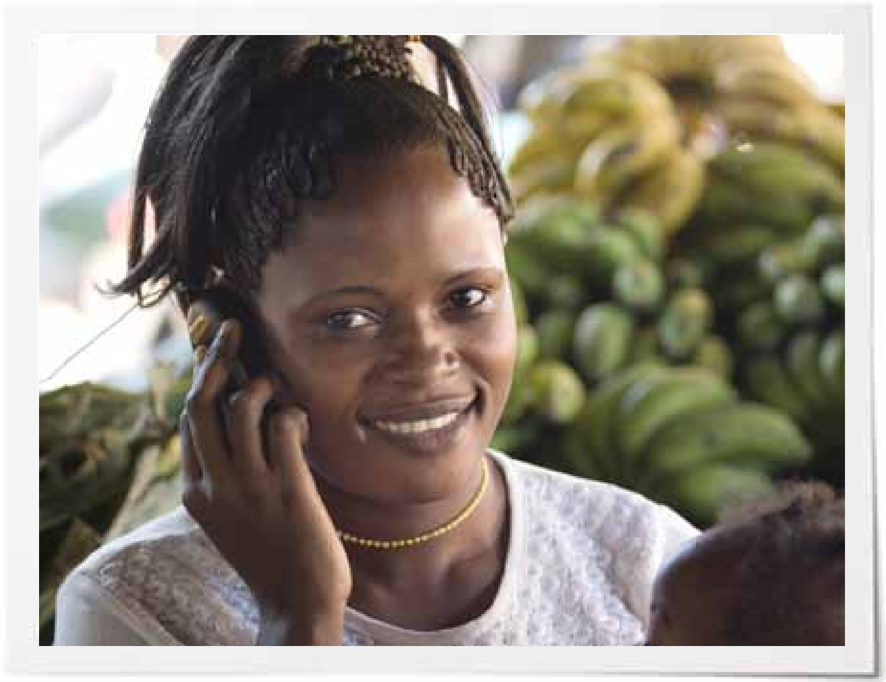
Barriers to ownership

Although most young people in the study had access to a mobile, the barriers to ownership for many of them should not be underestimated. The single most important obstacle was the cost of a handset, which was cited by 20% of those who did not have a phone. Clearly affordability will be an important issue to address as the mobile industry develops future mLearning services.

The second most important barrier was social in nature: the disapproval of a spouse or other members of the family was cited by 25% of respondents. Women were more likely to face this barrier, although it also varied between the countries surveyed: 14% of young people from Ghana cited this as a barrier, compared to 28% in Uganda.

Other countries faced more specific structural challenges to the growth of mobile, such as power cuts. As one vendor from Uganda told us, infrastructure problems are endemic, including but not limited to ***"constant power outages."*** He told us ***"Many of the issues are structural, such as infrastructure and roads. The government has placed a lot of focus on fixing the roads but now we need to solve the issue of energy."*** However, he did think some of these issues might be ***"relieved with mobile"*** in the future.

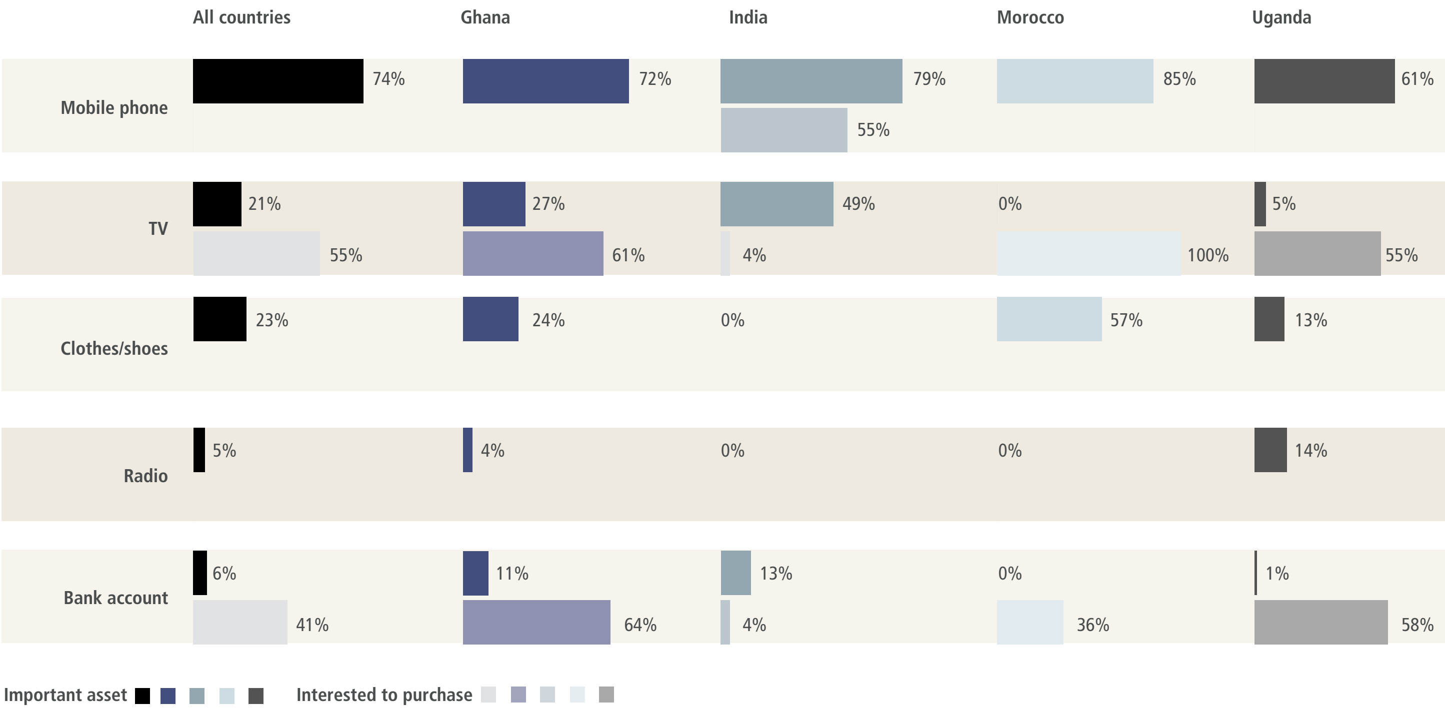
Finally, it should be recognised that there remains a minority who are yet to see the value of a mobile phone. 69% of Indian young people who did not own a mobile said this was because there was "no need", though just 10% of Moroccan youths felt the same. Clearly, there is a long way to go before these respondents are persuaded of the benefits of mobile in the most basic sense, let alone of mLearning services.



Reasons for not owning a phone among non-mobile owners

	Ghana	India	Morocco	Uganda
Handset costs too much	24%	13%	20%	21%
My family/spouse doesn't allow me	14%	25%	27%	28%
No need	10%	69%	57%	8%
Don't know how to use	10%	2%	0%	3%
Monthly service cost too expensive	0%	11%	0%	21%

Most important assets



Benefits of Mobiles

For those young people who did own a mobile, their pride was obvious when they were asked what their most important assets were: a huge 74% said that their mobile phone was one of their top three most important assets. Clothes and shoes came second at 23%, with television at 21%. This reflects not only how widespread mobiles are becoming in emerging markets, but how quickly they have come to be seen as an essential.

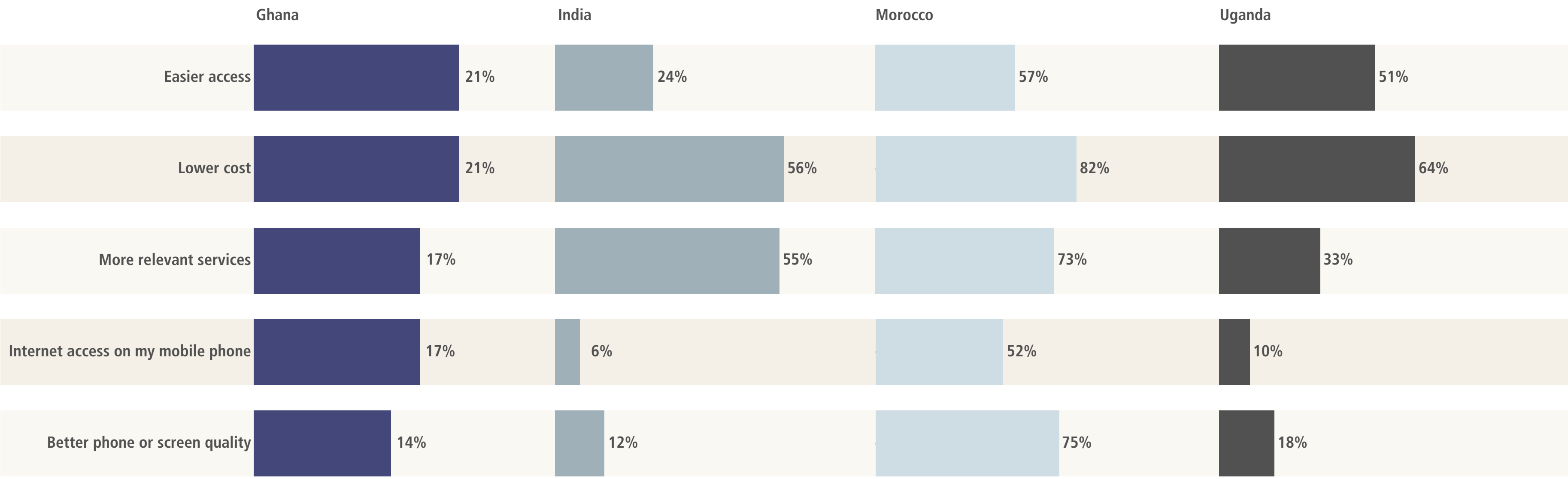
When asked about how they would feel without a phone, many of the young people in the study were distressed at the idea. One young woman from urban India said she would feel ***"like a body part has broken off. I'd feel bad. We can't chat and would miss friends. If there is an emergency, I would get tense. How can I contact people?"*** A young Moroccan man, (aged 15-24), agreed that it had become an essential: ***"It's impossible to get rid of it. If you are late and your parents call – you can't live without it. It's normal."***

Another young man (aged 15-24) and from urban Uganda, reported that ***"I'd miss SMS. I don't know what to do with my lectures. When I miss lectures I SMS friends."*** This demonstrates that mobiles are already being used to support education, suggesting that young people are likely to recognise the benefits of mLearning rapidly. This subject will be explored in more detail in **Section 4**.

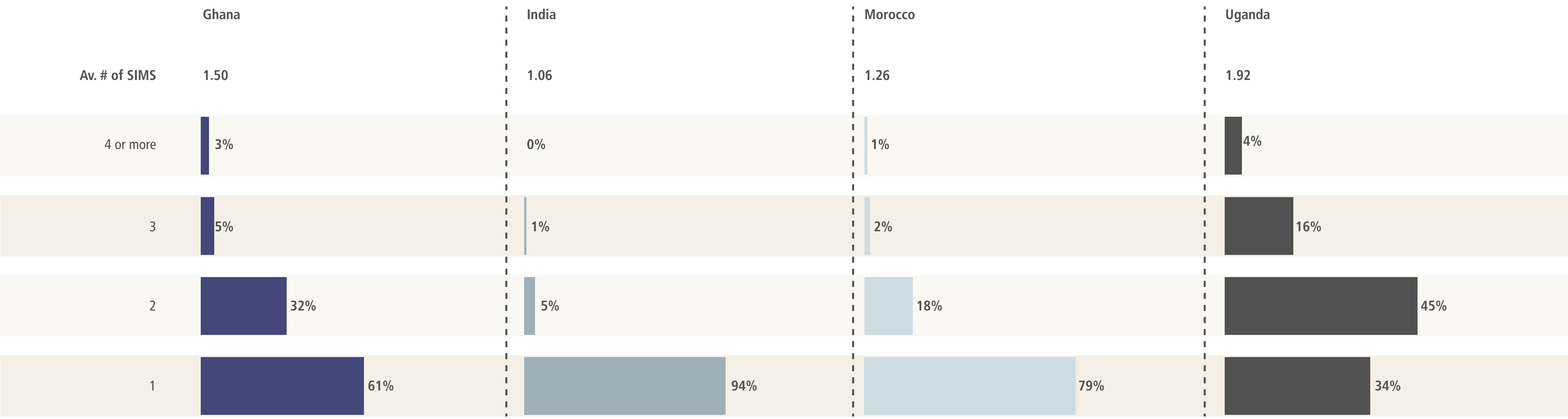
When young people who didn't currently own a mobile phone but wanted to in the future were asked why, many were motivated by simple access: 34% believed owning would cut out the access problems that come with sharing a handset. There were strong regional variants, however: 57% of young people from Morocco cited ease of access as the principle reason for owning a mobile phone, although this was less important in Ghana, where the number dropped to 21%.

Other things that would interest non-owners would be a better range of relevant services: this was named by 45%. Others were particularly interested in the idea of accessing the Internet through their phones, with strong regional variants: 52% of young Moroccan people named this as a reason for owning, compared to just 6% of Indian young people. Interestingly, there was no substantial difference between the severely underserved and underserved groups on this question.

Motivations for phone purchase (among non-mobile owners)



Number of SIMs Owned



SIM swapping

For those who did own a mobile or SIM the vast majority – 98% - of young people did this on a pre-paid basis, rather than a contract basis. The only minor exception to this was in India, where just under 1 in 20 had a post-paid contract.

Many youths had more than one SIM card. This was often due to pronounced price sensitivity, or difficulties with fluctuating coverage, where some networks were better in particular areas and other operators superior in others. In Uganda, the *average* number of SIMs owned by young people who used mobile phones was 1.92, but a remarkable one in five owned three SIMs or more.

Offering affordable and effective mLearning services may be one way mobile networks can increase a young person's use of their services and generate greater loyalty over time. The creation of valued learning services could help operators differentiate themselves from competitors, develop their brand, increase uptake and reduce churn.

Services used

Although data-enabled handsets, including smartphones, are becoming more widely available in emerging markets, they are still relatively rare. Even where such services are available, the majority of respondents showed a marked preference for the most basic functions – voicemails and SMS. For the time being at least, mLearning services which primarily utilise calling or SMS features are likely to be most popular.

Friends and family were communicated with on a daily basis via calls or SMS (63% of respondents said talking to friends was their primary purpose for calls), and many youths listed "chatting" as a regular pastime. It wasn't uncommon, especially among females, to spend 30 minutes per day on the phone to friends.

"Mobile money" services were often used by youths in Uganda but not seen as frequently in other countries. Youths were, however, aware of the functions available on their phone and regularly used them as a calendar, calculator or - most common of all – as a way of listening to music.

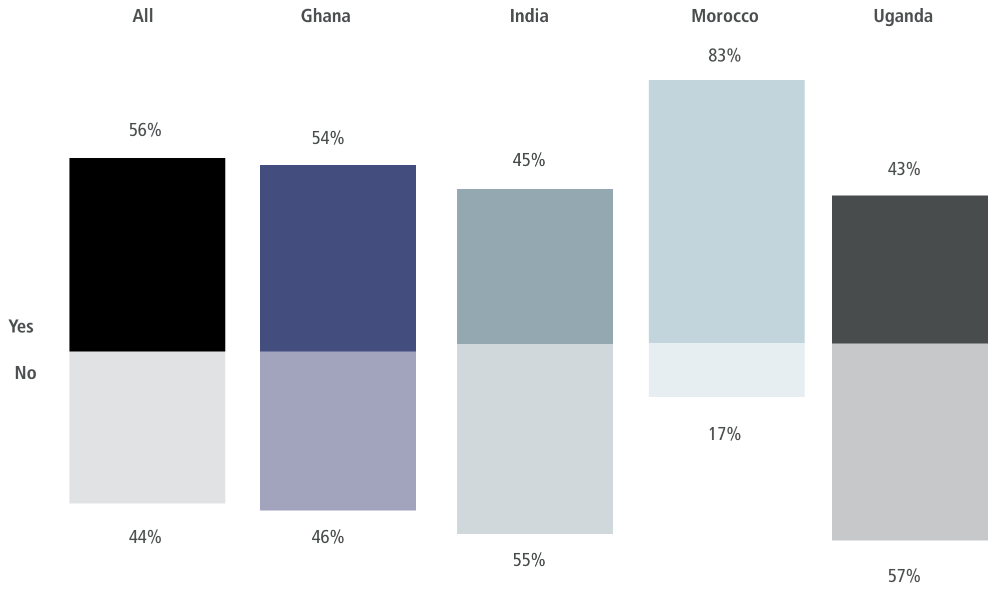
Mobiles and the Internet

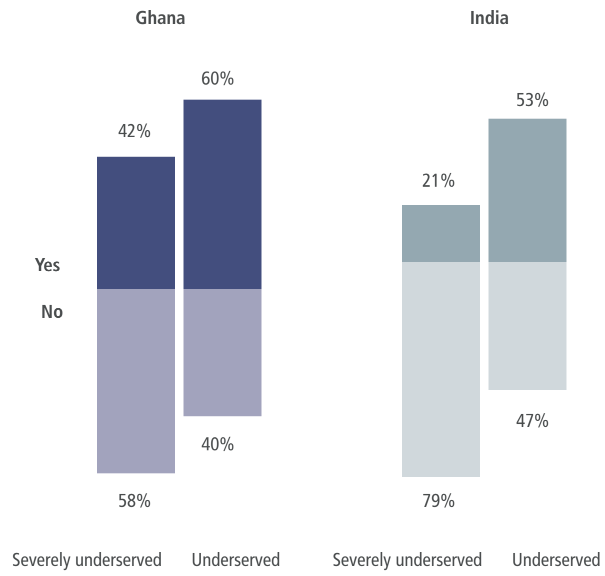
Mobile Internet use is on the increase, particularly in Ghana and Uganda, where one in five young people had gone online via mobile and most youths are aware of it, even if they haven't yet experienced it. Most youths in rural areas do not have direct access to the Internet but many can and do travel to cafés in order to get online. Facebook is well known across all four markets, with many urban and some rural youths having opened an account despite not being able to access it on a regular basis.

When it comes to material that young people were interested in downloading to their mobiles, music was easily the most popular, named by 70% of respondents. 35% were interested in celebrity news and gossip (in Morocco this rose to 88%), 28% were interested in job hunting and 23% interested in using it for research purposes.

It is important to recognise that there remains a large proportion of young people in the countries surveyed – 44% - who have not accessed the Internet at all. These young people will need to be given the opportunity to develop their familiarity with the Internet before they are ready to embrace sophisticated Internet-based mLearning services. However, 60% of those who hadn't used the Internet did say they would like to in the future. Clearly the appetite is there, even if the experience is not.

There were some marked differences between severely underserved and underserved young people when it came to Internet access. In Ghana, 60% of underserved young people had Internet access, compared to just 42% of the severely underserved. A similar gap was observed in India where 53% of underserved young people had Internet access, compared to just 21% of the severely underserved.





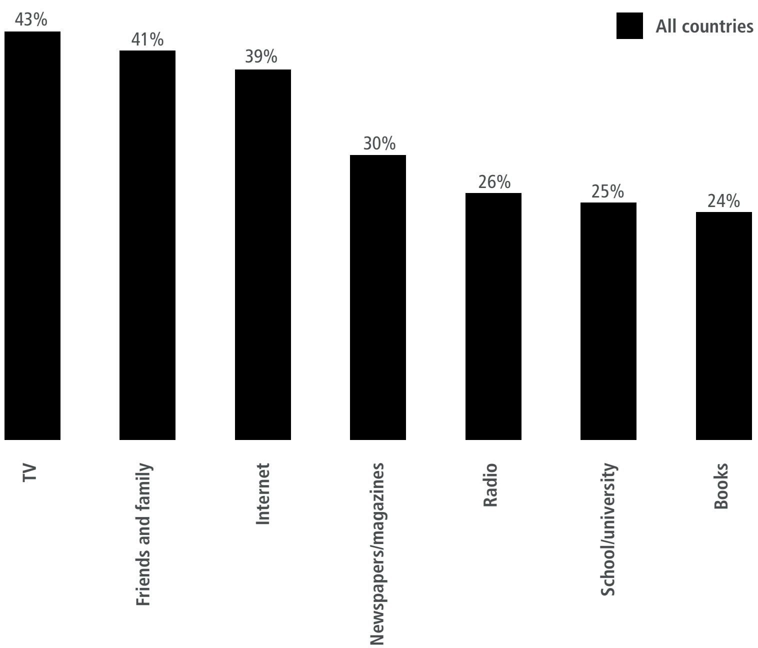
Section 4
The future of mLearning

Current sources of educational information

Before exploring attitudes towards mLearning in more detail it is important to recognise how young people in the countries surveyed currently access their educational information. What is most striking is the range of sources young people draw their information from, with no single source dominant.

The single largest source of educational information was television, which was used by 43% of respondents. Friends and family were a close second, at 41%, while the Internet was a favoured source for 39% of the young people surveyed. Schools and education were only the sixth most popular source of educational information overall, named by just 25% of respondents, reflecting the fact that many respondents had left formal education as well as the difficulties of accessing schools in many regions.

Means of accessing information for education



Benefits of mLearning

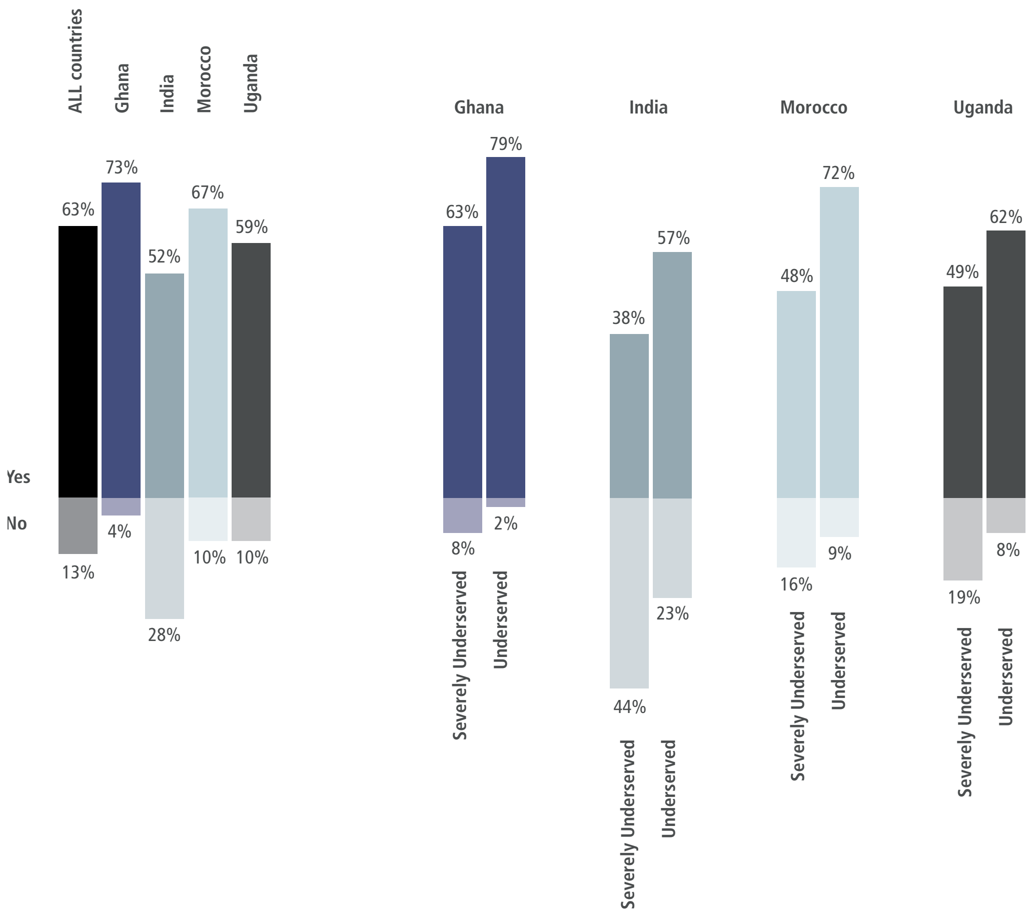
At this point, it is worth briefly revisiting some of the earlier findings in order to remember the potential benefits of mLearning.

Section 1 revealed how young people currently live their lives. It showed that by understanding the daily events and leisure activities of youth, mLearning services can be designed that fit well with existing behaviours and interests. One example might be delivering services which combine sports information with educational information.

Section 2 revealed the gap between the professional ambitions of young people and the opportunities and information available to them. mLearning can help to plug this gap rapidly if it is delivered in a way that fits in with mobile use patterns explored in Section 3.

In addition, our research found that 1 out of every 5 youths feel that there is a lack of learning services and information available to them. This may be why so many of them were positive about the concept of mLearning: a huge 63% said they could clearly see the potential to use their mobile for learning and accessing educational content. Only in India was there a little more scepticism, where just 52% of young people said they could envisage learning through their mobile.

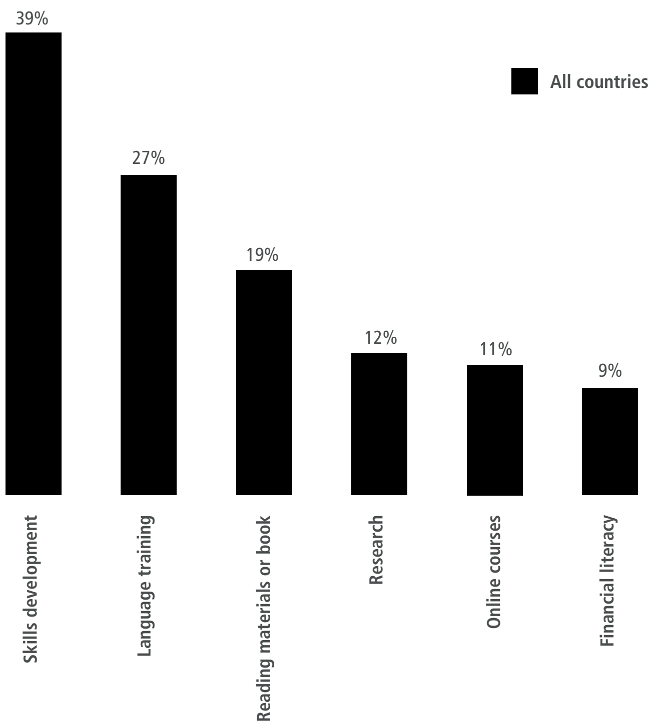
Perception on feasibility of mLearning



The chance to develop skills to improve their chances of getting a job or bettering their current employment situation were cited as a key potential benefit of mLearning by 39% of respondents. This was considered particularly important in Ghana (56% cited it) and Uganda (also 56%). Language lessons were also seen as highly useful, cited by 27% of respondents. This was especially true in India where this number rose to 50%. English was the most popular option as it was seen as the international language of business and success.

The third most potentially attractive mLearning service was accessing reading materials or books through mobile, named by 19% of respondents. Young people from Morocco were particularly interested in this option, with one in four naming it as an attractive service. Using mobile phones for research was considered of particular interest by 12% of respondents, followed by online courses (11%) and financial literacy (9%).

Attractive educational services



When it came to employment-related services young people would like to download on their mobiles, job hunting was the most popular option (named by 28% of respondents), followed by employer research (named by 23%) and local business information (13%).

Other potential benefits of mLearning were named by young people throughout the research. The ability to learn at a time of your choosing and while "on the go" was highly valued by many young people across the four countries surveyed, reflecting lives that often feature a great deal of travelling between school, home and work.

Others felt that mLearning would be able to deliver important savings, either in the form of money (providing learning that is cheaper than private schooling or tuition) or time (cutting down on long journeys to learning centres or schools). Both time and money are scarce commodities in many of the countries surveyed.

Others said they would enjoy the opportunity to learn anonymously (particularly those who lacked confidence in classroom-type environments) while others liked the fact they could repeatedly access the information/lessons, which would be valuable if they didn't understand first time. It became clear that young people could see benefits that even GSMA's researchers had not fully considered and that there was a great appetite for mLearning services.

Challenges for mLearning

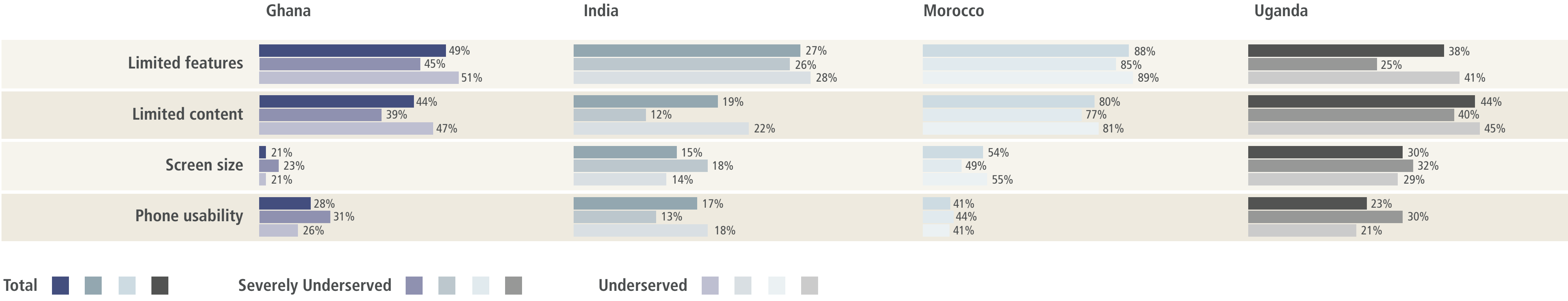
However, although there was a great deal of enthusiasm for potential mLearning services, there remain considerable challenges before mLearning can reach its full potential and reach the majority of those who stand to benefit. As a Ghanaian NGO told us, ***"One of the key factors in getting uptake of services is to look at the pricing strategy and people's willingness to pay. Remember that students have no income. Other things to consider are literacy levels, access and language."***

Many young people reported that they would only be able to access mLearning if costs were low, something that mobile operators and the international development community will need to keep in mind as they develop new services. However, many young people felt that mLearning would be valuable to them and said that they would be happy to receive adverts to their phone in exchange for more affordable services. This may point to a route of sustainability for low-cost mLearning services.

Another significant challenge is the fact that most young people currently use basic mobile phones, and 51% were concerned that mLearning would use images or videos which they wouldn't be able to view through their handsets. This varied by region: 88% of Moroccan young people were concerned about this problem, for example, perhaps reflecting the fact they were more likely to have seen more advanced services, compared to just 27% of respondents from India.

Other young people felt that more complex and/or visual subjects, such as science, would be difficult to learn via mobile. This is one of the reasons mLearning is best explored as a supplement to and not a replacement for classroom learning. Others were concerned about battery life, a real concern in areas where electricity supply is patchy and prone to cuts.

Barriers to mLearning



The research also found that although many local telecoms experts and people within Government or NGOs were extremely positive about mLearning, others were more sceptical. An example of a supporter included the representative from Ghana's Ministry of Education who said ***"I believe in the power of mobile and we are open to it. It's just down to funding."*** An example of a sceptic included a telecoms expert in Uganda who was concerned that without a strong push towards the uptake of mobile Internet, mLearning services would be too simplistic to engage learners and deliver content that was of benefit.

A few commentators questioned whether mLearning services would be as popular with students in practice as in theory. A Moroccan telecoms expert said ***"Moroccan youth are different. They are not motivated. You may need to reassess your idea. They won't want to learn on a mobile when they could be playing games on it or calling friends."***

Opinions like this within the mobile industry could result in a lack of commitment to mLearning and an unwillingness to support the development of new services. Our researchers found that young people themselves were generally much more positive, something reflected by the popularity of services such as BBC Media Action's Janala, which delivers English lessons through mobile phones in Bangladesh. By December 2011, 9 million lessons had been downloaded through this service. Part of the purpose of this report is to champion the creation of new services like Janala and to challenge sceptical attitudes within the mobile industry.

One mLearning contractor doubtless spoke for many others when he explained that international development organisations could see the potential of utilising mobile technologies but didn't know where to start: ***"Organisations do see the benefit of utilising mobile and digital technology, especially for mass reach in developing nations – but they have no concept of how to go about engaging these mediums. Thankfully we are at a point now that research has indicated the prevalence of mobile penetration – and there is an understanding that to reach mass market for 'systemic change' one must include these technologies in the mix."***

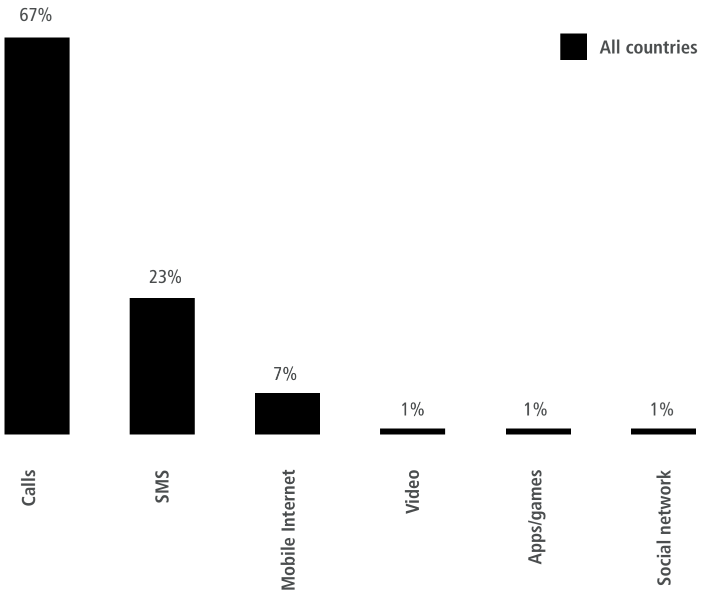
Delivering mLearning

"We need to start a market shift and move people away from voice and SMS onto data. People are moving away from wanting a torch on their handset onto wanting Facebook."

– MNO, Ghana

The above is an industry view of what is needed to make mLearning fulfil its potential. It is indeed true that many young people still prefer more basic services, and efforts to deliver mLearning through the Internet will need to be accompanied by greater education. 67% of young people said that they prefer to receive services through calls, and 23% by SMS. Just 7% thought that Internet-based mobile services would be a better option.

Preferred delivery method of accessing service on phone



Many respondents were also clear that user-friendliness would be the key to success, so content should be delivered in local languages and navigation through the services should be simplified. They also said that helplines or other feedback mechanisms would be useful to support the user.

Another important key to success will be motivating the students of the future to use mLearning, experts and young people agreed. One mobile operator in India said, ***"The youth need to be motivated to learn; there needs to be an incentive. We have used Bollywood actors to capture the youth market. It was a good strategy that worked well and they are often willing to donate their time for good causes."*** Young people also stressed the need for services to be entertaining or interesting. Others said that one of the best ways to motivate people would be to provide certificates or other incentives for completing courses.

In section 1, we also found that many young people placed particular importance on their sense of freedom and ability to live their lives as they chose. When marketing mLearning services, operators or NGOs may want to consider focusing on messages about autonomy and independence, as they are likely to resonate with many of the young people surveyed.

Of course, the most powerful incentive of all will be when young people are able to see the real impact of mLearning on the education, employment prospects and lives of people around them.

Case study – Usha.

Usha is 16 and lives in Uruli Kanchan, almost 200km outside of Mumbai, India. She has no father and lives with her younger brother, supported only by their mother, who works in a beauty parlour. She has three sisters who are all married and work as farmers.

Usha says, "In class, I sometimes record the lectures on my phone so I can listen to them later in case I forget or don't understand. I can use the calculator to help me with my maths. My favourite subjects are maths, science, history and economics. If you could get these on your mobile it would be good. Currently I listen to the radio and music on phone to pass time. I like rock music. But if I could get more knowledge and learn English on my mobile, I would do that instead of listening to music. This would help me to become a Chartered Accountant. I like to learn."

Usha's story reveals just how many opportunities there are for mobile operators looking to reach young people with mLearning services. Usha is already a regular and skilled mobile user and has a broad range of educational interests: language learning services, mathematics services and history services are all of interest to her, allowing her to use her time to fulfil her ambitions rather than just "pass it". She would clearly benefit from sophisticated, Internet-based mLearning services as well as more basic ones, showing the full range of possibilities for mLearning.

mLearning in action – South Africa case study

In addition to conducting research into the attitudes of young people themselves, and exploring the potential of mLearning to help them fulfil their ambitions, GSMA Development Fund took a closer look at the situation in South Africa, an emerging market which is "further along" the road towards mLearning.

30 million of South Africa's 50 million population own mobile phones, providing an ideal test bed for innovative mobile services. The team reviewed several mLearning projects, all at different stages, providing an excellent opportunity to see what had worked for those projects and what barriers they had encountered. The most widespread mLearning services either supported high school students to develop numeracy skills or provided employment services for underserved young people. Of 10 million young people, 250,000 used mLearning services: a solid start but one which shows a huge potential for future growth.

The team first spoke to educators and identified some of the key challenges with the existing education system. Education quality was undermined by high teacher absenteeism and inadequate training for teachers in key skills such as literacy and numeracy. Higher education was often inaccessible due to high fees, but standards were often low and provided few opportunities for workforce training. This contributed to the fact that although there are more than 800,000 vacancies in the private sector, half of 18-24 year olds are unemployed: employers comment on lack of qualified talent. Although these findings are based on research in South Africa, many of them are mirrored in the other countries surveyed in this report.

The team found strong evidence that mLearning can help to tackle some of these challenges. Dr Math was a particularly innovative service, which has connected 100 tutors to 19,000 children. An mLearning service called MoMath delivered a 14% improvement in Maths grades. As one student explained: *"With MoMath I can access Maths anytime. I don't have to wait to get into class for a solution."* Another said, *"MoMath has helped improve my grades. It has improved my understanding of Maths."*

However, also uncovered were some challenges in developing mLearning further. Some mobile operators reported frustration with Government policies towards mLearning. Although the Government has adopted pro-mLearning policies, these have not always been consistent and there is a lack of a clear, long-term strategy. This has sometimes discouraged operators from investing in mLearning services as they face an uncertain future and there are fears the investment will not deliver dividends. Some were also concerned that if short-sighted Government policies result in the failure of an mLearning service, the very importance of those services will lead to reputational damage if that is the result.

In order to work towards overcoming some of these challenges, close collaboration between mobile operators and Governments on both the development of a long-term mLearning strategy which meets that Government's priorities, as well as the creation of specific mLearning services is recommended. If there is "buy in" at the highest level, services are far less likely to fail. Mobile operators should work collectively to reach these agreements. International development organisations also have a key role to play in driving such collaborative work and ensuring they achieve real social impact.

A related concern from the mobile industry was uncertainty about return on investment. mLearning services often require substantial up-front investment but, because the young people being targeted are often poor, it can be difficult to see where the long-term profit will come from. In fact, as MoMath has shown, students did say they would be prepared to pay $1.25 to $1.50 per use, and increasing numbers are signing up.

Great opportunities exist in exploring creative ways of raising revenues, such as third party funding through Governments or NGOs, or through advertising to "end users". The potential of the market is illustrated by the investment Vodacom had made in its "Ummeli" mLearning service, or Nokia's successful piloting of its MoMath service.

Motivations of Stakeholders in mLearning

Stakeholder	Motivation
Parents/Self	■ Improvement in student grades and potential for University enrollment ■ Potential for child to earn bursary
Government/School	■ Maths/science competency critical to social upliftment ■ Reduce digital divide and reach to those without access
Foundation/NGO	■ Social and economic impact and value for underserved
Vendor	■ Potential for profit when services can be monitised ■ Intangible benefits including branding and goodwill
Content Provider	■ Additional sales channel for existing content ■ To maintain strong relations with partners for future work
MNO	■ Intangible benefits including branding and goodwill ■ Additional VAS differentiate, drive uptake, and reduce churn ■ Potential for profit when services can be monitised

Conclusion

GSMA undertook this study confident that mLearning had a crucial role to play in improving the education and life prospects of young people in emerging markets. The findings exceeded even our expectations, however, demonstrating what an exciting moment this is for everyone involved in mLearning. The time is right for the mobile industry, international development community and Governments to collaborate and create services that will have a profound, lifelong impact on the lives of young people.

Several essential conditions are in place. Firstly, young people have a huge appetite for learning, as shown by the fact that education and employment were a top three life priority across all of the countries surveyed. Secondly, enough young people in emerging markets now own or have access to a mobile to make the delivery of mLearning services viable. The value young people already place in mobiles is illustrated by the fact that 74% of owners said it was their most important asset. This leads to a third crucial factor: a large majority of young people see for themselves the potential in learning through their mobiles, creating an eager market for the right services.

Of course, there are still significant challenges before mLearning can reach its intended beneficiaries, as the research reveals. Most young people still have basic phones, and use basic services. If more sophisticated mLearning services – particularly Internet-based services - are to be effective on a large scale, the industry will need to make Internet-enabled handsets more affordable and widely available. It will also need to educate young people in how to use them: 44% of the people who took part in this survey had not accessed the Internet at all.

The industry also needs to do more research to understand the real educational needs of young people in emerging markets. Although these four countries provide a highly useful insight into these issues, they are only a start. mLearning services need to be developed in each market based on the unique circumstances that prevail there, and the specific ambitions and concerns young people within them feel. That will mean further research, which GSMA will encourage in the coming years.

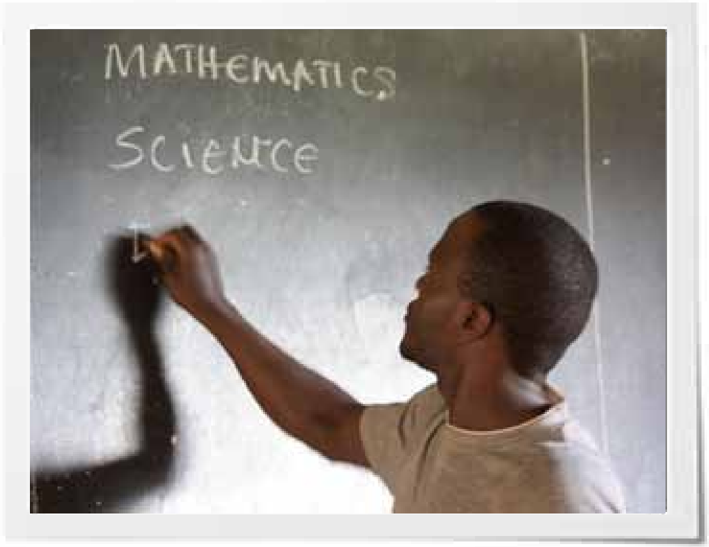
However, one thing is clear: if these challenges can be overcome, few services are as rich with potential as mLearning or have the potential to create such positive change. The eagerness of young people has been clearly demonstrated. Now it is up to the mobile industry and the international development community to commit themselves to stronger and more long-term partnerships that will not only benefit stakeholders but young people themselves.

It should be remembered that mLearning does not require vast investment. While other approaches to e-learning require major investments in IT infrastructure and training, as well as the upgrading of educational facilities, mLearning utilises a simple technology which is already ubiquitous, distributed and utilised. It can act as a bridge to encourage participation in education via informal learning.

We firmly believe that the rewards outweigh the risks. mLearning can provide an invaluable tool for the international development community as it strives to create better opportunities for young people in emerging markets. It can win the mobile industry passionate and engaged new customers. But most of all, mLearning has the potential to help young people get one step closer to fulfilling their ambitions, giving them the tools to build a better future for themselves and their families.

Simple, inexpensive programmes which utilise a technology *which is already present and valued* can have a huge impact in broadening access to educational services and reducing the cost to reach those excluded from education. If we unleash the power of the mobile phone in their pocket, we can help millions of young people realise their goals in life.

Country Snapshots



Country Snapshot: Ghana

Population: 24,391,823

Mobile penetration: 20,752,940

Adult literacy rate: 67%

Unemployment rate: 11%

Proportion of respondents from Ghana who were severely underserved:

35%

Proportion of respondents from Ghana who were underserved:

65%

Top 5 priorities in life:

Family (named by 54%), health (52%), education or learning (35%), quality of life (31%), employment prospects (28%).

Top 3 assets as reported by young people:

Mobile phone (72%), TV (27%) and clothes/shoes (24%).

Top 3 factors that would motivate non-owners to buy a mobile phone in the future:

Easier access (named by 21%), lower cost (21%) and more relevant services (17%).

Top 5 sources of educational information:

TV (named by 58%), radio (39%), Internet (32%), friends and family (29%), school and university (17%).

Top 5 sources of employment information:

TV (named by 54%), radio (35%), friends and family (28%) Internet (26%) and newspapers and magazines (13%).

Top 3 barriers to getting information on education or employment:

Financial constraints (named by 46%), inadequate job opportunities (25%) and lack of education (17%).

73% of respondents from Ghana recognised the potential of learning through their mobile, compared to 4% who did not.

Top 3 most attractive educational services:

Skills development (56%), language training (12%) and access to reading materials (10%).

Country Snapshot: India

Population: 1,170,938,000

Mobile penetration: 893,845,838

Adult literacy rate: 61%

Unemployment rate: 9.8%

Proportion of respondents from India who were severely underserved:

21%

Proportion of respondents from India who were underserved:

79%

Top 5 priorities in life:

Family (named by 78%), education or learning (52%), employment prospects (29%), quality of life (27%) and parents (21%).

Top 3 assets as reported by young people:

Mobile phone (79%), TV (49%) and refrigerator (23%).

Top 3 factors that would motivate non-owners to buy a mobile phone in the future:

Lower cost (named by 56%), more relevant services (55%) and greater reliability (32%).

Top 5 sources of educational information:

Friends and family (named by 61%), newspapers or magazines (59%), TV (55%), Internet (27%) and radio (12%). (Note that schools and universities were only named by 9% of Indian respondents).

Top 5 sources of employment information:

Friends and family (named by 58%), newspapers and magazines (54%), TV (41%), Internet (23%) and radio (7%).

Top 3 barriers to getting information on education or employment:

Lack of learning materials (named by 11%), financial constraints (named by 4%) and inadequate job opportunities (3%).

52% of respondents from India recognised the potential of learning through their mobile, compared to 28% who did not.

Top 3 most attractive educational services:

Language training (named by 50%) access to reading materials (22%) and online courses (19%).

Country Snapshot: Morocco

Population: 31,951,412

Mobile penetration: 36,453,000

Adult literacy rate: 56%

Unemployment rate: 9.2%

Proportion of respondents from Morocco who were severely underserved:

20%

Proportion of respondents from Morocco who were underserved:

80%

Top 5 priorities in life:

Health (named by 77%), education or learning (43%), employment prospects (43%), parents (38%) and money (25%).

Top 3 assets as reported by young people:

Mobile phone (86%), clothes/shoes (57%), desktop computer (50%).

Top 3 factors that would motivate non-owners to buy a mobile phone in the future:

Lower cost (82%), better screen quality (75%) and more relevant services (73%).

Top 5 sources of educational information:

Internet (79%), books (45%), schools/university (39%), friends and family (32%) and TV (15%).

Top 3 sources of employment information:

School/university (35%), Internet (21%) and TV (8%).

Top 3 barriers to getting information on education or employment:

Lack of learning materials (named by 60%), financial constraints (20%) and being in school (20% cited this, indicating that their school does not provide substantial careers information).

67% of respondents from Morocco recognised the potential of learning through their mobile, compared to 10% who did not.

Top 3 most attractive educational services:

Language training (36%), skills development (32%) and access to reading materials (25%).

Country Snapshot: Uganda

Population: 33,424,683

Mobile penetration: 15,290,423

Adult literacy rate: 73%

Unemployment rate: unavailable

Proportion of respondents from Uganda who were severely underserved:

21%

Proportion of respondents from Uganda who were underserved:

79%

Top 5 priorities in life:

Family (named by 58%), quality of life (38%), health (33%), education or learning (27%) and employment prospects (22%).

Top 3 assets as reported by young people:

Mobile phone (61%), digicam (29%) and land (14%).

Top 3 factors that would motivate non-owners to buy a mobile phone in the future:

Lower cost (named by 64%), easier access (51%) and more relevant services (33%).

Top 5 sources of educational information:

Newspapers or magazines (named by 43%), TV (42%), friends and family (42%), school/university (38%) and books (38%).

Top 5 sources of employment information:

Friends and family (named by 59%), radio (56%), newspapers and magazines (50%), TV (27%) and school/university (14%).

Top 3 barriers to getting information on education or employment:

Financial constraints (38%), lack of education (20%) and bribery or corruption (20%).

59% of respondents from Ghana recognised the potential of learning through their mobile, compared to 10% who did not.

Top 3 most attractive educational services:

Skills development (56%), access to reading materials (19%) and research (19%).

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