

Access and beyond

Education, gender equality and the role of individual digital agency

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Delivering quality education remains a major concern for many Commonwealth countries. As we move swiftly towards 2015, it is clear that despite some of the great leaps made in bringing more children into schools, the education Millennium Development Goals (MDGs) and Education for All (EFA) will not be met.¹ Where gender is concerned, ensuring equality in education for girls in particular remains a core concern for some of the membership's most marginalised children in Africa and South Asia. Education systems have expanded rapidly over the last decade, and more recently there has been increased pressure to also deliver measurable, quality learning outcomes that will empower beneficiaries with the kind of applicable knowledge and skills required in today's global landscape.

This imperative comes at a time when the growth of digital technologies and the increasing sophistication of 'smart' devices and applications are becoming integral facets in almost all areas of productivity and engagement, not only in developed countries, but also in the rapidly urbanising landscapes of countries in the global South. Ensuring equitable access to digital technologies is something that the Commonwealth has certainly been championing in the last decade, and bridging the 'digital divide'² in its various manifestations has been a key Commonwealth prerogative. But access to those technologies is just one avenue, and ensuring empowered participation with consistently evolving devices even once access is achieved has become a new challenge in itself. Individual digital engagement with technology can also be unequal, with many users unable to make the most out of the technology in their hands.³ With the existence of a digital gender divide⁴ in most countries that favours boys and men, ensuring that quality and unbiased education can empower the agency of girls and women has become an integral foundation for guaranteeing their equitable civic and economic engagement in our digital age.

Changing digital frontiers: layered stories

Internet access remains a major obstacle for many within the Commonwealth, echoing the call that although the digital divide has been on the agenda for some time, it continues to be a source of major inequality globally. The most top-line data at regional level demonstrates this: where the European Union and North America had internet penetration usage at 73 per cent of the population and 79 per cent respectively in 2012, statistics for Africa came in at 16 per cent, while even Asia (inclusive of East Asia) only registered at 27 per cent, and the Caribbean at 32 per cent.⁵

Within the Commonwealth, a more granular approach at the country level shows huge variances between members: the UK, Australia, New Zealand, Singapore and Brunei Darussalam have exceptionally high penetration rates in the 80th percentiles, while Rwanda comes in only at seven per cent, India at 11 per cent and Papua New Guinea at 2.1 per cent.⁶ This demonstrates that even despite huge growth in access in some countries – like Nigeria, which has almost doubled its number of internet users in four years to 28 per cent – providing access remains a major national challenge.

This reality makes the gender digital divide even more startling. Globally, the internet access gender gap shows that there are 200 million less women accessing the world wide web than men and, based on current trends, this is predicted to widen to 350 million in three years.⁷ Within developing regions specifically, the internet access gender gap is particularly stark: Sub-Saharan Africa stands at 43 per cent and South Asia at 33 per cent. Lack of economic independence, varied cultural prohibitions and lower levels of education are all key factors in this disparity.

Where lack of education in particular is concerned, the warp-speed evolution of digital information and communication technologies (ICTs) and the development of mobile devices such as smartphones, tablets and their associated interactive applications have already started taking the discourse to a new level: the issue of an individual's ability to fully engage with these devices is coming more sharply into focus, even as the access issue remains pertinent. Much has already been written on the proliferation of mobile phones in developing countries, but today some analysts are predicting that a growth region like Africa will have 69 per cent of handsets accessing the internet by 2014.⁸ However, the African example is a complex one that underlines the nuances of this access; mobile subscriber penetration (i.e. people who have subscribed to mobile services) in the continent is lower than mobile connection penetration (i.e. SIM cards) due to the phenomenon of multiple SIM connections per subscriber. Recent data shows that mobile subscriber penetration in Africa is set at 33 per cent.⁹

Research by the Global System for Mobile communications Association (GSMA) on women's access to mobile phones has demonstrated that despite another gender gap in this area (there are 300 million fewer female than male mobile phone subscribers in low and middle income countries), women are a key demographic in mobile phone usage increases in the coming years.¹⁰ However, the research also indicated that for many women from the poorest income quintiles, lack of literacy is a concern and a hindrance to fully engaging with the devices. Even for those



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200 million fewer women access the internet than men – in three years, this will be 350 million

women who have enough basic literacy and numeracy to engage with SMS and voice services, the advent of the smartphone's more sophisticated interface and web content could be a deterrent or simply lead to minimal engagement (even if the cost were not prohibitive).

Going further, inherent inequalities within women's digital engagement even in developed countries uncover the layered challenges ahead for developing countries in this regard. For example, women are still underrepresented within the digital industry in countries like the UK, and despite gender parity in education and greater access to the internet in the global North, gender disparities still exist in participatory engagement with open access data sites like Wikipedia, where only 15 per cent of the contributors are women.¹¹ With convergences between mobile telephony and internet access now the new frontier of digital agency, the challenges and opportunities around literacy and robust education among women and girls need to be fully unpacked by educationalists and those in the technology industry alike.

Gender equality in education: developing a responsive lens

The dynamism within our digital age therefore presents a key challenge that goes far beyond access. Essentially, girls and women in the Commonwealth need to be able to participate within the

digital age not only as consumers of knowledge, but also as responders, creators and innovators.¹²

The Commonwealth's recent education landscape has shown us a diverse picture of gender in education. For example, for many Commonwealth countries in the Caribbean and the Pacific, gender parity in basic education has been achieved.¹³ Additionally, recent UNESCO data from 2010 indicates that not only is the gender parity gap slowly closing at primary level, universalising secondary education remains a major challenge for many Commonwealth African and South Asian countries in particular, with access rates remaining challengingly low for both boys and girls.¹⁴ However, going to the sub-national level in Africa and South Asia demonstrates that keeping girls in basic education even after successful enrolment drives remains a challenge, particularly in rural and remote areas and among the most marginalised groups.¹⁵

In the absence of more granular learning outcome data, adult literacy rates (15 years of age and over) also demonstrate the persistence of gender inequalities in educational capacities in many of the Commonwealth's lowest income countries. Projected literacy rates by 2015 show that female literacy in Sub-Saharan Africa and South Asia will still only be at 54 and 52 per cent respectively, significantly below their male counterparts at 71 and 74 per cent.¹⁶ At the national level, this can be even lower – in Sierra Leone, the female literacy rate is projected to be 38 per cent in 2015. However, projected rates for youth literacy (15–24 years of age)

show a better picture – indicating that most adult illiterates are well beyond the reach of the education system – with all regions and countries demonstrating increases in both male and female rates. But the persistence of high female illiteracy remains a greater factor: in most cases, there remains a ten to 20 per cent gap even in this group.

The above suggests that even where basic education completion and transition appears to be improving, the issue of quality education measured through learning outcomes remains an overall challenge; this also has a gendered consideration. Where individual digital agency is concerned in the context of new mobile technologies, this has clear implications. A further factor is that of language. While it has been recognised that mother-tongue language instruction is the best approach for inculcating learning and literacy at an early age, the vast majority of content on the internet and in mobile applications is being developed in English. For many girls who do not go beyond primary education – particularly those in rural or more conservative parts of the country with less access than male counterparts to wider engagement outside of the community where additional language skills might be learned – the challenge of illiteracy is further compounded.

This leads to the need for a greater understanding of deeper gender inequalities within education that go beyond numbers. In 2003, the UNESCO EFA report indicated that achievement of gender equality (and not just parity) would require more gender responsive interventions, offering not just equality of opportunity but also equality in the learning process, and equality of learning achievement and length of school careers, among other factors.¹⁷ In this context, questions need to be addressed on the extent to which education systems reproduce societal gender inequalities in the schooling process: attitudes, expectations and aspirations, coupled with the school environment through its messages, teaching, classroom processes and curriculum, and whether these can play a significant role in either challenging or embedding bias.¹⁸ Where digital agency is concerned, education in schools has a role to play in promoting participatory engagement (and not just consumption) for all children (and not just that technology is a male preserve), which in time can help to buck the consistent global trend of more men in tech than women. Such a role is crucial in ensuring that girls and women have equitable civic and economic engagement as part of a community, and also as empowered sovereign individuals in their own right.

Empowerment through engagement

Generally, efforts to bridge the digital divide have already been made at various levels within Commonwealth countries, with governments initiating projects to enhance digital educational empowerment for the next generation. As an example, the Indian Government's introduction of the Aakash tablet aims to not only bridge the digital access divide between the poor and wealthy in India but also to provide a platform for educational empowerment through participatory engagement.¹⁹ The Aakash tablet provides e-learning programs to enable long-distance learning and is available to students in various state universities either at half price (US\$35) or for free.²⁰ Demand for the tablet and its success so far has now led to the production of a fourth generation Aakash tablet, with further plans to launch an Aakash smartphone in 2014.

While addressing the cost barrier is critical, gender inequalities within the digital divide require more targeted approaches within the education sector, particularly for women and girls. UNESCO's approach to literacy through digital media in a country with one of the lowest female literacy rates in Asia – Pakistan – acknowledge the key challenge of limited reading materials and implemented a 'mobile-based post-literacy pilot project' that addressed the need of retaining the literacy skills of those who have undergone the basic literacy course.²¹ Using mobile-based devices, newly literate girls and women received post-literacy materials as interactive messages in their mobile handsets, where they could read and respond to them. Prior to this project, only 28 per cent of the girls who completed their literacy course earned a grade 'A' on follow-up examinations. However, since the mobile programme was rolled out in 2009, over 60 per cent of girls now achieve that.²² Based on these results, the programme in 2012 expanded into using other forms of ICTs in the classrooms, such as the development of an application with Nokia 'e-Taleem' through which the contents of an interactive literacy DVD can be accessed via mobiles.²³

Similar approaches based on partnering with ICT providers and those engaged at the forefront of digital engagement are also being delivered in other parts of the Commonwealth. For example, SchoolNet Uganda has targeted girls-only schools to install computer labs, while the Sara Communication Initiative of the Pearson Foundation's Digital Arts Alliance, developed with UNICEF, has provided more than 200 adolescent girls in Tanzania, Zambia, South Africa and Namibia with mobile phones and laptops to make short films about their lives.²⁴

Engagement of women teachers also plays a role in addressing the relationships between wider gender inequalities and digital participation. In rural areas of Pakistan, demand for trained female teachers is high in order to keep girls in school. In 2012, UNESCO began implementation of a capacity-building project for 30 rural female teachers on Literacy and Non-Formal Basic Education (NFBE) methods using smartphones. In partnership with Punjab Department of Literacy and NFBE, Lahore, over 750 mobile messages were sent out to female teachers to enhance teacher training and inform them on various subjects such as health and hygiene, language, religious values and numeracy.²⁵

Outside of the Commonwealth, innovative programming is also taking place that can offer opportunities for adaptation and possible replication. In Afghanistan, the Ministry of Education has been working towards the 'Great Idea'²⁶ project, providing Afghan girls and teachers with access distance learning through using smart phones. Developed by a Dutch-based NGO, Butterfly Works, working in partnership with Oxfam Hong Kong, other local NGOs and schools, 'Great Idea' provides pre-recorded lessons that are saved on micro SD cards. These SD cards are distributed to schools that can be displayed by a mobile phone connected to a micro projector. Over the two-year period (2011–13), the results of this project showed a decrease in student drop-out rate, an increase in student test scores and the promotion of teachers to higher grades.

Conclusion

In both the education and digital technology sectors, going beyond access has become a clear mandate, even while it is acknowledged that access challenges remain critical. Multiple and nuanced

inequalities – gender inequality being one of them – play out in both fields at different levels, making the challenges for empowered engagement through digital media (and not just simply getting everyone online) more complex.

Where gender is concerned, the Commonwealth's diverse educational priorities means that – based on initial analysis of internet and mobile access coupled with education outcomes – girls and women in the membership's African and South Asian countries remain a key target group for increased and meaningful engagement, even while predictions for internet and mobile penetration in those regions appear promising. Generally, however, more granular analysis of gender inequalities is needed, given initial indications from the global North which suggest that women's presence as digital contributors and thought leaders is still lagging behind that of men. This speaks of deeper-seated gender inequalities within societies that have yet to be addressed, and barriers to women's agency that are still in place globally. Gender responsive education – in dialogue and partnership with those in the digital technology sector – continues to have one of the strongest roles to play in this area.

Endnotes

- 1 Burnett, N. and Felsman, C. (2012), *Post-2015 Education MDGs*. Overseas Development Institute.
- 2 The digital divide, or the digital split, is a social issue referring to the differing amount of information between those who have access to the internet (specially broadband access) and those who do not have access. The term became popular among concerned parties, such as scholars, policy-makers and advocacy groups, in the late 1990s.
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