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## SEX EDUCATION IN THE DIGITAL ERA

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# New Digital Ways of Delivering Sex Education: A Practice Perspective\*

Linda Waldman and Isabelle Amazon-Brown

**Abstract** This article explores new, under-researched genres of sex education for adolescents in sub-Saharan Africa resulting from access to the internet through mobile phones. It examines the history of developing online health information platforms tailored for youth through the experiences of digital developers and the reflections of users. Unlike traditional sources of sex education, the internet offers portability, anonymity, informality, 'personalised' responses, and the ability to interact with peers who are not local or part of face-to-face networks. This article draws on a literature review, complemented by qualitative and quantitative material generated by Every1Mobile in its production of online health communities for young people. We found massive enthusiasm for online sex education in Africa but little knowledge about how young people use, perceive and respond to this. We recommend that practitioners, funders and researchers invest more in understanding not only the many fantastic opportunities associated with digital sexual and reproductive health and rights (SRHR) information, but also the interwoven contradictions, challenges and potential for misuse.

**Keywords:** Sex education, digital forums, sub-Saharan Africa, adolescence, sexual and reproductive health.

## 1 Introduction

Sex education in sub-Saharan Africa has long been a contested area, with some advocating that young people need comprehensive, up-to-date information on sexual and reproductive health and rights (SRHR) and others preferring these topics to remain secretive. Despite this, young people have always found ways to access sex information, although often of dubious health quality. This article explores a new and under-researched avenue for adolescent sex education in sub-Saharan Africa, namely access to the internet through mobile phones. Although sex education (Iyer and Aggleton 2015) and the availability of sexualised material on the internet has received attention, there is little exploration of the internet as a tool for delivering accurate

sex education to young people outside the formal health and education domains, and almost nothing on social media forums that delivers this (Talukdar 2013; Simon and Daneback 2013; Guse *et al.* 2012). This article addresses these gaps in the literature through first examining the history of developing online health information platforms tailored for youth through the experiences of Every1Mobile, a digital development agency, and asking about the challenges that digital education practitioners experience. Second, the article explores what is currently happening in the field of digital sex education in sub-Saharan Africa through users' engagement with digital sex education services and, in particular, with an online platform named 'smartSex', in eight countries (Ghana, Kenya, Nigeria, Tanzania, South Africa, Zambia, Zimbabwe and Uganda).

## 2 Background

Adolescence and youth are times of exploration, risk taking, development and identity formulation (Anthony 2011; Simon and Daneback 2013), during which health and sexuality become increasingly prominent. As adolescents become conscious of their bodies, they experiment, explore and learn about their sexuality. They are, at the same time, exposed to a wide range of SRH challenges, including sexual activity at a very young age, HIV (human immunodeficiency virus) and sexually transmitted infections (STIs), unintended parenthood, multiple partners, intergenerational and/or forced sexual relationships and unequal power relations (Speizer 2011; Hervish and Clifton 2012). Accurate information about SRHR is thus an important means of ensuring healthy youth are able to make informed decisions that enhance their wellbeing. Yet in many parts of the world, access to SRHR information is restricted, safeguarded by gatekeepers, or, if available, it comes too late and in inaccessible formats (Anthony 2011). At the same time, health systems tend to overlook adolescent health because adolescents are generally considered to be healthy and because health statistics seldom isolate adolescents, thus making their health needs invisible (Temmerman, Khosla and Say 2014; Berer 2014; Hampshire *et al.* 2015, Patton *et al.* 2014: 385). Also, because the provision of these services to adolescents and young people is an acknowledgement of their sexual lives, which may run counter to prevailing religious or cultural ideologies that deny adolescent sexuality, there is often discomfort and reluctance about funding and enabling access to services.

Sex education, often delivered in schools as part of a national curriculum, is a highly contested area, which reflects political, moral and cultural debates (Simon and Daneback 2013). In Western countries, deliberations about whether sex education should emphasise 'fear and prohibition' or 'pleasure and empowered choice' continue (see Iyer and Aggleton 2015). In many other parts of the world, providing scholars with information on sex is seen to encourage sexual immorality and experimentation.

The internet and digital technology have resulted in an explosion of opportunities for SRHR information, which are usually outside

formal government health and education domains. Online sites offer a wide range of innovative ways for young people to acquire SRHR information (Simon and Daneback 2013). Unlike other sources of health information, the internet offers portability, anonymity, the opportunity to formulate questions and seek ‘personalised’ responses, and the ability to interact with peers who are not local and not connected through face-to-face networks.

### **3 Sex education and country context**

Sub-Saharan Africa has the youngest population in the world, many of whom live in poverty (Hervish and Clifton 2012). Diverse factors influence the quality of SRHR information available to these young people, making it difficult to draw conclusions across the region. The political and legal context that shapes sex education and available SRHR information varies from country to country. For example, the legal age for sexual consent in Ghana, South Africa, Zimbabwe and Zambia is 16, while it is 18 in Nigeria, Tanzania and Kenya (Hervish and Clifton 2012). Homosexuality is illegal in Ghana, Kenya, Nigeria, Tanzania, Zambia and Zimbabwe (Amnesty International n.d.). Abortion is highly restricted, with complex country-specific regulations, and health information about abortion not readily available. In addition, patriarchal sub-Saharan Africa demonstrates a wide array of sociocultural and religious factors affecting young people’s sexual experiences and access to health information. These include female genital cutting; child marriage; the failure to recognise women’s independence, autonomy and decision-making rights; and educational biases and faith-based or religious interpretations of men’s and women’s roles.

School is the primary context in which sex education takes place and all eight countries discussed in this article offer some form of comprehensive sex education in schools (Adepoju 2005; UNESCO and UNFPA 2012; Government of Ghana 2003). In sub-Saharan Africa, over 70 per cent of children attend primary school (Hervish and Clifton 2012). While there are concerns about secondary school drop-out rates affecting who has access to sex education, Kenya, Uganda, Zambia, Zimbabwe and South Africa offer some form of sex education in primary schools, and other countries, such as Ghana and Tanzania, have higher levels of progression to secondary school (UNESCO and UNFPA 2012).

SRHR information provided at schools is usually highly selective, primarily biological, and influenced by parents’ and religious groups’ ideas of what is appropriate. Many teachers (often male) are reluctant to teach these embarrassing subjects or include their own personal views, which may also incorporate and reinforce sexual harassment and violence (Lukale, Okondo and Racherla. n.d.). To date, there are no national comparative indicators that assess what is taught in classrooms. A review of the policies of Kenya, South Africa, Uganda, Zambia and Zimbabwe found in 2011 (UNESCO and UNFPA 2012) that, despite the wide variation between and within country-specific sex education,

the material was age-appropriate; communication (and refusal) skills were reasonably well addressed; the biological processes of puberty were clearly presented; and some information on gender was provided. However, insufficient attention was paid to contraception methods, to the social, moral and religious context in which puberty takes place, and to gender inequality, gender-based violence, empowerment and human rights. Moreover, 'references to sexuality tended to be negative and fear-based', emphasising a moralistic approach and overlooking power dynamics and social norms that negatively influence young people's sexual health (UNESCO and UNFPA 2012: 4). In 2013, Kenya, South Africa, Uganda, Tanzania, Zambia and Zimbabwe affirmed their renewed political will to address SRHR through sex education and other means in the East and Southern Africa Ministerial Commitment meeting in Cape Town (UNESCO 2015).

In sub-Saharan Africa, first sexual encounters tend to be experienced while still young: the median age for women is 16–18, and for men 17–20, but this varies considerably across the countries (Hervish and Clifton 2012). Contraceptive usage is low in all countries except Zimbabwe. Adolescent birth rates are high, with girls aged 15–19 accounting for 16 per cent of all births. HIV infection is also high across sub-Saharan Africa. Many of sub-Saharan Africa's HIV-positive adolescents contracted the virus 'vertically', either before or during their birth. Most young people are, however, unaware of their HIV status. For example, in Tanzania, only 40 per cent of women and 25 per cent of men aged 15–24 have been tested. Many adolescent girls' first sexual experiences result from coercion; high rates of child marriage occur; and girls in their teens are at greater risk of sexual violence than older women (Hervish and Clifton 2012).

It is clear that, despite the diversity of legal, political, sociocultural and educational contexts in these countries, young people are engaging in a wide range of sexual activities and are not receiving comprehensive SRHR information from conventional sex education programmes in schools. Over the past ten years or so, a revolution in mobile phones and internet access has made it possible for these youth to access SRHR information through online social forums.

#### **4 Developing sex education online**

Young people around the world use the internet to access SRHR information (Guse *et al.* 2012; Best, Manktelow and Taylor 2014; Simon and Danback 2013). New social media platforms have emerged that facilitate online digital interactions with young people and provide accurate, good-quality SRHR information. These platforms fill a much-needed gap, as few other sex education sources are actively used by young people (Gray *et al.* 2005).

The increasing penetration of mobile phones, including internet-enabled feature phones,<sup>1</sup> makes it possible for young people in Africa, across a range of different socioeconomic strata, to access the internet

(see Hampshire *et al.* 2015; Pfeiffer *et al.* 2014). This is witnessed in the massive uptake of platforms such as Whatsapp, the Opera Mini mobile web browser and the South African instant messaging service, Mxit, making it possible for users to send and receive information at lower costs than standard SMS and web browsing. Opera Mini, for example, reduces feature phone web browsers' data usage by 80 per cent, and Mxit gained popularity because it allowed users to send messages at less than 1 rand (or £0.05) per message.

One of the first organisations to recognise the opportunities presented by this new technology was Every1Mobile, a digital development agency that leverages the reach of the mobile web to deliver social impact programmes. In 2008, upon realising the volumes of young South Africans using Mxit, Every1Mobile started developing basic educational content and making it available to Mxit's users, at one time numbering at least 30 million (Chigona *et al.* 2009). The online platforms that Every1Mobile developed for young people and the provision of SRHR information through these platforms form the focus of this article.

## **5 Materials and methods**

This article draws on a literature review, complemented by the experiences and reflections of digital sex educators in the process of designing and developing online material.

No new data has been collected for this article. Rather it relies on qualitative data, which has been anonymised, and quantitative material, analysed at an overall population level, already gathered by Every1Mobile to assess user profiles, engagement and feedback. This includes user surveys previously undertaken by Every1Mobile that provide an indication of users' opinions on sexual health education as well as data drawn from visits to, and feedback on, mobile websites with users in Ghana, Kenya, Nigeria, Tanzania, South Africa, Zambia, Zimbabwe and Uganda and users' spontaneous commentary and feedback. Every1Mobile also collates data about the devices used to access smartSex (see Section 6). This shows that 97.5 per cent of users access the internet via mobile phone, of which 63 per cent use feature phones and 37 per cent use smartphones. Additional information about users is available to Every1Mobile through users' Internet Protocol (IP) addresses, which indicate which country a user is in and whether a user is a new or repeat visitor to a particular site. Other sociodemographic information depends on whether users have registered with smartSex and on what they choose to reveal. On Mxit, users must log in, entering their age, gender and country before accessing the platform. This is ideal from a data analysis perspective, as traffic and engagement data can be correlated with demographic data, presenting a detailed picture of users and their engagement. This demographic data is, however, not always reliable, as users may provide fake information, for example, Every1Mobile has a small number of 99-year-old users! Moreover, as discussed below, Every1Mobile does not insist on registration.

## 6 Results

### 6.1 Developing an online platform

Every1Mobile's first portal, called 'Bsmrt'<sup>2</sup> provided basic information on English, history, science, mathematics, biology, physics, engineering, career guidance, etc. Bsmrt had to be added as a 'contact' on the Mxit app and was not discoverable via a browser or search engine. The user had to click on the contact to open it, before browsing the service as if using a basic web page, all from within the Mxit application.<sup>3</sup> Users could then use Bsmrt's educational or entertainment services, and add the service as a contact if they wanted to access it regularly. Once added, the contact – and hence the content – could be accessed at any time as long as the user had a small amount of data allowance to browse with.

Every1Mobile's founders believed that digital services such as Bsmrt could be developed into online communities, where users could access educational content, get advice and support, and share their experiences and opinions. The underlying idea was that services could be further developed not just to facilitate access to information or changes in attitudes, but also to change behaviours – with systems engineered to enable the tracking of such behaviours in the real world. For example, an early project, smartEyes, allowed users to learn about eye health, take basic eye tests and be directed to the closest point of delivery for a free eye test and glasses. Every1Mobile's founders believed that this 'results-based delivery' model would disrupt traditional aid models, creating a virtuous circle where attitude and behaviour change could be provoked, tracked and proven, at scale.

Before this could be achieved, however, Every1Mobile needed to demonstrate that it could attract high volumes of users. It experimented with an array of topics (information on voting in the South African elections, sport scores, literacy and numeracy education) and with different types of content (spelling quizzes, games, brain teasers, short stories). All of this material was available online and free to users.

Every1Mobile's philosophy has been to use its communities to enhance users' resilience. The information and exchanges available in their online communities aims to improve users' ability to deal with and adapt to the challenging situations they experience living in impoverished contexts. Every1Mobile has therefore tried to provide young people with a safe online space where users feel supported and listened to and can gain confidence in their ability to shape their own futures. Every1Mobile frequently consults users via surveys on new content and service ideas, offering them opportunities to trial beta versions<sup>4</sup> and share feedback. Through these activities, Every1Mobile developed Bsmrt into a youth-centric online community. Bsmrt was a success with more than 42,000 users in its first year. Of 3,000 users surveyed in 2010, 70 per cent claimed to 'love it' and 76 per cent to find it useful.

*Mmm I love Bsmrt more than I love my boyfriend lol<sup>5</sup>... I really enjoy your company (female, Bsmrt user, 24).<sup>6</sup>*



Figure 1 A feature phone displaying the smartSex home page



Source Every1Mobile.

*I love Bsmrt coz it helps me out with my studies, I never get bored when using it... I always tell my friends to try it... but they laugh coz they already using it (male, Bsmrt user, 19).*

*This app... has everything you're looking for... Now we only need an app to download food (male, Bsmrt user, 17).*

Every1Mobile used Bsmrt and other 'proof of concept' online communities to show potential funders in the development sector that it is possible to reach thousands of African youth with interactive content, via mobile. This online connection can be used not only to provide young people with information, but also to engage them in an ongoing dialogue – an advantage over traditional mass communication means, such as radio or television, and school sex education programmes where students are encouraged to learn but not share their views, let alone their needs.

One organisation attracted to Every1Mobile's platforms and its potential for ongoing engagement wanted to research the suitability of a new menstrual cup for young South African women. It was particularly encouraged by Bsmrt's most popular feature, a sex and relationship question and answer (Q&A) service called 'Talk and Tango' where users could ask and answer questions. Launched in October 2012, 'Talk and Tango' generated 155,000 page views in its first month. Every1Mobile proposed, working with its new partner, to develop smartSex, an online community formed around the topics of SRHR. smartSex was launched on Mxit in January 2013, aiming to be the 'go-to' place for young people who wanted reliable, non-judgemental advice on sex and relationships (Figure 1). It included the following features:

- 1 Expert Q&A – users send in questions, and online experts respond to a selection of questions every day, which are then published anonymously for the whole community.
- 2 Surveys and polls – users are asked their opinion on a wide range of topics, usually in the form of multiple choice questions.
- 3 Sex education 'manuals' – easy-to-understand articles on subjects such as puberty, pregnancy or masturbation.
- 4 Quizzes – users test their knowledge on the 'manuals' via multiple choice questions and are provided with the correct answers.
- 5 Peer2Peer advice swap – each week, a realistic scenario is presented and users are encouraged to share advice and support.
- 6 Experience sharing – users share their personal experiences on the week's topic.
- 7 Additional features – a 'photo booth' where users can share photographs, a feedback section, and register for free updates.

In its first three months, smartSex was accessed by over 700,000 users, primarily in South Africa, and delivered an average of 10,000 respondents to surveys commissioned by the partner organisation.

In an effort to increase its audience and expand the number of countries reached by smartSex, Every1Mobile quickly sought alternatives to the Mxit platform, as its popularity was declining. It also launched smartSex via Africa's most popular mobile browser, Opera Mini.<sup>7</sup> Opera Mini showcased smartSex and other Every1Mobile sites under its Education and Health 'suggested links' to users in South Africa, Nigeria, Ghana, Kenya, Tanzania and Zimbabwe and, more recently, Uganda and Zambia. smartSex today receives 155,000 monthly visitors from the web, while its Mxit users have dwindled to 1,678.<sup>8</sup>

Building on the success of smartSex, Every1Mobile designed and managed additional online communities (see Table 1). Some of these communities have thrived and continue to attract large numbers of users (smartchoices and HIV360) while others have not (smartSex No Yawa and No Regrets). smartSex remains the largest and most successful and, in the following section, we explore its users and related opportunities and challenges.

### 6.2 The online user community

Young people are engaging with health and sexuality online platforms and using mobile phones creatively and strategically to try to secure health care and health information (Hampshire *et al.* 2015: 97; Allison *et al.* 2012). To date, very little is known about who these users are and how they experience SRHR information online. Knowing more about the users is complicated by the technology, the users and the choices made by platform developers.

Table 1 Every1Mobile's online communities

Site name	Objectives	Funder	Current monthly users	Current geographical reach
smartSex	Provide reliable, open, judgement-free SRHR information and advice	Original funder: women's health charity; currently funded by Every1Mobile	155,000	South Africa, Nigeria, Ghana, Uganda, Zambia, Kenya
smartSex No Yawa	A targeted version of smartSex	Grameen Foundation	No longer active – users redirected to smartSex	Ghana
No Regrets	'Edutainment' mobile series to dramatise SRHR scenarios in support of No Yawa	Grameen Foundation	No longer active	Ghana
smartchoices	Increase awareness, demand and use of female-controlled contraceptives	USAID	35,000	Zambia
HIV360	Inform and support those affected by HIV/AIDS	Every1Mobile	60,000	South Africa, Zambia, Zimbabwe, Nigeria, Ghana, Kenya, Uganda, Tanzania

Source Information provided by Every1Mobile.

Figure 2 smartSex encourages users to log in



Source Every1Mobile.

Users can discover smartSex through Mxit, Opera Mini or any browser of their choice and they may or may not have registered. The majority of smartSex users use the mobile web (including Opera Mini) to access the site. Here users can create an account and share information, although Every1Mobile does not insist on this. Rather, it encourages users to create accounts through incentives, with a user account making it possible to participate in competitions, use the 'like' or 'dislike' features and for users' names to appear on a quiz leaderboard (see Figure 2). As a consequence, Every1Mobile has only a partial record of the overall demographics and user behaviours. This reflects the tension between the need to balance users' privacy and the need to gather sufficient data to tailor services to users, inform future developments and measure impact of the site.

Nonetheless, Every1Mobile can at minimum track the countries where smartSex users live, based on their IP addresses; and for the smaller cohort who log in, their gender, age and additional data usage. Each of these is discussed in turn below.

#### Users' countries of residence

The geographic distribution of smartSex users is affected by smartSex advertising, Opera Mini's distribution patterns and by country specific factors such as infrastructure, handsets and credit affordability and web literacy. In May 2016, most smartSex users came from South Africa (35 per cent) and Nigeria (35 per cent), with Kenya providing 13 per cent of users and small proportions from Ghana (5 per cent), Zambia (4 per cent) and Uganda (1 per cent). These smartSex users are excited about discovering a service that is educative, provides SRHR information and allows them to talk openly about sex and sexuality:

*Smrtsex you rock, keep it up, many get the chance to be free and they learn things which other parents don't talk about with their kids.*

*I love smart sex because it is very educative in all aspects and also a good platform to teaching the youth all about sex and its related issues.*

*Smrtsex teach us 2 b smrt n 2 respect our body, our partners nd our health as wel. it give us tips 2 be expets in sex n 2 knw more abt it nw i undrstand many things abt relatgionships nd sex all thanks 2 smrtsex i cn nw respect my gf nd b romatic as wel.*

What is unknown is the extent to which users' country origins, and therefore a range of sociocultural, political and technological factors, influence their desire to use the site. What is certain, however, is that a small pilot designed for South African teenagers has proven popular across a wide range of Anglophone sub-Saharan countries with little modification to its features or editorial approach.

#### Gender

Of the smartSex users who logged in between March and May 2016, 76 per cent were male and 24 per cent female. This gender balance highlights one of the significant challenges – and opportunities – of

conducting SRHR education online. It reflects a global digital divide, where online access tends to be gendered (McMillan and Morrison 2006; Gray *et al.* 2005; Pfeiffer *et al.* 2014) because of a range of factors including sociocultural and gender norms, education levels, access to technology and money, and the freedom to spend time in an internet cafe.

For sexual health educators, this means that reaching women is more challenging than reaching men. By using additional advertising platforms, such as the popular chat app '2go', it is possible to achieve a better gender balance, but this has cost implications. More research is required to better understand how women are using smartSex and why it is accessed by fewer women and girls. Nonetheless, some young women have benefited from smartSex, particularly appreciating the women-only spaces:

*I think smrtsex is great idea for all the shy girls out there. Most gals make the wrong decision coz they are misinformed, some just chose to make the wrong ones coz they are afraid to ask. Smrtsex is fun and you get to interact with other gals who know what you are going through.*

The high numbers of male users is encouraging, not only as they too are neglected by health systems (Temmerman *et al.* 2014), but also because men tend to be the initiators and decision-makers of sexual encounters. This presents an opportunity to capitalise on their online activities, and to challenge their prevailing beliefs, practices and gender-based patterns of entitlement/responsibility. At least some male users have indicated that smartSex has made them rethink their sexual behaviours: '[The] smartSex crew is amazing cuz it... helps you making best decisions' (male, Nigeria, 15).

### Age

The ages of smartSex users who logged in between February and April 2016 provides further insight into who is engaging with online sex education. The data shows that a wide range of users are represented, suggesting that both adolescents and young adults need accessible educational material. Most users (52 per cent of logged-in users) are aged 18–24; with a further 25 per cent aged 25–30. A few (6 per cent) are older, between 31 and 35. This is influenced by the likelihood that older individuals can afford a phone, while demonstrating a need for information beyond the age groups usually targeted by sex education initiatives. It also challenges the assumption that different approaches are needed for different age groups. Indeed, the proportion of users aged 12–17 match the number of users in their early 30s. This is remarkable given the barriers to access, and the potential taboos associated with sexual information for young people. The proportion of users under 17 may be even higher, as evidenced by this feedback from a South African user whose profile lists him as 19:

*You guys just inspire me by the amazing choices u give me(us), I mean, am just a 14 year old boy who has dreams about having sex. But you guys made me realise how I can get invested by any sicknesses. I would like to thank you for showing me the right steps and wait until my time.*

Figure 3 An example of a smartSex manual: 'Understanding Your Menstrual Cycle'



Source EveryIMobile.

### 6.3 Editorial and community management process

smartSex designs features specifically to provide accessible and entertaining ways of receiving SRHR information. The most labour-intensive features are the 'manuals' (see Figure 3), 90 of which have been published. In developing a manual, the smartSex content producer and community manager work with qualified SRHR experts, taking into account users' knowledge gaps, common myths, desired behaviours or attitude change. Topics are determined by users' frequent questions on a specific topic in the Q&A section, direct user requests, and/or an assessment of gaps in smartSex's range of topics. In addition, smartSex may run a survey to inform a particular manual's focus and approach.

Experts also categorise and answer user questions. Over 300,000 questions have been submitted, of which around 3,000 have been answered. smartSex makes it clear that only a selection of questions are answered (discussed in more detail below). The experts prioritise questions not previously asked or those which relate to life-threatening or life-altering issues such as underage pregnancy, sexual assault or HIV.

#### Editorial values

smartSex takes the approach that no topic is off-limits. However, it also recognises the contested nature of sexual knowledge and information in the specific countries where smartSex is available. Thus, when producing content, smartSex staff keep in mind the different countries' gender norms and cultural contexts, yet strive to provide accurate, internationally accepted information. At all times they try and be cognisant about the ways in which information might be received and interpreted by users. smartSex has grappled with how to deliver SRHR information in conjunction with, and in recognition of, the specific cultural contexts in which users reside. It prioritises internationally recognised medical or psychological facts, placing the users' wellbeing above the laws and/or social norms of their countries. smartSex therefore explicitly recognises a range of sexual identities – gay, lesbian and heterosexual – and makes it possible for users to identify with them. Abortion – another highly contested topic – is dealt with similarly. For example, an article on underage pregnancy will talk about abortion alongside the range of other options potentially available. The article might also include a reminder that local laws differ and further advice should be sought.

#### Language

Key to smartSex's values is the tone and language used to deliver information. This includes everything from the way manuals and answers to users' questions are written to the way that content is curated. smartSex communicates in English, using informal language and clear, simple, non-medicalised terms. Words like penis or vagina are preferred over vernacular terms, but sometimes words like 'cum' might replace medicalised terms such as 'ejaculate', in an attempt to mimic a conversation, and to avoid appearing like a medical guide (see Figure 4).<sup>9</sup>

Figure 4 The smartSex manual on condom usage



Source EveryIMobile.

This relaxed, non-stigmatising tone aims to make users feel comfortable and to replicate the experience of receiving information from a trusted, informed friend rather than from a parent, teacher or medical professional. Users also respond to smartSex in English, which may be a second language for many, and in 'text speak', incorporating many colloquial and non-English terms.

#### User interaction and feedback

smartSex does not allow users to chat privately on the site – all peer interaction is moderated before publication. This may seem to go against the concept of a community, however smartSex, as a non-funded site, does not have the resources to keep open comment areas 'safe' and protect both users' and the brand's reputation. This would require constant moderation to delete phone numbers or other inappropriate requests. Instead, users participate in curated 'peer2peer' exchanges which are reviewed by the community manager before being published. Using this mechanism, users can share experiences, advice or messages of support. Similarly, users are asked to share their experiences on specific topics. As they see experiences similar to their own, they can reflect on, and learn from them, be inspired by positive choices, and perhaps, feel a little less alone:

*Sistahood has been of great help to me, it helped me alot since am in a long distance relationship & Going to be a teen mom very soon..am grateful for all the experiences other sistaz have shared coz I've learnt from them (female user, 19).*

Surveys are an important component of smartSex, enabling users to share their views and to communicate directly with smartSex, which are published back to the community. Since launching, smartSex has published over 50 surveys, gathering between 500 and 20,000 respondents per survey. Surveys have been undertaken for the Southern African AIDS Trust, Cell Life and Health Enabled, to gather real-time data from users on topics such as sexual health education, contraceptive use, and money spent on menstrual protection. smartSex surveys have also been used to project young people's voices in political and policy contexts. For example, during the Adolescents' Sexual and Reproductive Health Rights, Gender-Based Violence and HIV in Africa Symposium, in Zambia in 2014, young people's views on sex education were solicited and presented to representatives and policymakers from health systems, governments and non-governmental organisations (NGOs) and international partners.

Finally, quizzes, usually published hand-in-hand with manuals, are a favourite feature in smartSex. These allow users to test their existing knowledge, or see how much they have learned from a manual. Not only do they offer an interactive approach to sex education, they also make sex and sexual health less serious and scary: 'I just did the quiz and it was fun... I was corrected on things I thought were right'.

smartSex's feedback section asks users to share what they think about smartSex or what it could do better. Since the site's launch, smartSex



has received over 11,000 feedback submissions, of which over 4,200 have been published. This user-focused approach harks back to EveryIMobile's desire to make young people active participants in the development of the services they use. A systematic qualitative analysis of the feedback has never been conducted, but it is clear that smartSex is having a positive impact on young people across Africa. Users express thanks for information on topics previously closed to them, and suggest that this helps them think differently about their health, relationships and decision-making: 'Thanks guyz. I owe you one. Your advice is great and real. Am a changed person coz of you. Some habits are difficult to change but with you it's becoming easier' (South African user).

smartSex receives very little negative feedback from users. There have been very few suggestions that the service should be stopped, or that it is problematic. The most common complaint received concerns smartSex's Q&A. The complaint is, quite simply, that a particular question posed by a particular user has not been answered. This illustrates the sheer challenge of dealing with 300,000 questions, many of which are repeat questions. This is emotionally and technologically challenging for smartSex staff, who remind users that they cannot address every single question and that many questions already have published answers.

## 7 Discussion

It is both exciting and challenging to provide comprehensive SRHR education across sub-Saharan Africa. But at the heart of this ability to educate at scale lies a significant ethical challenge. Not only do smartSex experts not have access to any contextual information about the users asking the questions, but their responses – aimed both at the individual and the smartSex community – do not refer to national laws or local service provision. Being able to provide progressive SRHR information that would otherwise be censored is considered a positive undertaking by many, and yet it is problematic not to provide locally relevant, context-specific information. smartSex experts try to provide advice that acknowledges cultural and legal differences, but establishing stronger ties with existing local SRHR service providers in order to offer a more contextually relevant service might be preferable. Indeed, this is envisaged in the *Digital Inclusion 2014* report (GSMA 2014), which sees the incorporation of local content and e-government services as a significant new area of mobile development.

The focus on locally relevant content could, however, limit the range of information provided, swamping users with politically acceptable sex education on topics such as HIV/AIDS, while omitting areas such as abortion, sexual identity or homosexuality. While association with, for example, a ministry of health, could be positive in terms of formal acknowledgement, cultural alignment and service delivery, it could also put off users, restrict content and constrain the open values of the site (see Waldman and Stevens 2015). EveryIMobile believes that its editorial policy is a significant factor in smartSex's success, providing users with a space free from the judgements or taboos they

may encounter in their day-to-day lives: 'I did not have the slightest idea of this site where people can talk about Sex and its goodness and challenges without owing anyone an apology. Damn I love this, keep up the good work!' (male user, Zimbabwe, 28).

The debate on cultural relativism and human rights has long plagued development studies (Cowan, Dembour and Wilson 2001) and, in this particular context, considers outsiders' rights to provide 'progressive' sex education material against the rights of individual nations to restrict access to such information, often for cultural reasons. Yet, in a world where information flows freely, and where young people can access the internet through their mobile phones, regulation may in any case be impracticable. Increased partnerships between supportive local partners and online platforms such as smartSex, facilitated by the major donors, may provide a more comfortable middle ground, where scale can be achieved alongside more locally relevant advice. Governments, donors and other development partners could pay more attention to the needs of young people and recognise the democratic value of online services. Indeed, a 2013 poll conducted by Every1Mobile showed that young people would prefer to receive support and guidance from service providers: 49 per cent of respondents said they would ideally like to learn about sexual health from a health professional, 14 per cent from a family member, and 12 per cent from school. Only 9 per cent said they would prefer an online service. However, until shifts in local infrastructure, resources and expertise take place, and until profound changes occur in the way sex education is perceived, smartSex and its like will remain for many the only option. The notion of a middle ground – of finding consensus; of recognising the transnational culture that informs human rights; and of the ways in which aspects of human rights are already rooted in particular local practices – offers a way of moving beyond intractable debates on cultural relativism and universal human rights (Merry 2006; Prasad 2007). Such a resolution is, however, unlikely to occur through technology alone, requiring evidence, dialogue and political will. Online mobile sex education is an unprecedented opportunity for young people, health professionals and policymakers who wish to come together to acknowledge adolescent sexuality. It offers opportunities to inform young people, to better understand them, and give voice to their needs in global discussions about sexual health education provision.

Recent research has begun to review online sex education sites asking whether these sites really make a difference, concluding that while there is evidence of improved knowledge, more research is needed to confirm behavioural change (Guse *et al.* 2012; Allison *et al.* 2012). Almost half of smartSex users only visit the site once. Is this because they found answers to the questions they were looking for, or because they decided that the site was not for them? How much engagement is needed to change behavioural choices? One visit? Five? In Every1Mobile's experience, users respond positively to advertising and promotion. The very high numbers of users in the first few months is partly in response



to the excitement of Mxit in South Africa and the new possibilities of accessing online information using internet-enabled feature phones. Other peaks in user numbers can be related to specific advertising to encourage visits to smartSex and other online sites.

In-depth academic research that links online and face-to-face research, both qualitative and quantitative, into how young people are using online sex education remains in its infancy, along with understanding how these sites are changing the sex education landscape. For smartSex, better data would be provided if users were forced to log in to track their visits longitudinally and to know more about them. These very measures might alter the open and anonymous nature of the site that makes it so attractive to users. And while research remains focused on evidence of behavioural change (ICCD 2014; Allison *et al.* 2012), few are looking at more intangible changes such as resilience and self-esteem, or attitude change.

### **8 Conclusion**

Sex education, to date, has tended to reflect society's dominant political and sociocultural norms and to impose these – as expectations or threats – on adolescents and young people. Digital sex education has the potential to either reinforce or challenge these social norms and trends. It also has many advantages over conventional sex education, including its anonymity, apparent lack of adult control, ready availability and communication style (Talukdar 2013). Nonetheless, a 2013 thematic review of sex education online showed continued marginalisation of topics such as experimental sex, sexual pleasure, masturbation, abortion and of content derived from user feedback or preference (Simon and Daneback 2013). There are additional concerns: Are young people receiving paradoxical health information from multiple sources? How will young people deal with the contradiction between increased information on SRHR and a lack of medical services to address their health needs? How will Every1Mobile, and other internet-related facilities, address the challenge of locally relevant content (Gray *et al.* 2005)? How long will online space remain unregulated? Will governments increasingly seek to regulate and control these online spaces or should other international institutions play a regulatory role? What are the negative implications or unintended consequences of digital sex education that have yet to be realised? Will it be around issues of social isolation, increasing inequality, cyber-bullying, online harassment and exploitation or increased risky sexual behaviour (McMillan and Morrison 2006; Best *et al.* 2014; Allison *et al.* 2012)?

This article explores the historical development of an idea of using social media and young people's interest in online activities as a means of disseminating information, encouraging dialogue, promoting users' resilience and facilitating social development. Every1Mobile has not yet achieved its initial 'results-based delivery' goal, partly because of the challenges of integrating information with on-the-ground services that are often inconsistent or absent. It has, however, shown that young

people in huge numbers and across multiple countries are interested in and excited by what smartSex has to offer. The numbers are staggering to social scientists: 155,000 monthly users, 11,000 feedback responses, survey responses of between 500 and 50,000. Yet, there are major gaps in what we know about how young people use, perceive and respond to online sex education in Africa. This is an opportunity as well as a challenge for practitioners, who find themselves sitting on an ever-growing mountain of data, with limited capacity to regularly analyse it unless the needs of a programme encourage them to do so. For funders or programme managers taking advantage of the online environment as an additional channel through which to conduct information dissemination or behaviour change, it can also be a poisoned chalice: the enthusiasm to embrace the new medium is often coupled with the reality of limited time, capacity and budgets with which to monitor and evaluate the success of the medium. It is also a challenge for researchers: how does one make sense of short SMS messages written in highly colloquial text speak? Both qualitatively and quantitatively, these data are not easy to analyse as they offer limited and disparate socioeconomic and demographic data, and are restricted in terms of length and content. The research potential of this platform is yet to be recognised and explored, both by sex education practitioners and academics.

The use of social media and online communities as a tool for SRHR information has many fantastic opportunities, and interwoven with these opportunities are contradictions, challenges and questions around how society is changing and evolving and what this means for sex education and the health of young people. Yet, for young people whose lives are increasingly online and who experience many social and formative interactions virtually, there are few contradictions. As one smartSex user commented: 'I've been using this app for a long time now and it has been so helpful and very informative... the upcoming generation would appreciate such help especially if it's online coz our lives are online' (male user, 21).

Perhaps Every1Mobile's vision of a world where information about SRHR leads to attitudinal and behavioural changes at scale and where these changes can be tracked and recorded still lies in the future. Perhaps some other outcome – possibly facilitated through technology, possibly not – will materialise.

### Notes

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- 1 Low-end mobile phones that provide some smartphone capabilities, such as telephone, SMS messaging, basic multimedia, internet capabilities, touchscreens, access to social networking sites and additional services offered by telecom providers.
- 2 SMS spelling for 'be smart'.
- 3 Every1Mobile paid Mxit a fee to advertise and feature Bsmrt to its users.
- 4 Unreleased software made available to a limited number of people for testing.
- 5 Acronym for 'Laugh[ing] Out Loud'.
- 6 Influenced by the limiting technology of early mobile phones, in which it was difficult and time-consuming to send text messages, text speak is commonly used in SMS and other digital communications. It uses abbreviations, has no standardised grammar or punctuation and may use phonetic writing. User feedback has been edited for clarity, for example, this original quote reads: 'Mmm i lv Bsmrt mre thn I lv mah bfrend lols#... i rly njoy ur compane'.
- 7 Opera Mini has over 290 million users worldwide.
- 8 Mxit's reliance on feature phone technology, strong international competition, new technologies and the smartphone revolution have contributed to its demise as a social network.
- 9 A welcome development would be to create localised versions of the content, written either in local languages or at least using more colloquial and non-English terms and expressions. An interesting exercise would be to survey smartSex's user base about their language preferences and see how answers vary across geography and gender.

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