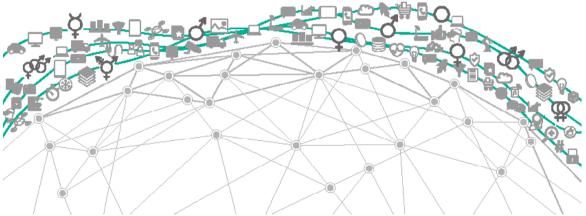
affow —for change—

vol. 22 no. 1 2016 issn 1394-4444

Sexuality, Sexual and Reproductive Health and Rights, and the Internet



28-33

editorial

The New Green: The Landscapes of Digital Activism

spotlight

One and the Other: Fighting Online Misogyny, Fighting a Corporatised Internet

Minding the Data Gap: Data Risks and Revolutions in Meeting the Sustainable Development Goals

Quantifying Fertility and Reproduction through Mobile Apps: A Critical Overview

Apps, Drones, and iTunes: Opportunities and Challenges in Using

 New Technologies for Safe Medical Abortion Services

> The Potential Impact of Free Basics on SRHR Advocacy in Bangladesh

in our own words

6-27

Gender, Romance, and the Internet: The Creation of a Non-Binary, Non-Binary Person

Is Access Real? Disability, Sexuality, and the Digital Space

monitoring regional and global activities 34

Security in Contentious Contexts: Exploring Digital Resilience for Organisations Serving Sexual and Gender Minorities

Safer Nudes! A Sexy Guide to Digital Security

Women's Bodies on Digital Battlegrounds: Networks of Information and Support by Pro-choice Activists in Latin America

resources from the arrow srhr knowledge sharing centre 41–

selected arrow resources 44-46

definitions 46-48

factfile 49-5

Access, Legislation, and Online Freedom of Expression: A Data Overview

editorial and production team 56

published by the asian-pacific resource & research centre for women

championing women's sexual and reproductive rights



developed in collaboration with

TACTICAL TECHNOLOGY COLLECTIVE



published with funding support of





THE NEW GREEN: The Landscapes of Digital Activism

In an episode of the popular American television show Mad Men set in a New York advertising firm in the 1960s, the family of the protagonist, Don Draper, goes for a picnic in the park. Once the picnic is over, Draper's wife Betty picks up the picnic blanket and shakes it out, spilling paper napkins, plates, drink bottles, and food waste out onto the grass, then folds the blanket and puts it away. She dusts off her hands and the family gets into their car leaving a littered field behind them. This shocking little detail reminds the viewer of the period the show is set in: environmentally friendly civic behaviours that are commonplace today-like being conscious of littering, eating local, or recycling—were once not.

The internet is the new green. The environmental rights movement raised consciousness about our relationship with, and effects on, the natural environment; and have demonstrated the interrelationships between actors like states, corporations, communities, consumers, and the law in matters of climate justice. Activists and advocacy groups in the tech-for-change and technology-activism

Information technologies are now part of the chemistry of activism. The struggle for digital sovereignty and freedoms online are not necessarily new; they are a continuation of existing political struggles. Movements and activisms for "internet freedom" or "digital access" should therefore not be isolated from movements and collective action in other areas such as SRHR.

The internet works in a manner inimical to access and voice: control exists in the very architecture of the systems that we believe enable freedom. Harassment, abuse, manipulation, exclusion, and discrimination—these experiences that we have known and experienced offline find their twins online.

sectors are doing something similar for digital technologies.

Surveillance, blocking and filtering, social media, "hashtag activism," phishing, scams, spam, viruses, online abuse, big data, leaks of personal data, privacy violations, and hacks have also entered a collective awareness of what it means to be online today. The internet works in a manner inimical to access and voice: control exists in the very architecture of the systems that we believe enable freedom. Harassment, abuse, manipulation, exclusion, and discrimination—these experiences that we have known and experienced offline find their twins online. Large parts of the internet belong entirely to corporations that users have no control over, though businesses profit from users. Governments control the infrastructure of the internet: electromagnetic spectrum, laws governing digital access, publishing policies, even malicious surveillance software that are sometimes deployed against citizen activists and journalists.

What does this mean for activism, political engagement, and human rights defense? What are the relationships and interdependencies influencing the promises of being online: voice,

visibility, and power? This ARROW for Change (AFC) issue on sexual and reproductive health and rights (SRHR) and the internet documents some of these dynamics.

Information technologies are now part of the chemistry of activism. The struggle for digital sovereignty and freedoms online are not necessarily new; they are a continuation of existing political struggles. Movements and activisms for "internet freedom" or "digital access" should therefore not be isolated from movements and collective action in other areas such as SRHR. This AFC is an attempt to narrativise sites of continuity, connection, and potential collaboration.

...Facebook, Instagram,
Twitter, and YouTube
are also sites of abuse
and harassment,
which affect women
and sexual minorities
disproportionately
compared to the other
populations online; and
yet these are not regulated
with quite the same vigour.

Speech Acts. A significant dynamic of the internet is the struggle to use it as a platform for speech and expression, sexual speech and content in particular. However, States and technology corporations emerge as partners in the regulation of sexual speech and content online. For example, as part of a wider suppression of LGBT communities, in February 2016, Indonesia's Communications Ministry banned gay emoji stickers in messaging applications like Line and WhatsApp, as well as on larger social media platforms.1 Other states in the region, anxious to maintain control through arbitrarily defined notions of "local culture," imposed bans and issued takedown notices to social media companies. Between July and December 2014, for example, the Ministry of Gender Equality and Family in South Korea asked Google to remove or age-restrict

...sexual health information is being censored, and nudity is being equated with pornography.

a total of 5,034 YouTube videos claimed to be "harmful" to youth with no definition of what was considered "harmful."²

Online Censorship³ is a project that documents removal of content by technology corporations that own popular social media platforms— Facebook, Google, Instagram, Twitter, and YouTube. The project's aim is to push for transparency in how speech is regulated online by these corporations. From November 2015 to March 2016, people submitted 186 reports of takedowns of their social media content on these five platforms. Of these, 89 are related to nudity concerns and primarily on Facebook. Some broad themes emerged from Online Censorship's early findings: sexual health information is being censored, and nudity is being equated with pornography.4

At the same time, Facebook, Instagram, Twitter, and YouTube are also sites of abuse and harassment, which affect women and sexual minorities disproportionately compared to the other populations online; and yet these are not regulated with quite the same vigour. Through these initiatives and highprofile cases of online harassment, there has been a mainstream discussion of its scale and effects.5 In 2014, research by Women, Action, and Media, in partnership with Twitter, demonstrated that in 800 reports of harassment, 27% were about hate speech, 12% about threats of violence, and 22% were to do with doxxing (uncovering details of the user's identity and location, and sharing this as an incitement to violence offline).6

In the past few years, there have been new guides and toolkits to help internet users mitigate harassment online. These resources typically give information and direction on how to manage abusive people and vulnerable spaces online. There are some initiatives that emphasise proactive responses to online harassment, de-emphasise "protection," and focus on claiming freedoms: feminist counter-

- 1 Associated Press, "Indonesia Bans Gay Emoji and Stickers from Messaging Apps," *The Guardian*, February 12, 2016, http:// www.theguardian.com/world/2016/feb/12/ indonesia-bans-gay-emoji-and-stickersfrom-messaging-apps.
- 2 Google Transparency Report, https:// www.google.com/transparencyreport/ removals/government/notes/?hl=en#autho rity=KR&period=all.
- 3 Online Censorship, https://onlinecensorship.org.
- 4 Jessica Anderson, Matthew Stender, Sarah Myers West, and Jillian C. York, Unfriending Censorship: Insights from Four Months of Crowdsourced Data on Social Media Censorship, Electronic Frontier Foundation and Visualising Impact, March 2016, https://s3-us-west-1. amazonaws.com/onlinecensorship/ posts/pdfs/000/000/044/original/ Onlinecensorship.org_Report_-31_ March_2016.pdf?2016.
- 5 For example, *The Guardian* recently analysed over 70 million comments in response to articles posted in a ten-year-period and showed how its female, LGBT, and Jewish writers were more regularly and consistently harassed online. See here: Becky Gardiner, Mahana Mansfield, an Anderson, Josh Holder, Daan Louter, and Monica Ulmanu, "The Dark Side of Guardian Comments," *The Guardian*, April 12, 2016, https://www.theguardian.com/technology/2016/apr/12/the-dark-side-of-guardian-comments.
- 6 J. Nathan Matias, Amy Johnson, Whitney Erin Boesel, Brian Keegan, Jaclyn Friedman, and Charlie DeTar, "Reporting, Reviewing, and Responding to Harassment on Twitter," Women, Action, and the Media, May 13, 2015. http://womenactionmedia.org/
- 7 See Gender and Tech Resources, "Complete Manual," https://gendersec. tacticaltech.org/wiki/index.php/Complete_ manual#Counterspeech for an extensive list of feminist counterspeech actions and projects.

- 8 Zero Trollerance, http://zerotrollerance.guru/.
- 9 Databite No. 6o: Caroline Sinders, YouTube video, 1:05:51, posted by "Data & Society Research Institute," January 26, 2016, https://www.youtube.com/ watch?v=eAnXylrfyR8.
- 10 Blank Noise, http://blog.blanknoise.org/.
- 11 Mick Hume, *Trigger Warning: Is the Fear of Being Offensive Killing Free Speech?* (UK: William Collins, 2015), 128-9.
- 12 BPF Online Abuse and Gender-Based Violence Against Women, "IGF 2015 Best Practice Forum: Online Abuse and Gender-Based Violence Against Women Report," GenderIT.org, January 12, 2016, http://www.genderit.org/resources/igf-2015-best-practice-forum-online-abuse-and-gender-based-violence-against-women-report.
- 13 APC, "Briefings on Technology-Related Violence against Women for the 29 Human Rights Council Session," GenderIT.org, June 17, 2015, http://www.genderit.org/resources/briefs-technology-related-violence-against-women-29-human-rights-council-session.
- 14 Michael Nunez, "Facebook Employees Asked Mark Zuckerberg If They Should Try to Stop a Donald Trump Presidency," Gizmodo, April 15, 2016, http://gizmodo. com/facebook-employees-asked-markzuckerberg-if-they-should-1771012990.
- 15 Nathan Olivares-Giles, "Five Things to Know About Facebook's Trending Controversy," *The Wall Street Journal*, May 10, 2016, http://www.wsj.com/articles/five-things-to-know-about-facebooks-trending-controversy-1462915385.
- 16 Dana Boyd, "Facebook Must Be Accountable to the Public," *Data & Society*, May 13, 2016, http://www.datasociety.net/ output/facebook-must-be-accountable-tothe-public/.
- 17 Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, 3, from: United Nations, "Freedom of Expression and the Private Sector in the Digital Age," OCHR, http://www.ohchr.org/EN/Issues/FreedomOpinion/Pages/Privatesectorinthedigitalage.aspx.

How can we rethink the role of these platforms and companies when they take credit for supporting popular uprisings around the world, and yet have no accountability to their users in the regulation of speech?

speech⁷ such as the Peng! Collective's Zero Trollerance campaign⁸ and Wikipedia's edit-athons. UX designer Caroline Sinders suggests that experimenting with platform design and architecture could enable more user control over harassment, and enable privacy.⁹ Blank Noise marries online and offline actions, creating innovative ways to rethink space and freedom.¹⁹

Recognising online harassment, particularly verbal harassment, raises a difficult and challenging issue: that labeling verbal material offensive, upsetting, hurtful, or harmful runs the risk of limiting someone's freedom of opinion and expression. The reasoning goes that identifying abusive words and language is entirely subjective, and that subjective interpretations cannot be used to police everyone. Michael Hume notes the culture of "trigger warnings" and "micro-aggressions" that he thinks limit speech:11

The notion that words can oppress makes a nonsense of the concept in the present and insults the struggles of the past.

Oppression involves the denial of equal legal and social rights to a group. It does not mean somebody being a bit rude or making you feel uncomfortable with the way they talk.... Words can be weapons in a battle of ideas or a slanging match. But words are not literally weapons with which to do violent harm, or magic spells with the power to oppress.

Hume makes it sound like thicker skin is required to be on the internet. However, the reality of being online is that it is not only about disagreeing about gendered pronouns; women who are online and are articulate about their opinions and views, like journalists and activists, also receive death and rape threats. Such threats cannot be considered as "free

speech" because they are violent, or incite violence.

Yet, how should speech and its reception be regulated? What is the role of technology companies in enabling freedom of opinion and expression, as well as freedom to be online? Organisations such as APC's Women's Programme actively lobby for both the Internet Governance Forum¹² and the Human Rights Council¹³ to engage with these questions by compiling feminist research and policy advocacy directions.

Private Control and Public Interest. The question of regulation of content online, and harassment, leads to questions of public interest in a privately-controlled internet. A leaked internal memo from Facebook revealed that employees asked if the platform had a role in "preven[ting] President Trump in 2017."14 Facebook is therefore aware of its power to curate content to shape public opinion—but who regulates Facebook in what opinions it decides to shape? In a parallel development, the recent revelation that Facebook actively curates its "Trending Topics" reveals something fairly banal save for the fact that the opacity of the company's workings makes the news special: online content is moderated and curated by people!15

There is a powerful role that technology corporations have in shaping this de facto public sphere, to which they are increasingly expected to be accountable, to some extent the ways in which news media are. How can we rethink the role of these platforms and companies when they take credit for supporting popular uprisings around the world, and yet have no accountability to their users in the regulation of speech? The Special Rapporteur on Freedom of Opinion and Expression frames the questions around private enterprise and its role in securing rights: 17

In digital environments, important questions about applicable law and the scope of private authority and public regulation cannot be avoided. Should these private actors have the same responsibilities as public authorities? Should their responsibilities derive from human rights law, terms of service, contractual arrangements, or something else? How should relationships

among corporate actors and States be structured? When faced with pressures to conduct their businesses in ways that interfere with freedom of expression, what steps should private actors take?

Private enterprise in the technology sector goes beyond creating platforms for speech and expression. Facebook is also a company that wants to bring internet access to poorer parts of the world, as in the case of Free Basics, a mission they were unable to accomplish¹⁸ because they violated the principle of net neutrality, that all content on the internet should be treated the same. Other technology companies also have similar missionary intentions. Google has Project Loon, which aims to partner with telecommunications companies in using balloons to bring WiFi connectivity.¹⁹ However, Google's acquisitions since 1999 indicates that it is no more just a search engine company: its acquisitions extend from longevity research labs, to mining the moon.20 Meanwhile, Bill and Melinda Gates has donated US\$11,316,324 to Microchips Biotech Inc. to develop a wireless-connected slowrelease contraceptive chip. Clinical trials will be conducted in the "developing world" in 2018.21

...as Amelia Abreu writes, the trendiness of personal quantification, driven primarily by white, middle-class men, suggests a "universalising aspect" in the search for data points. At the same time, the work that women do, such as caregiving, remains invisible despite the computing and technical power available in consumer technology applications.

Quantified Environments. The profitability of this privately-owned internet now comes from how effectively commercial applications can harness big data. Big data conceals significant

biases and inaccuracies²² and also enables a range of new services from taxi rentals and menstruation apps to dating sites. Relying heavily on users sharing personal information, it promises to make predictions expected to help advertisers, marketers, and governments alike to target products and policies, and to collect feedback about how these work, or not.

One growing market for personal data comes from the body itself; an example is the quantified self (QS) movement with the slogan "self-knowledge through numbers." 23 which relies on tracking sites, applications, and devices such as FitBits. According to QS enthusiasts, recording and analysing physiological and physical states can empower an individual to make healthy decisions. However, as Amelia Abreu writes, the trendiness of personal quantification, driven primarily by white, middle-class men, suggests a "universalising aspect" in the search for data points. At the same time, the work that women do, such as caregiving, remains invisible despite the computing and technical power available in consumer technology applications.²⁴

Self-quantification apps to monitor menstruation, fertility, and pregnancy aggregate large amounts of granular, personal data about sleep, appetite, digestion, hair quality, skin quality, motivation levels, productivity, and so on and so forth. In a personal interview, the lead developer of one such app said that his company does not sell personal data; in the interest of science, the company gives women's data to American universities citing the significant knowledge gap on menstruation and fertility.25 However, the developer's "generous" approach suggests an instrumentalisation of women's bodies. There is an unfortunately long and significant history to the use of women's bodies for scientific inquiry, from how Western scientific knowledge has been co-constituted with colonial rule,26 to the development of "cures" for women's "madness," such as clitoridectomies and cold showers.27

Abreu goes on to ask if quantification of everyday life can be a more "messy" space in which data may be in the hands of those who create it, and if it has any value in improving

- 18 Rahul Bhatia, "The Inside Story of Facebook's Biggest Setback," *The Guardian*, May 12, 2016, https://www.theguardian.com/technology/2016/may/12/facebook-free-basics-india-zuckerberg.
- 19 Project Loon, "How Loon Flies," https://www.google.com/loon/how/.
- 20 Anselm Franke, Stephanie Hankey, and Marek Tuszynski, eds. "The White Room" in *Nervous Systems* (Germany: Spector Books, 2016), 361-9.
- 21 "Microchips Biotech, Inc.," Bill & Melinda Gates Foundation, http://www.gatesfoundation.org/How-We-Work/Quick-Links/Grants-Database/Grants/2014/01/OPP1068198.
- 22 Julia Angwin, Jeff Larson, Surya Mattu, and Lauren Kirchner, "Machine Bias," *ProPublica*, May 23, 2016, https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing.
- 23 Quantified Self, http://quantifiedself.com/.
- 24 Amelia Abreu, "Quantify Everything: A Dream of a Feminist Data Future," *Model View Culture*, February 24, 2014, https:// modelviewculture.com/pieces/quantifyeverything-a-dream-of-a-feminist-datafuture.
- 25 Personal interview, Maya Ganesh, 7 January 2016.
- 26 Seth Suman, "Putting Knowledge in its Place: Science, Colonialism, and the Post Colonial," *Postcolonial Studies* 12, no. 4 (2009), 373-88.
- 27 Here's a good overview of this history: Jane Ussher, *Women's Madness: Misogyny or Mental Illness?* (Massachusetts: University of Massachusetts Press, 1992).
- 28 Amelia Abreu. "Quantify Everything."

- 29 UNGlobalPulse aims to make predictions about and understand the effects of natural disasters, disease outbreaks, other social calamities based on scanning and analysing social media data. See more here: http://www.unglobalpulse.org/.
- 30 Civicus, "DataShift," http://civicus. org/thedatashift/.
- 31 NoCeilings.org, https://noceilings.org.
- 32 Tin Geber, "Citizen-Generated Data Going Global: The DataShift Reunion," *The Engine Room*, May 10, 2016, https:// www.theengineroom.org/citizengenerated-data-going-global-the-datashiftreunion/.
- 33 For more information, see "Me and My Shadow: The Control of Your Data," https://myshadow.org/.

A politicised perspective on data use and applications, and from global feminist perspectives, is much needed.

the conditions of their lives.²⁸ A politicised perspective on data use and applications, and from global feminist perspectives, is much needed.

Big data is also shaping practices of development, through application across a range of civic technology projects, as well as the Sustainable Development Goals.^{29,30,31} There is still not enough robust evidence around if and how "big data for development" affects practices of NGOs and development actors, and what its impact will be on individual communities. We can now only ground what we think the challenges may be discursively,

such as the sensitivities of visibility and exposure—what is the tradeoff between knowing, monitoring, and managing progress, and the rights to privacy and protection for people? How does the use of data change how NGOs and states make claims to achieving targets more or less authoritatively based on large or small data?³²

Things would be simple if one could get off Facebook, if all transnational organising and mobilising could move to sustainable and freedom-friendly autonomous infrastructure owned and maintained by activists (some try to!), or if users had more agency. We do not always have the choice to opt out, though different choices can be made, with some investment.³³ In thinking through how we inhabit the internet, and practice our politics and activism through it, it is time to consider how we feel, and enable, responsibility for this shared space.

By **Maya Indira Ganesh,**Director, Applied Research, Tactical Technology Collective. Twitter: @mayameme.

spotlight

ONE AND THE OTHER:

Fighting Online Misogyny, Fighting a Corporatised Internet

- 1 Alex Hern, "Twitter CEO: We Suck at Dealing with Trolls and Abuse," *The Guardian*, February 5, 2015, https://www.theguardian.com/technology/2015/feb/o5/twitter-ceo-we-suck-dealing-with-trolls-abuse.
- 2 Caitlin Dewey, "Robin Williams's Daughter Zelda Driven off Twitter by Vicious Trolls," *The Washington Post*, August 13, 2014, https://www.washingtonpost.com/news/the-intersect/wp/2014/08/13/robin-williamss-daughter-zelda-driven-off-twitter-by-vicious-trolls/.
- 3 Alice Philipson, "Woman Who Campaigned for Jane Austen Bank Note Receives Twitter Death Threats," *The Telegraph*, July 28, 2013, http://www. telegraph.co.uk/technology/10207231/ Woman-who-campaigned-for-Jane-Austenbank-note-receives-Twitter-death-threats.

In 2015, Twitter underwent intense speculation about whether or not the internet's top source of news and commentary could survive its declining profitability. Many attributed this unpredicted stagnation to what former CEO Dick Costolo called "suck[ing] at dealing with abuse and trolls."

Feminists had been ringing the alarm around abuse on Twitter for years and the problem received attention for women like Zelda Williams² in the US and Caroline Criado-Perez³ in the UK. However, women around the world have experienced similar gender-based abuse on Twitter, though their stories have received

far less notice. For example, in 2012, Pakistani feminist Urooj Zia wrote about how her Twitter mentions were flooded with misogynistic attacks:

...threats of 'corrective rape' because I choose to tweet—just tweet—about issues such as childhood sexual abuse, sexual harassment, and other forms of sexualised violence.4

The Association for Progressive Communications (APC) documented 1,126 cases of online violence against women around the world between 2012 and 2014,5 and the numbers indeed show a systemic and serious problem. Thirteen percent of the cases involved physical harm, while a third involved emotional harm.

However, when we think about ending misogyny that happens specifically on the internet or via mobile phones, we need to concern ourselves less with the symptoms of the problem (i.e., how the abuse is specific to this particular medium), and more with how we can harness the power of the internet to tackle misogyny as a pervasive norm of gender power relations.

Gender and Online Speech. For women and queer people, the increased freedom of speech, facilitated by blogging and social media, meant talking about things otherwise forbidden in the mainstream. The EROTICS research⁶ in 2009-2011 looked specifically at examples of non-normative speech embedded within diverse discussion spaces like chat rooms, mailing lists, and forums. The factor of where the discussions happened was critical to shaping the politics of these discussions themselves. Where users felt confident about their anonymity, they could express themselves more freely. Where they felt confident about their privacy, they could opt in to mailing lists and proactively join communities. They could set up websites with information about sex education or safe abortion choices or LGBT meeting points. These were movements emboldened by a new freedom of speech that assumed privacy and security were built-in characteristics of the network.

However, today, these movements need to wage a struggle for the protection of a freedom of expression that encompasses non-normative sexual expression. This includes fighting against government surveillance and censorship that restricts sexual content, but is also increasingly about fighting corporate hegemony over the shaping of gender and sexuality discourse where the very design of technology is imposed by a neoliberal agenda.

The Privatisation of Online Forums.

Internet users grew from a little less than 1 billion in 2005 to almost 3.5 billion today. This increase, of course, is a good thing and access to the internet is certainly a feminist issue—particularly when women's

[APC] documented 1,126 cases of online violence against women around the world between 2012 and 2014, and the numbers indeed show a systemic and serious problem. Thirteen percent of the cases involved physical harm, while a third involved emotional harm.

rights and women's access to the internet is utilised to justify corporate access initiatives like Free Basics. However, the increase also meant more attractive market size and a race to monopolise functions like search engines, social networking, and content production.

When online discussion and meeting spaces are monopolised by the private sector, this poses significant threats to users' privacy, security, and ability to be anonymous. They become unable to negotiate and decide on the design and policies of their chat rooms, forums, and instant messaging groups. Rules of IRC7 rooms, for example, were set by their own communities, while rules of Facebook groups are set by the corporation. And because the primary interest of corporations is to gather more data in order to sell more advertising, the design and policies of these platforms are built to extract more and more "real" information from users: what they are thinking, doing, buying, with whom, and where.

A Neo-Liberal Selectivity of Sexual Speech.

When Google chose a rainbow-colored doodle for the Sochi Olympics, they were expressing a corporate interest in LGBT rights. They took a stand in the debate around hosting a global sports event in a country with antihomosexuality laws. Facebook took a similar stand in 2015 with its rainbow-colored profile photo filters amidst the US Supreme Court decision on same-sex marriage. This corporate declaration—and remember, it is these same corporations that now control most online interactions and discussion spaces—was clear in its legitimising of LGBT speech.

However, unlike the rainbow flag, other forms of sexual speech remain less welcome, such as Instagram's ban of Rupi Kaur's photos of

- 4 Urooj Zia, "She's Begging to be Raped—Twitterverse for Feminists in Pakistan!," GenderlT.org, December 17, 2012, http://www.genderit.org/ feminist-talk/shes-begging-be-rapedtwitterverse-feminists-pakistan.
- 5 Association for Progressive Communications, "Online VAW: Mapping," GenderIT.org, n.d., http:// www.genderit.org/onlinevaw/mapping/.
- 6 Jac sm Kee, Erotics: Exploratory Research on Sexuality and the Internet (Association for Progressive Communications, February 2010), https://www.apc.org/en/system/files/ Erotics_Exec_Summary.pdf.
- 7 Internet Relay Chat

- 8 Alexandra Brodsky, "Instagram Bans Photo for Showing Menstruation," Feministing, March 27, 2015, http:// feministing.com/2015/03/27/instagrambans-photos-for-showing-menstruation/.
- 9 Erica Schwiegershausen, "Topless Protesters Rally for Female Victims of Police Brutality," *NY Mag*, May 22, 2015, http://nymag.com/thecut/2015/05/ topless-women-protest-police-brutality.
- 10 BlackOUT Collective, Twitter, May 23, 2015, https://twitter.com/blackoutcollect/status/602212904205586432.
- 11 Association for Progressive Communications, "Online VAW: From Impunity to Justice," GenderIT.org, n.d., http://www.genderit.org/onlinevaw/.
- 12 Sophie Toupin and Alexandra Hache, "Feminist Autonomous Infrastructures," Global Information Society Watch, n.d., https://www.giswatch.org/en/internet-rights/feminist-autonomous-infrastructures.

women's periods⁸ and Facebook's ban of women's nipples during the Black Lives Matter⁹ nude protest¹⁰ in San Francisco. Google is yet to put out a doodle for International Safe Abortion Day.

In a similar vein, corporations—which we have now established take political stands when they suit them—have done little to support women who face misogynistic threats on their platforms. APC's Ending Violence Against Women Online research¹¹ (2013-2014) reviewed the policies of 22 companies and documented that none of the terms of services displayed public commitments to human rights standards nor prohibited threats of physical or sexual violence. However, advocacy on reforming corporate policies to regulate gender-based discrimination and violence alone is not sufficient to challenge the concession of control of our digital networks to corporations and monopolies.

Shortcuts and Movements. As such, our struggle to imagine a feminist internet (see Feminist Principles of the Internet 2.0) exists at various levels. The first is to use new technology for feminist expression, organising, and activism that also resists the politics that seek to exclude us from the public space. The second is to resist the takeover of our public spaces by corporate interests. A third is to develop feminist infrastructures, servers, and operating systems.12 Of course, it is important to hold corporations accountable for their policies because, yes, if a woman's video spreads on a social network without her consent, she has the right to delete it. We cannot, however, afford to forget that corporate control of our public online spaces will always privilege profit over users' rights.

There is no shortcut to ending sanctioned bigotry (like racism, misogyny, and queer

When Google chose a rainbow-colored doodle for the Sochi Olympics, they were expressing a corporate interest in LGBT rights....However, unlike the rainbow flag, other forms of sexual speech remain less welcome, such as Instagram's ban of Rupi Kaur's photos of women's periods and Facebook's ban of women's nipples during the Black Lives Matter nude protest in San Francisco. Google is yet to put out a doodle for International Safe Abortion Day. In a similar vein, corporations... have done little to support women who face misogynistic threats on their platforms.

bashing), even though technology inspires us to think of our actions in terms of shortcuts. There is no button under File > Settings and there is no decision taken in Facebook's boardroom that will fix the problem. There is only the long, laborious work of transformative real-world organising that would make patriarchy an obsolete world order. When our cultures and societies are more just, so too will this justice be reflected in the online domain, which is becoming increasingly less separable from Real Life.

By **Nadine Moawad**, a feminist from Beirut working on the intersections of gender, sex, and technology with the Association for Progressive Communications. Twitter: @nmoawad.

spotlight arrow for change vol. 22 no. 1 2016

Feminist Principles of the Internet 2.0¹³

Preamble. A feminist internet works towards empowering more women and queer persons—in all our diversities—to fully enjoy our rights, engage in pleasure and play, and dismantle patriarchy. This integrates our different realities, contexts, and specificities—including age, dis|abilities, sexualities, gender identities and expressions, socio-economic locations, political and religious beliefs, ethnic origins, and racial markers. The following key principles are critical towards realising a feminist internet.

1. Access

- **1.1 Access to the Internet.** A feminist internet starts with enabling more women and queer persons to enjoy universal, acceptable, affordable, unconditional, open, meaningful, and equal access to the internet.
- **1.2 Access to Information.** We support and protect unrestricted access to information relevant to women and queer persons, particularly information on sexual and reproductive health and rights, pleasure, safe abortion, access to justice, and LGBTIQ issues. This includes diversity in languages, abilities, interests, and contexts.
- 1.3 Usage of Technology. Women and queer persons have the right to code, design, adapt, and critically and sustainably use ICTs, and reclaim technology as a platform for creativity and expression, as well as to challenge the cultures of sexism and discrimination in all spaces.

2. Movements and Public Participation

- 2.1 Resistances. The internet is a space where social norms are negotiated, performed, and imposed, often in an extension of other spaces shaped by patriarchy and heteronormativity. Our struggle for a feminist internet is one that is a continuum of our resistance in other spaces, public, private, and in-between.
- **2.2 Transformative Space.** The internet is a transformative political space. It facilitates new forms of citizenship that enable

individuals to claim, construct, and express selves, genders, and sexualities. This includes connecting across territories, demanding accountability and transparency, and creating opportunities for sustained feminist movement-building.

2.3 Decision-Making in Internet Governance.

We believe in challenging the patriarchal spaces and processes that control internet governance, as well as putting more feminists and queers at the decision-making tables. We want to democratise policy-making affecting the internet as well as diffuse ownership of and power in global and local networks.

3. Economy

- **3.1 Alternative Economies.** We are committed to interrogating the capitalist logic that drives technology towards further privatisation, profit, and corporate control. We work to create alternative forms of economic power that are grounded in principles of cooperation, solidarity, commons, environmental sustainability, and openness.
- **3.2 Free and Open Source.** We are committed to creating and experimenting with technology, including digital safety and security, and using free and libre open source software (FLOSS), tools, and platforms. Promoting, disseminating, and sharing knowledge about the use of FLOSS is central to our praxis.

4. Expression

- **4.1 Amplifying Feminist Discourse.** We claim the power of the internet to amplify women's narratives and lives realities. There is a need to resist the state, the religious right, and other extremist forces who monopolise discourses of morality, while silencing feminist voices and persecuting women's human rights defenders.
- **4.2 Freedom of Expression.** We defend the right to sexual expression as a freedom of expression issue of no less importance than political or religious expression. We strongly object to the efforts of state and non-state actors to control, practice surveillance, regulate and restrict feminist queer expression on the

Notes & References

13 www.feministinternet.org

internet through technology, legislation or violence. We recognise this as part of the larger political project of moral policing, censorship, and hierarchisation of citizenship and rights.

4.3 Pornography and "Harmful Content."
We recognise that the issue of pornography online has to do with agency, consent, power, and labour. We reject simple causal linkages made between consumption of pornographic content and violence against women. We also reject the umbrella term of "harmful content" labeled to expression on female and transgender sexuality. We support reclaiming and creating alternative erotic content that resists the mainstream patriarchal gaze and locates women and queer persons' desires at the center.

5. Agency

- **5.1 Consent.** We call on the need to build an ethics and politics of consent into the culture, design, policy, and terms of service of internet platforms. Women's agency lies in their ability to make informed decisions on what aspects of their public or private lives to share online.
- **5.2 Online Violence.** We call on all internet stakeholders, including internet users, policy makers, and the private sector to address the issue of online harassment and technology-related violence. The attacks, threats, intimidation, and policing experienced by women and queers is real, harmful, and alarming, and are part of the broader issue of gender-based violence. It is our collective responsibility to address and end this.
- **5.3 Anonymity.** We defend the right to be anonymous and reject all claims to

- restrict anonymity online. Anonymity enables our freedom of expression online, particularly when it comes to breaking taboos of sexuality and heteronormativity, experimenting with gender identity, and enabling safety for women and queer persons affected by discrimination.
- **5.4 Privacy and Data.** We support the right to privacy and to full control over personal data and information online at all levels. We reject practices by states and private companies to use data for profit and to manipulate behavior online. Surveillance is the historical tool of patriarchy, used to control and restrict women's bodies, speech, and activism. We pay equal attention to surveillance practices by individuals, the private sector, the state and non-state actors.
- **5.5 Children and Youth.** We call for the inclusion of the voices and experiences of young people in the decisions made about safety and security online and promote their safety, privacy, and access to information. We recognise children's right to healthy emotional and sexual development, which includes the right to privacy and access to positive information about sex, gender, and sexuality at critical times in their lives.
- **5.6 Memory.** We have the right to exercise and retain control over our personal history and memory on the internet. This includes being able to access all our personal data and information online, and to be able to exercise control over this data, including knowing who has access to it and under what conditions, and the ability to delete it forever.

MINDING THE DATA GAP:

Data Risks and Revolutions in Meeting the Sustainable Development Goals

In May 2016, Melinda Gates announced that the Gates Foundation would donate US\$80 million to "close the data gap." In an animated video, Gates showed that the work done so far

for women's and girls' rights allowed them to "have a voice"; the challenge now was to make the invisible visible. "Simple things" like registering births and marriages can help spotlight arrow for change vol. 22 no. 1 2016

identify forced or underage marriages, says Gates, although others on the ground may differ. Similarly, tracking work and labour in a more granular manner can help identify the often invisible work that women do, and thus challenge wage gaps. She articulates her vision: "But imagine what more we could achieve for women and girls if we could tailor programmes and policies that meet their specific needs—similar to how Amazon and Netflix give us personalised book and film recommendations." The United Nations (UN), and Gates, refer to this as a "data revolution."

The data revolution will have a direct impact on the monitoring of progress towards achieving the Sustainable Development Goals (SDGs).⁴ This article focuses on the risks associated with the data collection needed to support the monitoring of indicators for the SDGs, in particular Goal 5, which addresses gender equality, and has diverse targets addressing violence against women, child marriage, sexual and reproductive health and reproductive rights, and economic equality.⁵ It also outlines some recommendations for SRHR organisations on addressing these risks.

Data Privacy Risks. There is scholarship looking at the potential positive outcomes of big data in development.⁶ Examples include the use of information collected from or shared via mobile phones to describe and predict health needs.

Indicators associated with the SDGs are not arbitrary metrics with no intrinsic value. What gets measured is often a key factor in determining what gets done. The indicators are likely to shape the development landscape for a number of years to come. Additionally, the indicators represent an opportunity to measure actual progress, and to hold governments accountable.

However, there are concerns around how implementing these technologies will affect the fragile balance of exposure and anonymity for people who have been marginalised in their societies. For example, *Data and Discrimination*, a collection of essays, documents the ways in which marginalised communities are affected by

large-scale data collection practices in the US across health, education, employment, insurance, and other industries. Recent work by Privacy International and Oxford Internet Institute detail concerns about data privacy and the surveillance, or "data-veillance," of marginalised communities that they foster. "Data-veillance" actually has a long history: it has been used by governments and colonial administrations since the late 1800s. 10

The data collection required for SDG indicators may pose risks to the security and human rights of the people whose data is collected. This could affect those who are already discriminated against or who engage in behaviours that may be criminalised, including people who use drugs, engage in same-sex sexual activity, or seek sexual health services. Health data, particularly where it relates to sexual or reproductive health, can be extremely sensitive. Some groups, including women and girls and sexual minorities, experience particular pressures from society, family, and more. Failure to properly safeguard the data collected may put them at risk.

To give an example, when information about people involved in a health project in Nigeria that included transgender people and Men Having Sex with Men (MSM) was somehow shared with law enforcement, some of those involved were forced into hiding. Others had to seek asylum abroad. In another case, during a study of one criminalised population in a Middle Eastern nation, law enforcement

The challenge we face is to safely manage collected data: limit who has access to the information, and ensure that it is collected and stored only in ways that protect the individuals involved. NGOs working on SRHR are well-positioned to help ensure that data is collected and stored with utmost respect for privacy and human rights.

- 1 Melinda Gates to: https://medium.com/@melindagates/to-close-the-gender-gap-we-have-to-close-the-data-gap-e6a36a242657.
- 2 Ibid
- 3 The UN data revolution includes a range of connected initiatives, many of which entail working with and improving national statistical organisations. For more information, take a look at their website: http://www.undatarevolution.org/catalog/2/.
- 4 UN member states have negotiated 17 Sustainable Development Goals with 169 targets addressing health, gender, climate, poverty, and more. See: https://sustainabledevelopment.un.org/post2015/transformingourworld.
- 5 Target 5.6 is "Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences."
- 6 Bellagio Big Data Workshop Participants, Big Data and Positive Social Change in the Developing World: A White Paper for Practitioners and Researchers (Oxford: Oxford Internet Institute, 2014), accessed July 1, 2016, http://www. rockefellerfoundation.org/uploads/files/ c220f1f3-2e9a-4fc6-be6c-45d42849b897big-data-and.pdf.
- 7 Seeta Peña Gangadharan, "Data and Discrimination: Collected Essays," Open Technology Institute, October 27, 2014, accssed July 1, 2016, https://www.newamerica.org/oti/policy-papers/data-and-discrimination/.
- 8 Privacy International, "Aiding Surveillance," n.d., retrieved from https://privacyinternational.org/?q=node/310.
- 9 Bellagio Big Data Workshop Participants, *Big Data and Positive Social Change*, 35.
- 10 Ibid.

- 11 "Did Anonymous Hack Turkish Hospitals Resulting in Massive Data Breach?," accessed July 1, 2016, https:// www.hackread.com/anonymous-hacksturkish-medical-institutions/.
- 12 "World's Biggest Data Breaches," Information Is Beautiful, accessed July 1, 2016, http://www.informationisbeautiful. net/visualizations/worlds-biggest-databreaches-hacks/.
- 13 DatACT: Data Protection in Anti-Trafficking Action, accessed July 1, 2016, http://www.datact-project.org/en/ materials/standards.html.
- 14 Karen Kaiser, "Protecting Respondent Confidentiality in Qualitative Research," Qualitative Health Research 19, no. 11 (Nov 2009):22
- 1632-1641, accessed July 1, 2016, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2805454/.
- 15 Iqra Basharat, Farooque Azam, and Abdul Wahab Muzaffar, "Database Security and Encryption: A Survey Study," *International Journal of Computer Applications* 47, no. 12 (June 2012): 28-34, https://www.researchgate.net/ publication/235992242_Database_ Security_and_Encryption_A_Survey_ Study.
- 16 Responsible Data Forum can be accessed at https://responsibledata.io/.
- 17 Data Shift can be accessed at http://civicus.org/thedatashift/.

demanded outright that the project organisers turn over the data which included sensitive information such as the locations of the homes of participants. These cases involved relatively small projects, but new international goals may demand a much larger-scale data collection on a global basis.

The challenge we face is to safely manage collected data: limit who has access to the information, and ensure that it is collected and stored only in ways that protect the individuals involved. NGOs working on SRHR are well-positioned to help ensure that data is collected and stored with utmost respect for privacy and human rights.

Melinda Gates would do well to also discuss how exactly Amazon and Netflix get those personalised recommendations: by collecting and buying vast amounts of personal information from users' digital behaviour across the internet—not just what users think they are telling these companies when signing up for their services. Commercial technology is now running on a business model that trades in personal data in exchange for advertising revenue. It is not clear yet how the personal information of at-risk populations will be safeguarded in the adoption of such practices.

In addition to this, recent high-profile security breaches give us ample reason to be skeptical of the security of electronic record systems. A breach here could place women and girls who seek reproductive services, especially abortion or family planning services as seen in Turkey, 11 at risk. Other recent breaches include: four million US federal employees' personal records were leaked in 2015; 5.5 million voters' data from the Philippines Electoral Commission; 37 million users' information on Ashley Madison, the extra marital affairs site; 4.7 million users on Snapchat in 2013; 3.9 million on Adult Friend Finder, the online dating site; and more. 12

Recommendations. How can SRHR advocates, researchers, and policymakers ensure that information about their staff and participants is not used against them?

We must anticipate how such information could be used to harm individuals and groups of people that may be targeted. It is therefore imperative to devise ways to separate the data As members of the development community, we must work to make the most of the opportunities and do what we can to reduce the risks. We cannot afford to miss the opportunity of experiences of SRHR NGOs informing the ongoing development of future good practices using technology.

from the individuals and thereby prevent data collected from being used against them. For example, DatAct developed a unique standard for data collection and protection based on research with sex workers, trafficked people, and migrants.¹³

Data collected for the SDGs must be handled using best practices for data collection, use, and storage. This includes collecting information about sensitive topics anonymously or using only unique identifier codes without names or other obvious identifying characteristics.14 Encrypting data is also now a critical part of protecting sensitive data online.15 The Data & Society initiative in the United States has a project looking at ethical use of social media and other "born digital" data already in the public domain in academic research. The Engine Room's Responsible Data Project¹⁶ and the partnership with Civicus on The Data Shift are useful reference points in this regard.¹⁷

There could also be an emphasis on impersonal indicators for monitoring and measurement, such as: "proportion of countries with laws and regulations that guarantee all women and adolescents access to sexual and reproductive health services, information and education (official records)." This should tell us which nations guarantee access to sexual and reproductive health services, and also indirectly confirm the absence of laws that prohibit or restrict access to SRHR services.

The problem is that while indicators may be impersonal, the data that generates these

may not be. Each data point may relate to an individual. So how would indicator 5.6.2, "the proportion of women (aged 15-49) who make their own sexual and reproductive decisions," be measured? It could be based on a review of laws and policies, including censorship of information about sexual and reproductive health, which would not reflect the lived realities of individual women. Alternatively, it might be based on surveys, perhaps collected

in health care settings, and case studies and input from women.

As members of the development community, we must work to make the most of the opportunities and do what we can to reduce the risks. We cannot afford to miss the opportunity of experiences of SRHR NGOs informing the ongoing development of future good practices using technology.

Notes & References

18 Acknowledgments: With additional inputs from Maya Indira Ganesh.

By Melissa Ditmore,

Consultant specialising in issues of gender, development, health, and human rights.

Email: mhd-arrow@taumail.com. 18

QUANTIFYING FERTILITY AND REPRODUCTION THROUGH MOBILE APPS:

A Critical Overview

Fertility awareness methods have been known and practised by women since antiquity, and were widely used in the 20th century until hormonal birth control methods suppressing or controlling menstruation were developed. Historically, monitoring fertility expanded on the personal knowledge of one's cycle and body, and has therefore been encouraged by some menstruation activists as a way to better understand and live their cyclic nature in a positive way.¹

Mobile applications can now take on the role of monitoring a woman's cycle² and are amongst the most popular health applications in app stores.³ This article reports on a preliminary investigation into mobile fertility and reproduction apps in terms of the data they collect, and analyses of what this means for women's health and rights in the context of quantified societies. There has been no previous attempt—known to us—to study women tracking apps in such a manner. We

consider this as an initial effort to explore the role of women's health applications in shaping the quantification of women's bodies.

Selecting the Apps. In researching these applications, we were faced with the difficult task of sampling the many apps available. The following criteria informed our selection:

- Apps that were available on Google Play (Android) and App Store (iOS);
- Apps that people around us mentioned that they were using;
- Apps that were being written about in mainstream technology publications;
- · Apps with a hardware component;
- Apps that tracked different aspects of the cycle (see the three types of apps we identified below), including some that are still in development; and
- · Apps that were used internationally.

- 1 See the writings of Deborah Lupton, or Tamara Slayton, Reclaiming the Menstrual Matrix: Evolving Feminine Wisdom: A Workbook (Petaluma, CA: Menstrual Health Foundation, 1990). For more about menstrual activism, see Chris Bobel, "From Convenience to Hazard: A Short History of the Emergence of the Menstrual Activism Movement, 1971-1992," Health Care for Women International 29, no. 7 (July 2008): 738-754.
- 2 This article uses the words "fertility" and "cycle" to refer to menstruation, as well as ovulation and fertility monitoring.
- 3 A study in 2016 identified 225 menstrual tracking apps in the Apple store. It also indicated that menstrual cycle monitoring apps were the fourth most popular health apps on the app store and the second popular among adolescent women. (Moglia Nguyen, et al., "Evaluation of Smartphone Menstrual Cycle Tracking Applications Using and Adapted Applications Scoring System," Obstetrics and Gynecology 127, no. 6 (Jun 2016): 1153-60, doi: 10.1097/AOG.000000000000001444.)

- 4 Baby Center exists on Free Basics (Facebook's free internet platform) and provides information to low income and 'low education' communities that have no access to the internet or information about health.
- 5 Users provide some data voluntarily (for instance weight, sexual history, sleeping and eating habits) but do not necessarily know what happens with it (for instance, whether it is sent to third parties). Although this information is stipulated in the privacy policy, including the use of data that is not consciously given away, like the metadata, most users do not read privacy policies and are therefore usually unaware of all the data they give away.

Based on these inclusion criteria, we identified three types of apps to research:

- Fertility apps that determine fertile days for women by tracking the menstrual cycle and indicating most fertile times;
- Pregnancy apps that monitor physiological states, habits, mood, foetal movements, and heart rates, and that intend to promote a healthy and safe pregnancy and birth; and
- Menstruation apps that allow users to track menstrual flow, provide reminders, and monitor gynecological health in order to identify abnormalities, infections, and potential risks.

We also decided that including apps offering a hardware component is significant in exploring how companies track and collect data directly from women's bodies. Apps such as Kindara (starting shipment in fall of 2016) and the First Response Bluetooth Pregnancy Test, and some menstruation apps are just a few applications that rely on hardware elements.

The applications we selected are the following: Baby Center, Clue, First Response, Glow, Kindara, Looncup, my.Flow, NextGen Jane, Ovia, and Trackle.⁴

Investigating the Apps. Once the apps were selected, we asked three sets of questions of them that would allow us to map the context of their production, functioning, and data re-use and sharing.

The amount of data and metadata collected by these applications has allowed for the quantification of women's bodies on a scale not evident anywhere before... At a time where data privacy has become a mainstream discussion, these applications are collecting data at a high rate and sharing it with mostly invisible third parties.

...that knowledge about women's bodies belongs to science is a problematic idea, one that instrumentalises women's bodies, and that has an unfortunately long history.

- Background Information: How and where it was developed, by whom, and the legal and policy environments around data protection in those locations;
- Business Model (How is the data used?):
 A list of potential data points that a user knowingly, and unknowingly, submits; and
- Data Collection and Privacy Policies: What the company says is done with the data submitted.

The complete list of data collected about these apps can be viewed in the table accompanying this article.

What We Found. The amount of data and metadata collected by these applications⁵ has allowed for the quantification of women's bodies on a scale not evident anywhere before. We found that some of these applications collected data on the private aspects of a woman's life, such as sexual intercourse, eating, drinking, smoking habits, mood, and work productivity. Others used hardware to get instant readings directly from a woman's body, including blood quality.

At a time where data privacy has become a mainstream discussion, these applications are collecting data at a high rate and sharing it with mostly invisible third parties. This raises concerns particularly when the data is shared with medical clinics and research centres.

It is the general claim by these companies that the gathering of data about menstrual cycles would enable scientific progress and empower women. Clue, for example, says that their data is not sold to third parties, and that it is, instead, given to public health researchers at Ivy League universities in the United States: "Your anonymous cycle data may be used when Clue collaborates with clinical and academic researchers. Clue may publish

...what [does] this mass quantification of a women's bodies [mean] for the creation of new normals, new standards for reproductive and gynecological indicators based only on those women who have access to these apps, and those who bother to use them[?]

the results of academic, clinical, or internal research in the form of data visualisations or text findings."⁶

Implicit in this is the assumption that these centres will know what to do with the data, as opposed to some other organisation elsewhere in the world. Additionally, that knowledge about women's bodies belongs to science is a problematic idea, one that instrumentalises women's bodies, and that has an unfortunately long history. The involvement of medical advisory boards, or clinics and researchers, is a key element that needs to be further scrutinised. We question how the data will be used by the researchers and clinics and what their output is.

Beyond the data collection and sharing, we are concerned with the algorithms⁷ being employed to process the data collected through these apps. As Ben Williamson writes: "The algorithms installed in health tracking devices act to translate physiological signals recorded from the body into data, presented as numbers and visualisations, that enable this kind of bodily self-governing to take place." 8

That governance of the information presented to women as a result of algorithmic processing can transform the way women relate to their health. Subsequently, we searched for information about the

algorithms running these apps but found little data. The lack of transparency about algorithms and their role in women's health and cycle monitoring apps, including those claiming they can be used as a hormone-free contraception, raises an alarming issue that we argue needs to be further studied. We need to better understand how these algorithms dictate what information women consume about their bodies.

Data from millions of women who are using these apps are used to develop a 'normal' standard of healthy female cycles, drawing on the data of the users—mostly American and European white women. This leads to the significant question of what this mass quantification of women's bodies means for the creation of new normals, of new standards for reproductive and gynecological indicators based only on those women who have access to these apps, and those who bother to use them.

The details of the apps are available on company websites and in media articles, including data sites. Other questions are harder to find answers to, but do need to be explored from a feminist perspective such as, how and if intimate forms of quantification shape the relationship with the body, how do we come to perceive and accept it, how do we deal with its changes and breakdowns, and the kinds of control we (or others) gain or lose. Finally, do these technologies put more agency and control back in women's power, or do they persist in distancing us from knowing our bodies and ourselves?

...do these technologies put more agency and control back in women's power, or do they persist in distancing us from knowing our bodies and ourselves?

- 6 The Clue Privacy Policy can be found here: https://www.helloclue.com/privacy.html.
- 7 "The term 'algorithm' refers to any computer code that carries out a set of instructions. Algorithms are essential to the way computers process data. Theoretically speaking, they are encoded procedures which transform data based on specific calculations." "Ethics of Algorithms," Centre for Internet and Human Rights, https://cihr.eu/eoazo15web/.
- 8 Ben Williamson, "Algorithmic Skin: Health-Tracking Technologies, Personal Analytics, and the Biopedagogies of Digitised Health and Physical Education," *Sport, Education and Society* 20, no. 1: 133-151, doi: 10.1080/13573322.2014.962494.
- 9 Acknowledgment: With inputs from Maya Ganesh.

Арр	Fertility Monitoring App	Pregnancy App	Menstruation App	Baby App	What Does the App Do?	How Different Is This App from Others?	What Is the Team Profile?	Where Is the Company Based? ¹⁰	What Language Is the App Available in?	How Many Users? [Some of the data is provided by the company and some available by Google Download numbers (these are not verified).]	The Year the App Was Launched	Does the App Have Any Hardware Component?
Baby Center (My Pregnancy & Baby Today app)	x		x	x	Baby Center is an organisation that provides information on fertility, pregnancy, and raising children. They have two mobile apps, one on pregnancy and the baby's first year, another on raising toddlers and children.	They are available on Free Basics in a number of countries. The service provides health information to women about stage-based pregnancy and babies. They also provide timed expert advice throughout the different stages of pregnancy and the baby's first year.	Majority of the management team is female. All health information is approved by the Baby Center Medical Advisory Board.	USA, with international offices. It is a member company of Johnson & Johnson.	English and four other languages	Company claims to reach 45 million parents a month with over 300 million moms worldwide using the mobile app.	The site was launched in 1997.	No
Clue	х				Digital version of the fertility awareness calendar method of tracking one's cycle. Claims to be "beautifully scientific."	It "helps simplify" the long existing but complex to use calendar method.	Three of the four founders are men. They are entrepreneurs, a physicist, and tech specialists.	Berlin, Germany	English and four other languages (German, French, Spanish, Danish)	According to Google Play, it has 5 to 10 million users.	2013	No
First Response	х	x	x		An app that tracks the menstrual cycle and indicates when a woman is fertile. It also includes a pregnancy test.	A pregnancy test that connects with the mobile app via bluetooth. That way results are recorded securely on the app.	It is unclear from the site who the management is. However, they are a product of Church & Dwight Inc. Some women's health are part of the team.	USA, Canada	English, French	On Google Play: 100,000 to 500,000 users.	Unclear	Yes
Glow	x	x	x	x	Glow has developed four different apps to track a woman's cycle, fertility, pregnancy, and the baby's development within the first year. The applications are available on Apple's App Store and Google Play.	There are two unique concepts about Glow. First, they have the Glow First Trust that allows people to pay \$50 for 10 months during the trial period and if the woman does not become pregnant, Glow First supports the couple in IVF treatment. The second is that it also tracks male fertility and boasts to be the only app that does so on the market. It is unclear how the tracking is done.	The head of marketing and partnerships are women. Both the Chairperson and CEO are men, and the Chair is the head of HVF that rely on data as the core of all their products.	San Francisco, USA and Shanghai, China	English	For the ovulation and fertility apps, there are 1 to 5 million users on Google Play. The pregnancy tracker has 100,000 to 500,000 users.	2013	No

¹⁰ This is linked to the data and privacy laws and regulations the company abides by. Some countries have stricter privacy laws than others.

Арр	Fertility Monitoring App	Pregnancy App	Menstruation App	Baby App	What Does the App Do?	How Different Is This App from Others?	What Is the Team Profile?	Where is the Company Based?10	What Language Is the App Available in?	How Many Users? [Some of the data is provided by the company and some available by Google Download numbers (these are not verified).]	The Year the App Was Launched	Does the App Have Any Hardware Component?	
Kindara	x				Kindara is a fertility application that also uses an oral thermometer that is in sync with the application. Their goal is to provide women with accurate information based on the fertility chart system.	The unique element is that the thermometer is connected to the application that charts fertility.	The co-founder is female. However, she is no longer part of the company. The management team has an equal number of men and women. The advisors include many enterpreneurs, fertility experts, and one medical doctor.	Denver, USA	English	On Google Play, there are 100,000 to 500,000 users.	Beta testing; hardware will start shipping in Fall of 2016.	Yes	spotlight
Looncup			X		The smart menstrual cup measures the blood flow and tells when the cup is full by a nudge or by sending bluetooth messages to the user's mobile phone. It also analyses the blood volume and colour during menstruations, as well as analyses the woman's cycle.	The menstrual cup indicates by a nudge that it needs to be emptied, and it enables women to analyse the volume and colour of their blood. The company plans to develop a feature to track ovulation.	It is not clear but one of the co-founders is a woman.	USA	Unclear— app in development	Kickstarter campaign only	2015 (cup produced in 2016)	Yes	
my.Flow			X		A tampon monitor linked by bluetooth to their mobile phone during their periods tells the users when their tampon is full, as a "solution for menstruation mortification." It also predicts the menstruation quantity and the number of days the period will last.	The tampon communicates via bluetooth with women so that they don't feel ashamed again of having bloodstains on their clothes because of changing their tampon too late.	Very young team (official website linked to their LinkedIn profiles), just graduated from Berkeley. Half are women.	California, USA	Unclear— app in development	No users yet	2015	Yes	arrow for change vol. 22 no. 1 2016

arrow for change vol. 22 no. 1 2016

spotlight

Арр	Fertility Monitoring App	Pregnancy App	Menstruation App	Baby App	What Does the App Do?	How Different Is This App from Others?	What Is the Team Profile?	Where Is the Company Based? 10	What Language Is the App Available in?	How Many Users? [Some of the data is provided by the company and some available by Google Download numbers (these are not verified).]	The Year the App Was Launched	Does the App Have Any Hardware Component?
NextGen Jane			The tampon monitors the female body and analyses blood during menstruations. However, it is still unclear how and whether it also analyses blood during the rest of the month.		The product will monitor the female body and measure many things including hormone rates, STIs, endometriosis, iron deficiency, cervical cancer, metabolism/TSH, vitamin D deficiency, diabetes, and folic acid deficiency, among others.	The app would monitor the body and test the blood on a daily basis, instead of doing yearly check ups at the doctors or a laboratory.	Biology and business. One of the two founders is a woman. Most of the members of the scientific advisory board are men.	USA	English only	Still in development.	2014	Yes
Ovia - fertility and pregnancy (2 apps)	X	x			Ovulation calculator and period tracker "helps user conceive up to 3x faster." The pregnancy app sends alerts when dangerous symptoms are tracked. It also provides information to women about the pregnancy.	The fertility app claims to exceed traditional methods like fertility charting because of the accuracy of the algorithm developed, which also works in the case of irregular periods. The pregnancy app sends alerts to women when potentially dangerous symptoms are recorded. Both apps enable users to set personal goals (e.g., sleeping, eating habits, weight).	The website claims to have scientists and doctors in the team, including Harvard scientists and fertility experts. The majority of team members are women.	Boston, USA	English only	The company claims to have 3 million users. Google Play has 500,000 to 1 million downloads of the ovulation and period app, while there are between 500,000 to 1 million downloads for the pregnancy app.	Pregnancy app— September 2013. Fertility app—2014.	No, but it is possible to connect a wearable fitness device to the account.
Trackle	x				The app measures the vaginal temperature every night and determines the menstrual cycle. It can be used as a contraception method.	The vaginal thermometer, worn every night by the users, measures the inner temperature continuously. It is meant to be much more accurate than external thermometers and used as an effective contraception method, or a fertility method.	One founder is a woman. Profile of the team includes business and IT backgrounds.	Germany	German	The app is sold with the hardware. There is no information on Google Play.		Yes, vaginal thermometer.

				Table 2. 1	Business Model:	How Is the Data	Used?		
Арр	Does the App Offer the Services for Free or for a Fee?	Do They Receive Funding from Foundations or Venture Capitalists? (Source: CrunchBase)	Do They Have a Unique Business Model?	With Whom Is the Data Shared ?	Is the Data Shared with Labs/Medical Facilities/ Reproductive Health Specialists?	Is the Information Shared with Insurance Companies or Doctors?	Do They Have a Privacy Policy and Terms of Services?	Is Targeted Advertisement Displayed?	Is There Any Text Dealing with the Security of the Data and Data Storage? Anything Specific?
Baby Center (My Pregnancy & Baby Today app)	Free	They are part of a larger company.	They sell products, ads for products, and are part of a larger company.	Marketers, employees, contractors, law enforcement, and third party platforms	Not specified	Not specified	Yes (detailed one)	Yes, with an option to opt out	Yes
Clue	Free	Yes, \$10 million.	It is possible to use the app without an account.	Academic and clinical research	Yes	No	Yes	No	The data can be stored in the device (without an account), or on Clue servers (with an account). Account data is stored separately from cycle data. Password stored using one-way encryption. The cycle data is stored separately from the personal data. Usage data is stored on third party services provided by Google and Localytics. The privacy policy is not very detailed; it does not mention cookies, nor to which third parties the data may be transmitted.
First Response	Unclear; app is sold with the hardware	They are a product of a larger company.	They sell the hardware component.	Marketers, researchers, clinics, service provides, credit bureaus, and mobile providers	Yes it is shared with third party researchers, potentially laboratories	Yes, to doctors	Yes	Yes, but can opt out of some of the services	Yes
Glow	Free	Yes, \$24 million.	Premium services. Users pay to receive further information and analysis on their health.	Glow shares aggregated and anonymous data to third parties, employees, affiliates, vendors, partners, and law enforcement when requested. It is unclear who the third parties are.	Not specified	Not specified	Yes	Yes	

Арр	Does the App Offer the Services for Free or for a Fee?	Do They Receive Funding from Foundations or Venture Capitalists?	Do They Have a Unique Business Model?	With Whom Is the Data Shared ?	Is the Data Shared with Labs/Medical Facilities/ Reproductive Health Specialists?	Is the Information Shared with Insurance Companies or Doctors?	Do They Have a Privacy Policy and Terms of Services?	Is Targeted Advertisement Displayed?	Is There Any Text Dealing with the Security of the Data and Data Storage? Anything Specific?	
Kindara	Free	They have received investments from venture capitalists	Selling the hardware component	With enabling service such as use of website or website host, public forums (based on the users postings), law enforcement, third party that involve purchases	Yes it is shared with third party researchers, potentially laboratories	Researchers	Yes	Yes, but can opt out	Yes	
Looncup	No information	Kickstarter campaign	No information	No information	No information	No information			No; no website	
my.Flow	No information	More than \$100,000 seed funding	No information	No information	No information	No information	No	No information	No	
NextGen Jane	No information	\$2.32 million	No information	No information	No information	No information	Yes	No information	No information	
Ovia	Free	Yes, at least \$3 million ¹²	Premium service, subscription service	"- Academic and clinical research, medical facilities - journalists - other third parties - the user's partner - if opted for: with the user's insurance provider, doctors, or health specialists"	Yes	Yes, if opted for; insurance companies are pushing for it ¹³	Yes	Yes		
Trackle	Free	Yes	Yes	Not clear	Not clear	Not clear	No	No information	No	

Notes and References

¹² Janelle Nanos, "Ovuline Raises \$3.2M to Help Even More Women Make Even More Babies," Beta Boston, May 22, 2015, http://www.betaboston.com/news/2015/05/22/0vuline-raises-3-2m-to-help-even-more-women-make-even-more-babies/.

John Tozzi, "Your Health Insurer Wants to Know Exactly When You Get Pregnant," Bloomberg, May 27, 2015, http://www.bloomberg.com/news/articles/2015-05-26/your-health-insurer-wants-to-know-exactly-when-you-get-pregnant.

Арр	What Other Types of Data Are Collected?	Personal Information ¹⁴	Payment Information ¹⁶	Cookies and Third Party Trackers ¹⁷	Third Party Platforms (Social Media) ¹⁸	App Usage ¹⁹	Private Information (E.g., Sexual Intercourse, Hours of Sleep, Mood) ²⁰	Body Temperature	Cycle Information	Blood Quantity/ Analysis	Number of Hours Slept	Drinking and Eating Habits (Including Alcohol and Cigarette/ Tobacco Consumption)	Cervical Fluid	Due Date
Baby Center (My Pregnancy & Baby Today app)	Metadata	Yes	Yes	Yes and blocks Do Not Track add-ons	Yes, but not necessary	Yes	Yes							
Clue	If using Clue without an account, the cycle data is only stored in the device. Clue can also provide a backup.	Yes	No	No information	No information in the privacy policy	Yes, even when using the app without an account	No	Yes	Yes	No	Yes	Yes	Yes	Yes
First Response Pregnancy Pro Test		Yes	Yes	Yes, but can opt out of Google Analytics	Yes	Yes	Yes	No	Yes	No	No	No	Yes	
Glow		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	
Kindara		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		Yes	
Looncup	Quantity of blood, colour of blood	No information	No information	No information	No information	No information	No information	No	No information	No information	No information	No information	Unclear	No information
my.Flow	No information available	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information
NextGen Jane		Yes¹5	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information
Ovia	"When using the website: metadata, activities, preferences, transational data. When using the app: personal information, information shared with social media, reproductive health info, daily health tracking, and aggregate activity information."	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Trackle	Temperature, and input from users	No information	No information	No information	No information	No information	No information	Yes	Yes		No information	No information	No information	No information

Notes and References

- 14 Personal Information: Information that would identify you as an individual, such as your name, communication channels such as email and mobile number, gender, age, or birthdate. Certain apps may request further information such as occupation, zip code, and social security number.
- 15 When there is not enough information available (app and website still in development), but the app description and goals let us assume that the answer to the question will very probably be YES, we highlight the box. It remains our assumption.
- 16 Payment Information: The user will have to provide credit or debit information, including banking details which also includes address, zip code, and cv number.
- 17 Cookies: Cookies are small pieces of data or a simple text file sent from the website and stored in the user's web browser. They collect the type of browser, login details, pages visited, page layout, font size, and more. Be aware of third party trackers.
- 18 Third Party Platforms: This is information the app requests when logging through third party platforms such as Facebook, Twitter, Google, and/ or Apple Health kit of Google Fit. That information can include profile details, contacts, photos, pages liked, among others.
- 19 App Usage: App usage includes any information on a user's behaviour on the app, e.g., content viewed, clicks, length of time spent on pages, transaction details, and others.
- 20 Private information is information about a person's sexual history and relationships, mood, hobbies, among others.

APPS, DRONES, AND ITUNES:

Opportunities and Challenges in Using New Technologies for Safe Medical Abortion Services

Notes & References

- 1 Iqbal Shah and Elisabeth Ahman, "Unsafe Abortion: Global and Regional Incidence, Trends, Consequences, and Challenges," Journal of Obstetrics and Gynaecology Canada 31, no. 12 (Dec 2009): 1149-58, https://www.researchgate.net/ publication/41087785_Unsafe_Abortion_ Global_and_Regional_Incidence_Trends_ Consequences and Challenges.
- 2 World Health Organization, "Unsafe Abortion Incidence and Mortality: Global and Regional Levels in 2008 and Trends during 1990-2008" (2012), http://apps. who.int/iris/bitstream/10665/75173/1/ WHO_RHR_12.01_eng.pdf.
- 3 United Nations Commission on Economic, Social, and Cultural Rights, "General Comment No. 14. The Right to the Highest Attainable Standard of Health," UN doc E/C.12/2000/4 at para. 12 (Aug. 11, 2000). International Covenant on Economic, Social and Cultural Rights, Dec. 16, 1966, 993 U.N.T.S. 3, (entered into force Jan. 3, 1976).
- 4 Dorothy Shaw, "Abortion and Post-abortion Care—Volume II" *Clinical Obstetrics & Gynaecology* 24, no. 5 (October 2010): 633-646.
- 5 United Nations Commission on the Elimination of All Forms of Discrimination Against Women, "General Recommendation No. 24: Women and Health," UN Doc. A/54/38/Rev.1 at paras. 11, 14, 23 (1999).
- 6 Ibid., note 6.
- 7 United Nations, Programme of Action of the International Conference on Population and Development, para. 8.25.1, accessed February 1, 2014, http:// www.un.org/popin/icpd/conference/ offeng/poa.html.
- 8 "Preventable Maternal Mortality and Morbidity and Human Rights." Human Rights Council Eleventh Session Resolution, accessed February 1, 2014, http://ap.ohchr.org/documents/E/HRC/ resolutions/A_HRC_RES_11_8.pdf.

Each year, approximately 21.6 million women worldwide still undergo an unsafe abortion. This results in an estimated 47,000 deaths, largely amongst the most vulnerable women, such as the poor, the unmarried, and the young women.^{1,2}

The right to health has been recognised in numerous international human rights treaties.^{3,4} Access to health services without discrimination, including safe abortion services, is an essential component of the rights to health and equality under international law.^{5,6,7,8,9}

Medical abortion is widely regarded as having significantly improved access to safe abortion. It is safe and effective, with few serious complications and success rates of 98%.¹⁰ Research has shown that the administration of medical abortion by women themselves in settings with restrictive abortion laws has led to decreased morbidity and mortality in countries where abortion is illegal.¹¹

This article tells the story of how Women on Waves and Women on Web¹² are using the advances of new technology in communication and advocacy campaigns to break taboos around abortion, to raise awareness about the consequences of illegal abortion, and at the same time to provide

Research has shown that the administration of medical abortion by women themselves in settings with restrictive abortion laws has led to decreased morbidity and mortality in countries where abortion is illegal.

services to make sure women actually have access to medical abortions.

Women on Waves. Women on Waves is a Dutch women's rights organisation that for the past 15 years has used various strategies, tools, and technologies to ensure that women have information about and access to safe medical abortion. These include ship campaigns, safe abortion hotlines, telemedicine, scientific research, and, beginning in 2015, an app and even drones.

Women on Waves is most known for its "ship campaigns" to countries where abortion is illegal. After taking women on board in local harbours, the specially-equipped ship sails to international waters where it can provide legal and safe medical abortion services. On the invitation of local women's organisations, Women on Waves had set sail to Ireland (2001), Poland (2003), Portugal (2004), Spain (2008), and Morocco (2012), which created public interest and media coverage around the world. In Portugal, the campaign catalysed the legalisation of abortion in February 2007.

Since 2008, Women on Waves has also initiated safe abortion hotlines and trained women's organisations in Africa, Asia, and South America. Using mobile phones, the local women's organisations provide women with unwanted pregnancies with information about the most effective use of misoprostol to induce a safe abortion.

Providing information about misoprostol for abortion falls under the right to freedom of information, which is protected by several human rights agreements and by the constitution in most countries.¹³

Women on Web. The internet is a primary health information source, especially for individuals who lack access to traditional

The internet is a primary health information source, especially for individuals who lack access to traditional sources of health information, require confidential and timely access to information, and seek services outside of their communities.

sources of health information, require confidential and timely access to information, and seek services outside of their communities. In response to the many emails with requests for help from women all over the world, Women on Web was initiated 10 years ago.

Women who need access to safe medical abortion can have an online consultation on the Women on Web website. If there are no contraindications, the doctor provides the women with a medical abortion by mail. Women are requested to make a voluntary donation to cover the costs of the service, but if a woman has no financial means, she will always receive help. The doctors are supported by a multilingual helpdesk who answer almost 100,000 emails per year in 15 different languages.

Women on Web has supported more than 45,000 women obtaining access to safe medical abortions.

Thousands of women have posted their abortion stories on the "I had an abortion" part of the website. By sharing their stories, women help to break the taboo and support other women who need an abortion.

A woman from Egypt writes, "I was traumatised at first, [but] relieved when I knew it's all over and felt that I have been granted a new life."

A woman from Indonesia says, "No matter how uneasy that was for me, I am certain that this was the good thing to do."

Scientific research by Women on Web demonstrates that outcomes of services provided through telemedicine are

comparable with results reported in studies on medication abortion in outpatient settings. 14

Access to Safe Abortion through the Internet: Fighting Censorship. In the last few years, there has been an exponential growth in the number of websites offering medical abortions online. Some of these online initiatives are spam, and some deliver the real medicines. Thus, the main challenge for women is to find reliable sources, but this is frustrated by internet censorship. In a country like Saudi Arabia, for example, access to the Women on Web website is blocked.

Moreover, organisations that mediate access to internet and online services like Facebook, Google, and iTunes also create obstacles. In 2008, for instance, Women on Waves received notice that Google would no longer accept ads that promote "abortion services," which include, but are not limited to, abortion clinics and abortion counselors. The Women on Waves' advertisement was subsequently removed. Additionally, in January 2012, Facebook removed the profile picture of Dr. Rebecca Gomperts, director of Women on Waves, which contains information about how women can safely do abortions themselves using misoprostol. After filing a complaint, the picture was posted again.

The most recent example is the rejection of the Safe Abortion App on the iTunes store.

...the main challenge for women is to find reliable sources, but this is frustrated by internet censorship. In a country like Saudi Arabia, for example, access to the Women on Web website is blocked. Moreover, organisations that mediate access to internet and online services like Facebook, Google, and iTunes also create obstacles.

- 9 United Nations Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health, A/66/254, accessed February 1, 2014, http://www.un.org/News/Press/ docs/2011/gashc4018.doc.htm.
- 10 World Health Organization, Safe Abortion: Technical and Policy Guidance for Health Systems, 2nd edition (Geneva: WHO, 2012), http://apps.who.int/iris/bitst ream/10665/70914/1/9789241548434_ eng.pdf.
- 11 Joanna N. Erdman, "Harm Reduction, Human Rights, and Access to Information on Safe Abortion," *International Journal* of Gynecology and Obstetrics 118, no. 1 (2012): 83-86.
- 12 Women on Waves can be accessed at http://www.womenonwaves.org while Women on Web is at http://www.womenonweb.org.
- 13 United Nations, "Article 19 of the Universal Declaration of Human Rights," accessed at http://www.un.org/en/universal-declaration-human-rights/.
- 14 Rebecca J. Gomperts, et al., "Using Telemedicine for Termination of Pregnancy with Mifepristone and Misoprostol in Settings Where There Is No Access to Safe Services," *BJOG: An International Journal of Obstetrics and Gynaecology* 115, no. 9 (Aug 2008): 1171-5.

- 15 The Women on Waves app can be found here: https://play.google.com/store/apps/details?id=org, womenonwaves.app, while it can also be accessed through iTunes here: https://itunes.apple.com/us/app/safe-abortion/id983610139?mt=8.
- 16 "Abortion Drone; First Flight to Poland," Women on Waves, http://www. womenonwaves.org/en/page/5636/ abortion-drone--first-flight-to-poland.
- 17 Kate Knibbs, "Abortion Drone Is the Best Drone," http://gizmodo. com/abortion-drone-is-the-bestdrone-1713388194.

In 2014, Women on Waves and Women on Web made an app that gives country- and language-specific information about unwanted pregnancy and medical abortions for women and health workers around the world. The app demonstrates, through an animated film, how to carry out a medical abortion with misoprostol, and offers online consultations with Women on Web.

Only after filing an appeal was the app released, a year after it was first submitted to iTunes. Women and healthcare providers can now download the app in the Google Play Store and iTunes. Within a year, the app has had between 1,000 and 5,000 installs from the Google Play Store and received a 4.3 star rating (out of 5 possible stars).

New technologies have a great potential to advance women's human rights, but also pose challenges and demand a persistent navigation of restrictive guidelines and policies from governments and companies that mediate the access to these new technologies.

The Abortion Drone. Drones are small aerial vehicles that can be remotely controlled and used for a number of purposes, including aerial photography or delivery of packages.

Thanks to recent improvements in the range and flight time of drones, Women on Waves finally launched the "abortion drone" in June 2015. The abortion drone departed from Germany and delivered abortion pills at the opposite side of the river in Slubice, Poland.

While the drones were crossing the German/Polish border, the German Police intervened. The drone pilots were able to safely land the drones at the Polish side, and two Polish women were able to take the abortion pills. However, the German police confiscated the drone controllers and personal iPads, as they claimed that there was a violation of pharmaceutical regulations.

The abortion drone campaign was a collaboration between Women on Waves and the local Polish women's organisations. 16 The campaign's popularity soared on Twitter and Facebook, and was covered by more than 200 news outlets around the world, from BBC to Newsweek, and from Poland and Germany to Korea, Japan, and Turkey. Gizmodo wrote: "Abortion drone is the best drone." 17

After the flight to Poland, the abortion drone made its way to Northern Ireland a year later on June 21, 2016. A collaboration between Alliance for Choice, Rosa, Labour Alternative, the Abortion Rights Campaign, and Women on Waves, the action was an act of solidarity between women in the north and the south to highlight the violation of human rights caused by laws criminalising abortion in both the north and south of Ireland except in very limited circumstances. More abortion drones will be launched in the near future.

Conclusion. New technologies have a great potential to advance women's human rights, but also pose challenges and demand a persistent navigation of restrictive guidelines and policies from governments and companies that mediate the access to these new technologies. We have to keep finding new and creative applications of technology, and the activist tech community could support our efforts with other ways to get information and resources across distances and borders.

THE POTENTIAL IMPACT OF FREE BASICS ON SRHR ADVOCACY IN BANGLADESH

Technology can, and is, playing a big role in supporting sexual and reproductive health and rights (SRHR) advocacy in Bangladesh. Be it through community radio to reach rural communities, mobile applications, or SMSbased information services, there are many initiatives taking advantage of technology to amplify their reach and their message. However, there is one tool that might drastically change the way that people who have never yet connected to the internet have their first contact: Free Basics, a platform offered by Facebook, with the goal of "connecting the unconnected." This article will explore how Free Basics might affect SRHR advocacy and education within the Bangladeshi context.

In Bangladesh, statistics vary widely around the number of people who have access to the internet. According to the regulatory agency of the Bangladeshi government, as of December 2015, 54 million people had internet access, including those accessing via mobiles. However, according to a report published in January 2016 by the World Bank, nearly 148 million people in Bangladesh are what they classify as "currently offline"—that is, without high speed internet access, which discounts slower, mobile access to internet.

Unlike other emerging markets, though, Bangladesh has a relatively high level of mobile penetration, even in rural areas.³ Despite the discrepancies in actual figures, it seems clear that there is relatively low connectivity in the country, combined with high mobile penetration. Based on other studies on access to the internet, this low connectivity will undoubtedly disproportionately affect women living in poor areas.⁴

Free Basics is aiming to reach this population: the "digitally unconnected." In their words,

...it seems clear that there is relatively low connectivity in the country, combined with high mobile penetration. Based on other studies on access to the internet, this low connectivity will undoubtedly disproportionately affect women living in poor areas.

their goal is "bringing internet access and the benefits of connectivity to the two-thirds of the world that doesn't have them." 5

They want to do this by partnering with mobile operators in certain countries—including Bangladesh—to provide access to certain websites and services, without cost to the user. This kind of practice is known as "zero-rating," and means that someone using the Free Basics application would be able to access certain websites without having a data subscription, or pay any more than they usually would. Especially in rural areas, this is likely resulting in Free Basics being the very first contact that millions of people may have with the internet.

Facebook founder Mark Zuckerberg says that it is a "stepping stone" to the broader internet. Writing in the *Times of India*, Zuckerberg says:

More than 35 operators have launched Free Basics and 15 million people have come online. And half the people who use Free Basics to go online for the first time pay to access the full internet within 30 days...Free Basics is a bridge to the full internet and digital equality.

Zuckerberg also argues that access to a limited section of the internet is better than no access at all, saying that without an initiative like Free Basics, poor people are worse off, missing out

- 1 Bangladesh Telecommunication Regulatory Commission, "Internet Subscribers in Bangladesh December, 2015," accessed June 15, 2016, http:// www.btrc.gov.bd/content/internetsubscribers-bangladesh-december-2015.
- 2 "World Development Report 2016: Digital Dividends," *The World Bank*, accessed June 15, 2016, http://www. worldbank.org/en/publication/ wdr2016
- 3 GSMA Intelligence, "Country Overview: Bangladesh," August 2014, https://www.gsmaintelligence.com/ research/?file=140820-bangladesh. pdf&download.
- 4 Web Foundation, "New Report: Women's Rights Online," October 21, 2015, http://webfoundation.org/2015/10/ new-report-womens-rights-online/.
- 5 Internet.org, "Our Mission," accessed June 15, 2016, https://info.internet.org/en/mission/.
- 6 Mark Zuckerberg, "Free Basics Protects Net Neutrality," *The Times of India*, December 28, 2015, http://blogs. timesofindia.indiatimes.com/toi-edit-page/free-basics-protects-net-neutrality/.

- 7 Save the Internet, http://www.savetheinternet.in/.
- 8 For a more in-depth analysis and background to the campaign, go here: Rahul Bhatia, "The Inside Story of Facebook's Biggest Setback," *The Guardian*, May 23, 2016, https://www.theguardian.com/technology/2016/may/12/facebook-free-basics-indiazuckerberg.
- 9 Apps included: Facebook; Facebook Messenger; Bikroy.com (marketplace); AccuWeather; Bdjobs; Bing; Crticalink; DAI; ask.com; Wattpad; Wikipedia; MAMA; Maya.com.bd; Amardesh E-Shop; ESPN Cricinfo; Sondhan; Prime Minister's Office Website; Cabinet Division; Ministry of Agriculture; Ministry of Primary and Mass Education; Shikkhok; bdnews24. com; Prothom Alo; Social Blood; HealthPrior21.com; UNICEF.
- 10 Mobile Alliance for Maternal Action, http://www. mobilemamaalliance.org/.
- 11 Kirsten Gagnaire, "MAMA Bangladesh—Connecting Health Information and Services to Mothers Through Mobiles," USAID, April 11, 2012, https://blog.usaid.gov/2012/04/ mama-bangladesh-connecting-healthinformation-and-health-services-tomothers/.
- 12 Maliha Mohsin, "Up Close and Personal with Naripokkho," *The Daily Star*, April 25, 2014, http:// www.thedailystar.net/up-close-andpersonal-with-naripokkho-21441.

on key benefits that are associated with access to the internet.

Net Neutrality Violations. However, while zero-rated applications like Free Basics provide a concrete way of access to some websites and internet services, it violates a principle known as net neutrality, which advocates that all of the internet is the same and should be treated as such. Abiding by net neutrality principles would mean providing free access to all of the internet, rather than just a tiny section, as zerorated applications such as Free Basics propose. When Free Basics was first proposed in India, under the earlier brand, Internet.org, the platform offered access to the internet through 36 bookmarked sites, one weather app, three women's issues sites, and the search engine Bing. And Facebook, of course.

[W]hile zero-rated applications like Free Basics provide a concrete way of access to some websites and internet services, it violates a principle known as net neutrality, which advocates that all of the internet is the same and should be treated as such. Abiding by net neutrality principles would mean providing free access to all of the internet, rather than just a tiny section...

Because of this violation of net neutrality, digital rights activists in many countries, notably India, have been campaigning against Free Basics. Though it has been launched in Bangladesh without any regulatory hitches, just next door in India, campaigners mobilised a huge movement of people to speak up against Free Basics plans,7 which led to zero-rating applications being banned by their regulatory agency.8

Digital rights campaigners say that zero-rated platforms like Free Basics would create a multi-tiered Internet—essentially providing better, faster, more open access for those who can afford it, with restrictions for those who cannot. Free Basics essentially means "poor internet, for poor people"—and they say that this simply is not good enough.

Free Basics in Bangladesh. At the time of Free Basics' launch in Bangladesh in mid-2015, content and services from 26 organisations⁹ were included, including three which focus specifically on the health sector: Health Prior 21, Maya, and Mobile Alliance for Maternal Action (MAMA).¹⁰

Of these three, Maya and MAMA look at SRHR issues. In Bangladesh, MAMA—whose work in Bangladesh is done under the programmatic name of *Aponjon*, meaning "dear friend"— uses simple mobile phones, or "feature phones" as its method of transmitting information. In their model, new or expectant mothers sign up to the service, giving their due date or their child's birth date, and the mother receives weekly messages "timed to the stage of pregnancy or the age of their newborn." ¹¹

The other SRHR-focused service provided through Free Basics is Maya Apa, an application through which users can ask medical questions and have them answered within 48 hours by medical or legal professionals. Users of the Android application and the website—i.e., the versions which are not offered on Free Basics, are coming largely from urban areas, rather than rural.

Both Aponjon and Maya Apa were relatively already well-established prior to partnering with Free Basics, and Shahana Siddiqui, Head of Content and Communications for Maya, says that the user base coming through the Free Basics app has a notably lower level of education to their usual users, visible through the style of questions they are receiving through the application. For the Maya Apa team, getting their service offered on Free Basics has allowed them a bigger reach to rural areas than they previously had.

It should be noted that other SRHR advocacy organisations in Bangladesh, like Naripokkho, which has been working for over 30 years,12 reach similarly rural areas without the use of technology, focusing on in-person "sensitisation" workshops regarding reproductive health and rights. Samia Afrin, Assistant Coordinator at Naripokkho, described how they spread information by speaking in person to groups of up to 25-30 women, encouraging these women to continue to share the information that they receive with their own personal networks.

What Does This Mean for Sexual Rights Advocates? For those who need to get access to information that might still be considered taboo in their culture, the internet holds a lot of potential, and in Bangladesh, a lot of SRHR advocacy falls in this category—like information on sexual rights and sexuality, for example.

However, despite advertising content to the contrary, applications like Free Basics, run by companies with vested business interests, are not "the internet." As of February 2016, Free Basics have stated "anybody can add their website to the Free Basics platform, so long as they abide by our participation guidelines." The fact remains, though, that it is up to them to decide how to implement those guidelines, and that they might change at any time.

Unlike with the actual "open web," where anybody can create a website or content to put online, in this case, if, for some reason the corporation behind Free Basics does not agree with the content or website, they can decide to remove it. In the context of SRHR, it might mean, for example, that people accessing new information might receive a certain perspective on a certain health question, without any way to verify that information; or that certain content is given more priority over others.

From a feminist perspective, this limitation of information is unacceptable. The current set-up of zero-rated applications directly contrasts with the approach of SRHR advocacy in working towards better understanding of SRHR issues from a full lifecycle approach, for everyone.

Given the sensitivity and historical treatment of sexual rights and reproductive health issues online within Bangladesh, it is critically important that if zero-rated platforms are offered, that they are open and run by more neutral parties, rather than simply by one company with a demonstrated business interest and strategy.

Conclusion. An affordable and open internet for all, regardless of living conditions or income, would be the best solution, and this

needs to happen in order for SRHR advocacy to take advantage of the increased reach that digital technologies could offer. Rural populations could be reached through multiple channels—digital, inter-personal, and through broadcast media. Access to information is a vital tool of SRHR advocacy, but without the necessary open internet infrastructure, digital technologies will not contribute to increasing this access.

An affordable and open internet for all, regardless of living conditions or income, would be the best solution, and this needs to happen in order for SRHR advocacy to take advantage of the increased reach that digital technologies could offer.

Free Basics as it currently stands is something of a wolf in sheep's clothing: however much Facebook and Zuckerberg advocate for it, Free Basics is not a gateway to the Internet; it is a gateway to their business-focused, closed, and controlled platform. SRHR advocates need to be aware of this risk, especially when it comes to establishing partnerships to spread SRHR information via digital technologies. Within the bigger picture, offering limited information to a select group of people does not contribute to SRHR goals, and in fact, could do more harm than good—for example, providing information only about certain SRHR issues without necessary context.

Access to information is a vital tool of SRHR advocacy, and access to the internet could be an amplifying force in that, especially within a country like Bangladesh with high levels of mobile penetration. Net neutrality and equal access for all to the open internet is a prerequisite for this, and the SRHR community standing and strategising with digital rights advocates to campaign for this could well provide useful new angles for collective action in reaching a goal that is crucial for us all.

Notes & References

13 Internet.org, "Free Basics Platform," https://info.internet.org/en/story/platform/.

GENDER, ROMANCE, AND THE INTERNET:

The Creation of a Non-Binary, Non-Binary Person

I am a transwoman.

This is a statement that I have only recently embraced and owned. For years, growing up in a conservative family in a conservative city, I've sought to distance myself from transgender people, the most visible set of them at least—the Aravanis of Tamil Nadu, or the Hijras of North India.

Labels are often ways in which humans create the Other, create a them who is not an us. You are either with us—all that is familiar and comfortable and safe—or you are with them—all that is strange, different, potentially harming. You are with us, or you are against us. Labels come with their stigma, beaten and sharpened over the years into powerful blades that can cut you up.

In this essay, I look at how I came to adopt labels such as transwoman, lesbian, and others, after initially rejecting them. I further attempt to explore the granular identities within such labels and the communities around them. Second, I discuss how the internet helped me, and others in similar communities, refine their labels or reject them altogether.

They Call Us Different Names. In the global battle against the HIV and AIDS epidemic, knowledge about the modes of its transmission resulted in the creation of a system of "key populations" or "target groups" that were considered to be most at risk of contracting the virus because of their sexual, social, and cultural practices. Identifying these groups and their risk made it possible to channel money and programmes to manage the spread of the disease.

One such category is MSM-TG: Men having Sex with Men, and transgender people. While the term transgender itself is inclusive of other, more diverse identities, in the world of HIV and AIDS prevention, TG stands almost exclusively for transgender women. Aravanis, Hijras,

and Kothis are also clubbed into this group, although they are all distinct.

However, to the large majority of "us" who have been brought up to believe that gender can only be binary (masculine or feminine) and that the sex organ determines gender (penis=male=masculine, and vagina=female=feminine), transwomen are simply "men in dresses."

Publicly available information reinforces these stereotypes. Any number of stories one heard of from friends, colleagues, and both on and off the internet, played on themes of the entrapped man, one who, in "good faith," approached a woman only to be "deceived," that *she* was, in fact, a *he*. The Hijras I encountered on the streets and on the trains put on a theatre of gender, playing oversexualised, oversexed women desperate for male company.

The medical and mental health industries have their own sets of labels and identities: transsexual, transvestite, pseudohermaphrodite, autogynephile. Meanwhile, mainstream and fetish pornography coopted these experiences into stereotypes of a "shemale," and were putting out newer words: tranny, t-girl, and more—terms that perpetuated harmful clichés and further stigma.

Labels are often ways in which humans create the Other, create a them who is not an us. You are either with us—all that is familiar and comfortable and safe—or you are with them—all that is strange, different, potentially harming. You are with us, or you are against us.

However, to me, the most worrying implication of this clubbing together of homosexual men and transgender women was the implicit assumption that both sets of people were attracted solely to "other" men. Are human beings only defined by their romantic and sexual attraction? Is identity, therefore, determined externally?

As a transwoman who was (and perhaps still is) struggling with my gender identity and my sexual orientation, these labels and stereotypes created severe anxiety and doubt in my mind. Was I, in the throes of sexual attraction to women, a man then? Was I "normal" after all? Was my desire for, and attraction to the girls in the school then, and to the co-workers and friends later, a playing out of "natural" "masculine" desire? As a teenager, and as a young adult, I struggled with this sameness, this affiliation to the gender I was assigned to. At the same time, I was terrified of the social ostracisation that I saw meted out to Aravanis and Hijras, and I avoided acknowledging, even to myself, that I might have more in common with them than with the boys of my school. I not only felt fear and shame in adopting these labels for myself, but also felt the labels themselves were inadequate, incomplete.

It would take me a lot of exploration, and a lot of problematic terminologies sourced from the Internet, to finally arrive at a label I felt comfortable in: a non-binary, non-binary woman.

It Happened Online... I am a transwoman. It is my truth. But the basis of this truth is a lie. The vocabulary I have now, to describe myself as a transwoman, as a non-binary woman, is a gift of the Internet. In the mid to late 1990s, accessing a still-new world-wide-web via a dialup connection, I discovered Yahoo! Chat. On chat room after chat room, I presented myself as a girl—a girl who was attracted to other girls.

Amina Abdallah, the "Gay Girl in Damascus," was not born till much later. A character, a false persona created by Tom MacMaster in 2011, Amina portrayed herself as a lesbian in a Syria going through uprisings and revolts. Although as a persona Amina had existed on various chat forums and networking sites from 2006, it wasn't until the Arab Spring that she gained a large following. Through a blog, Amina "reported" on events shaping up

in Syria, including how her father, her hero, stood up to the militia seeking to arrest her. Later, after her alleged "abduction," doubts began circulating as to her identity, and it was revealed that Tom MacMaster was the "real" person behind Amina.

Even before then, I was already constructing an identity, I was building up Nadja whose aspirations, dreams, and hopes were entirely mine. However, her face, body, life, and history, were an amalgam of fact and fiction, culled from friends' lives, from books, and from every image resource I could find on the internet. Like Amina, my Nadia too needed photographs, needed plausible truths and believable lies in the construction of identity. Chat friends needed a picture of me, to help them sustain the fiction of my life. Yahoo Profiles and Groups needed biographies and hometowns and schools studied in to present a complete person, a "true" person. So I "stole" images freely, not worrying at all about copyright, consent, privacy, and authenticity. As an Indian, I studiously avoided sending my friends pictures of white women. I found an image closest to my dark brown skin, and used all available tools to make it as "authentically south Indian" as possible. As Nadja learnt, and as Amina too discovered, photographs that were closest to the identity one constructs help sustain the deception.

This deception, this half-lie, half-truth, was easy in the early Internet. It was expected too, perhaps. You could be who you claimed to be, and no probing would be necessary. This was essential for some of us who were expressing desires and opinions that had little offline, "real world" support. This was plausible deniability, a cloak to hide under.

Years later, I discovered Second Life,² a multiplayer game that allows users to create a virtual world. Avatars—digital selves—interact with each other, exploring ideas of what makes humans, what it means to be a man or a woman, what it means to desire other men and other women with no "real world" rules to play by. For me, it became more than a game, more than an addiction. It became an existence.

On Second Life, I created a me that was more me than I could be. The Nadja of Yahoo Chat was slowly becoming the Nadika that I am today. As someone who struggled with her own body and how it was perceived, the women

- 1 Wikipedia, "A Gay Girl in Damascus," http://en.m.wikipedia.org/wiki/A_Gay_ Girl_In_Damascus.
- 2 SecondLife, secondlife.com

Social media and queer forums online and offline are spaces to add layers and depth to my identity, allowing me to tie my various lives and loves together into a coherent narrative. Having learnt to be more aware of my privileges and my oppression, and having an outlet to broadcast my politics and my personal life. I am now able to tell the world all about me. I am Nadika. I am a non-binary, non-binary person.

I pretended to be and the avatars I created became necessary crutches. A body shaped for, and by, the Internet.

As a boy questioning gender, and as a transwoman, I experienced desire and rejection. I experienced crushes and unrequited, unprofessed love. The question I asked myself: are transwomen exclusively attracted to, and seek sexual relationships solely with men? Would someone like me—who felt a deep attraction to women, both romantic and sexual—therefore be "still" a man, even though I felt deeply uncomfortable with being one?

While there were forums and chatrooms dedicated to homosexual desire and attraction, and while terms like Lesbian, Gay, and Bisexual were not unfamiliar, perceptions and understanding were limited by the filters of one's own society and peers. Therefore, only a "born girl," a GG—genetic girl—could be a lesbian. "Men" like me, could only be sissies, gay men in dresses. I had to navigate further pools of perversion and illicit desire to find the perfect label for me.

Still unsure of my gender, "still" a man, I worried about the best time to disclose to the person I was chatting with, my doubts

and anxieties over my gender. Would a woman accept the me I wanted to be, without questioning her own likes and preferences?

I was unaware, till recently, of lesbian-only dating spaces. Now there are options—Brenda, LesPark, Her, and many more. OkCupid and Tinder allow one to limit visibility, allow one to be discovered by people of only certain genders.

Would a transwoman be allowed into these spaces? My identity, as a lesbian transwoman, was genuine. But would my physical body, my voice, belie this?

In a web series called Her Story, the protagonist (and in real life one of the writers of the show), Jen Richards, as Vi, falls in love with a queer, lesbian-identified woman, Allie. In a beautiful scene, Vi explains why, for her, having relationships with men is easier than with women. Vi happens to be transgender, and she therefore feels her femininity, her womanhood, is not questioned when she sleeps with and has sexual relations with men. Next to their body, Vi is obviously feminine. But, even in a coffee shop, in a casual setting, Vi unconsciously debates her womanhood when talking to Allie.

Set in Los Angeles, California, the lives of Vi, Allie, Paige, and their friends would seem very different to the lives of a lot of transgender people—especially transwomen—in India, and elsewhere in Asia. However, as a transgender woman deeply attracted to other women, this scene struck a chord with me all the way across the cultural divide. Like Vi, like other transwomen I know, I have had to constantly reinforce my gender and sexuality to potential partners.

In recent months, I have found acceptance and community. Social media and queer forums online and offline are spaces to add layers and depth to my identity, allowing me to tie my various lives and loves together into a coherent narrative. Having learnt to be more aware of my privileges and my oppression, and having an outlet to broadcast my politics and my personal life, I am now able to tell the world all about me. I am Nadika. I am a non-binary, non-binary person.

IS ACCESS REAL?

Disability, Sexuality, and the Digital Space

My mother doesn't allow me to use sign language on the road, because she doesn't want people to know that I can't hear.

Carrying a white cane doesn't look dignified.

These are experiences that many people with disabilities have said and can identify with. More often than not, persons with disabilities (PWD) and especially women with disabilities (WWD) are forced to feel shame around their bodies, their minds, and their identity. In this environment, the relationship of PWD with their own bodies and the assistive technologies (which, in many cases, are a matter of survival and independence, a need, and an enabler in the true sense) becomes very complex.

What happens when societal stigma, familial pressure, and internalised prejudice restrains the woman from embracing the piece of technology—the wheelchair, the hearing aid, the white cane—they need? What happens when technology—like digital technologies—that is supposed to liberate us from our bodies, are in fact rigged from the start?

In this essay, I write about how as a disability rights activist I have discovered and negotiated different layers around what "access" means

More often than not, persons with disabilities (PWD) and especially women with disabilities (WWD) are forced to feel shame around their bodies, their minds, and their identity. In this environment, the relationship of PWD with their own bodies and the assistive technologies... becomes very complex.

with respect to sexuality and reproductive health and rights.

The environment is such that infrastructure, systems, and processes are far from being sensitive to the needs of the disabled, and a medical and charitable approach to disability

...there is a clearly marked hierarchy of needs that the able-bodied world thrusts on the disabled; sexuality and sexual needs of the PWD are at the very bottom...What everyone forgets perhaps is that persons with disabilities are more than just scrabbling for food, clothing, and treatment; they are battling for inclusion which means the right to be human in every sense.

is still prominent.¹ WWD are considered as a burden and changes in this way of thinking, though growing gradually, are few and far between. Understandably, the focus is on access to health systems, education, and employment, but there is a clearly marked hierarchy of needs that the able-bodied world thrusts on the disabled; sexuality and sexual needs of the PWD are at the very bottom.²

My aunt sat me down one day and started sharing her concerns for the marriage of my siblings. She discussed each of their preferences, likes, dislikes, and crushes with me. Out of us sisters, she only forgot one person—that was me.

- A wheelchair user from Pakistan

Assumptions around PWD's asexuality and incapability to engage or desire intimacy and

- 1 Michigan Disability Rights Commission, Models of Disability, accessed May 26, 2016, http://www. copower.org/leadership/models-ofdisability.
- 2 "TV Actor Sonal Vengurlekar Writes an Open Letter to Margarita with a Straw's Director Shonali Bose," *India Today*, April 24, 2015, accessed May 24, 2016, http://indiatoday.in/story/tv-actor-sonal-vengurlekar-writes-anopen-letter-to-margarita-with-a-straws-director-shonali-bose/1/432008.html.

- 3 TARSHI, Sexuality and Disability in the Indian Context (New Delhi: TARSHI, 2010), accessed May 24, 2016, http://www.tarshi.net/downloads/Sexuality_and_Disability_in_the_Indian_Context.pdf.
- 4 This project was developed and implemented by Point of View with support of Crea; both are feminist organisations in India. It can be accessed at http://www.sexualityanddisability.org.
- 5 "Web Content Accessibility Guidelines (WCAG) Overview," Web Accessibility Initiative, accessed May 26, 2016, https://www.w3.org/WAI/intro/wcag.
- 6 To find out more about Point of View, go to: http://pointofview.org/.
- 7 Barbara Faye Waxman Fiduccia, "Sexual Imagery of Physically Disabled Women: Erotic? Perverse? Sexist?" *Sexuality and Disability* 17, no. 3 (1999): 277-282.
- 8 Tom Shakespeare, Kath Gillespie-Sells, and Dominic Davies, *The Sexual Politics of Disability: Untold Desires* (UK: Burns & Oates, 1996).

romance got me started on my work. Little did I know that as a young, disabled activist talking about disability and sexuality, I would experience strong reactions, not only from the nondisabled community, where women's sexuality is still hushed, and a deeper silence thrives around that of WWD; but also from the disabled community, who thought that my work was superfluous at best and a complete non-issue at worst.³ What everyone forgets perhaps is that persons with disabilities are more than just scrabbling for food, clothing, and treatment; they are battling for inclusion which means the right to be human in every sense.

To start with, I researched and co-authored Sexuality and Disability,⁴ an online resource that busted the strong myths around the asexuality of WWD, and offered WWD more nuanced information and practical advice on understanding their own bodies, sexuality, possibilities, and opportunities for relationships, safety, violence, and abuse. The process of developing this project gave me the opportunity to understand and reflect on how the digital world could help alleviate the exclusion that WWD face in terms of access to unprejudiced information, and that too in accessible formats.

Bias Hardwired in Accessible Systems.

When an app or a website is launched, do we ever sit back and see whether it meets with the accessibility guidelines created to make platforms accessible for persons across disabilities? I registered on Truly—Madly, a dating app in India, and the option to express interest in a person is inaccessible with the voice-over technology that I use. While I work, live, and socialise independently, experiences with dating apps indicate that I should hire a personal assistant to help negotiate a dating app!

At Point of View, 6 we started a study of dating apps for disabled people. We found out that the combination of gendered and cultural filters has had an impact on users of these technologies for relationships and the accessibility of these platforms. First, it was extremely difficult to find WWD who used dating apps, as compared to men with disabilities. When WWD were reached and asked why they did not use dating apps, the reactions were not unexpected. They found it

When an app or a website is launched, do we ever sit back and see whether it meets with the accessibility guidelines created to make platforms accessible for persons across disabilities?

much more difficult than men with disabilities to express their desire for a partner; if it was expressed at all, it was only within the language of matrimony. Moreover, according to a few, dating was too western a concept for them.

Marriage is the inevitable future that is imagined for Indian women by their families and communities. Indian women are expected to epitomise beauty and perfection; anything that is different from the "normal" impacts their existence, place in society, and eventually, their chances of finding a suitable partner. Parents are worried about daughters who are too fat, too thin, too tall, too dark, and of course, those who are visibly disabled. This non-acceptance harms all women, and when you have a disability, not being allowed to accept or acknowledge your disability and labouring under the prejudice that surrounds it can be devastating.⁷

Matrimonial (i.e., matchmaking) sites are very popular in India, but there is bias against disabled people built into the very architecture of these sites—because they are built into society. You have categorisations on the basis of caste, education, physical attributes, but also one on disability. Of course then you can set search filters. Given the existing levels of prejudice against PWD, it is not surprising that one ends up being filtered out by the non-disabled world.⁸ So, as a PWD, I might have access to these matrimonial portals, but is the access real?

On some websites, the disability categorisation is taken to another level. Bharat Matrimony, a mainstream matchmaking website, copies the user's profile on to their "exclusively for disabled" portal, Ability Matrimony. It is possible they think they are being helpful and giving you two bites of the same apple. Consequently, the user is registered on a site that she never signed up for. However, when the profile is moved to Ability Matrimony, the

user's information and personal contact details suddenly become public, after being hidden and regulated on the main parent portal, Bharat Matrimony. Of course she is disabled, why would she need security and privacy?!

I strongly believe that the issue of a special portal for disabled people only is equivalent to offline confinement or institutionalisation where choices are heavily guarded and access to the outside world is regulated. Specialised dating apps or marriage websites basically imply that PWD can't match their likes, interests, wavelengths, desires, and attractions with a non-disabled person. Yet at the same time, many PWD are happy with this arrangement, because they know that segregated platforms are, in some senses, where we are treated with more equality by prospective partners, unlike the integrated platforms that reflect society's reductionist attitude around disability. Just what everyone forgets is that every individual is just a TAB—a temporarily-abled—body!

Making Spaces for Different Voices. Gender differences and inequalities and disability intersect to create online environments that mirror offline ones.

On one of the email lists for PWD, a good discussion was going on between the men about accessibility of daily-use technology. The thread went on forever, and then moved into the territory of shaving pubic hair. At this point, some female members expressed their discomfort. No heed was paid to the small voices of protest, and so I decided to step in and remind them about the nature of the list but also about making some space for discussions of women's sexuality and daily needs—which frankly shocked the group a bit.

Just what everyone forgets is that every individual is just a TAB—a temporarily-abled—body!

Just as women are battling for equality and safety in online spaces, PWD are similarly struggling to establish the need for accessibility of websites and content in digital spaces, similar to the struggle with inaccessible physical infrastructure.

What followed then were a lot of exchanges—angered, in denial, strong—but the dynamics in the group shifted, if only a little. The women know that there is empowerment in speaking up and solidarity, and the men know that women do have a voice. It is not easy to take spaces that are accessible, and to share them with others. What these disagreements and arguments have done for the group is that they have made it more comfortable for many to bring up sexual and reproductive health and rights discussions and information to the group without the fear of formal reprimand, and by those who monitor the space socially and laterally.

Gender differences and inequalities and disability intersect to create online environments that mirror offline ones.

Technology has enabled and empowered people who cannot access spaces physically, or who find it challenging to communicate, to find their social interactions and access to information online. Just as women are battling for equality and safety in online spaces, PWD are similarly struggling to establish the need for accessibility of websites and content in digital spaces, similar to the struggle with inaccessible physical infrastructure. The digital space offers hopes of changing access for disabled persons; until then, it is a twin battle for persons with disability.

SECURITY IN CONTENTIOUS CONTEXTS:

Exploring Digital Resilience for Organisations Serving Sexual and Gender Minorities

Notes & References

- 1 Aengus Carroll and Lucas Paoli Itaborahy, State Sponsored Homophobia 2015: A World Survey of Laws: Criminalisation, Protection and Recognition of Same-Sex Love (Geneva: International Lesbian, Gay, Bisexual, Trans and Intersex Association, May 2015), 28.
- 2 United Nations Educational Scientific and Cultural Organisation, From Insult to Inclusion (Paris: United Nations Educational Scientific and Cultural Organisation, 2015), http://apo.org.au/node/60996,26.
- 3 Full video recording, short clips, and notes from the webinar can be accessed at http://www.b-change.org/news/2015/10/28/understanding-cyberbullying.

People with diverse sexualities and gender identities are both stigmatised and often criminalised in Asia. In Southeast Asia alone, five out of 11 countries criminalise same-sex acts.¹

In response, B-Change launched *Connecting the Dots*, a strategy focused on supporting sexual and gender minority youth in Asian countries by using technology. Part of this strategy was the 2015 launch of *BE*—a peer support web platform that serves as a safer space where young lesbian, gay, bisexual, transgender, and intersex (LGBTI) people in Asia can find resources, connect with supportive communities, and get help in accessing services.

This article discusses some of the learnings of the organisation since launching *BE*. The discussion is focused on digital security issues and some suggestions for organisations whose work includes online components.

Dealing with online security issues is not exclusive to web-based service providers like B-Change. Online and offline spaces have been increasingly converging, which makes online presence necessary for practically every organisation. Our knowledge of the internet is constantly evolving and we begin to see how

Online and offline spaces have been increasingly converging, which makes online presence necessary for practically every organisation. Our knowledge of the internet is constantly evolving and we begin to see how digital issues are not limited only to technical concerns but also reflect issues that we deal with offline.

The intention of LGBTI and allied social media pages to be safer spaces, for example, is often threatened with the presence of comments attacking LGBTI people.... [R]eporting mechanisms built to protect social media users from online abuse are also used to maliciously report posted LGBTI-friendly resources.

digital issues are not limited only to technical concerns but also reflect issues that we deal with offline. In a 2015 report, *From Insult to Inclusion*, UNESCO links online and offline harassment and suggests that these should be tackled as interconnected issues.²

For LGBTI people, much harassment is linked to stigmatisation by social, religious, and political groups. Shortly after *BE* launched in May 2015, there was a targeted digital attack that attempted to prevent users from accessing its services. The landing page was replaced by an image suggesting a connection to fundamentalist and extremist groups.

Growing extremism in online spaces was discussed in a cyberbullying webinar that B-Change conducted in 2015 featuring representatives from organisations working on rights and welfare of LGBTI groups in Southeast Asia. Participants of the webinar discussed their experiences with online attacks which limited their ability to distribute important content.³ The intention of LGBTI and allied social media pages to be safer spaces, for example, is often threatened with the presence of comments attacking LGBTI people. Pink Dot—a Singapore-based movement fighting for the freedom to love—shared their struggle with finding a balance between allowing free speech

in their social media pages, while keeping it a safer space by removing hateful comments. They also shared how reporting mechanisms built to protect social media users from online abuse are also used to maliciously report posted LGBTI-friendly resources. Often, these resources are falsely flagged as containing pornography or nudity, to which the immediate response by site administrators is usually to remove the materials. Pink Dot's main campaign consultant one day found that his Facebook account was disabled and Pink Dot's campaign video was taken down due to these false reports.

Digital resilience is an important area that can often be overlooked in organisations, and thus we must consciously include building it in our plans and strategies.

In Indonesia, false reporting is used by fundamentalists to have LGBTI-friendly websites taken down by the Ministry of Communications and Information Technology. Ardhanary Institute, a Jakarta-based lesbian, bisexual, and transgender (LBT) women's organisation, shared how their sites have been taken down several times due to false reports taking advantage of Indonesia's policy aimed towards protecting children from adult content. Similar to false reporting in social media, Ardhanary Institute's websites were reported to contain pornography and nudity. All these various forms of online attacks derail efforts to support LGBTI communities.

As a group supporting LGBTI youth, B-Change's responsibility to make the organisation resilient to digital attacks extends to our duty to protect users of our platforms—from web service to social media. Below are three key points that B-Change has learned so far in the early stages of its journey in online service provision.

1. **Technical bases should be covered.**Prepare by backing up assets and having a reliable recovery plan. It is also crucial

to employ the help of external security partners to maintain the health and security of the online infrastructure. B-Change sought out online security experts during a time of need, but it is better to identify connections to technical support before any actual issue arises. Tactical Technology Collective is a non-profit organisation that provides technical help to activist groups. Their website, *Security In-A-Box*, is an excellent digital security resource for human rights defenders.⁴

- 2. Digital security is an organisational issue. Resilience can only be achieved if it becomes a concern of everyone in the organisation. In the case of B-Change where activities are web-based, each team member has different access points to the technological infrastructures. Each of these access points is a security risk and also an opportunity for defense. It is crucial that team members acknowledge their role in maintaining security by taking accountability over their accesses and remaining vigilant of threats.
- 3. Investing in digital security is an ongoing process. Investing in comprehensive digital security protocols is worthwhile, and considering the dynamic nature of technology, it should be a continuous process that also constantly reinvents itself to stay abreast in digital safety. Security processes should be regularly updated and members of the organisation should always be informed with latest developments on security issues. To tie up digital security with a more holistic idea of security for human rights defenders, support for security trainings and creation of security plans are available through Freedom House's Dignity for All programme.5

Safety and security have always been complex issues. Having to tread them both offline and online—an environment with which we still have limited understanding—makes it even more challenging. Digital resilience is an important area that can often be overlooked in organisations, and thus we must consciously include building it in our plans and strategies.

- 4 Access Tactical Technology Collective's Security In-A-Box website at http://www.securityinabox.org.
- 5 Find out more about the Dignity for All programme at https://freedomhouse.org/program/dignity-all-lgbti-assistance-program

SAFER NUDES! A Sexy Guide to Digital Security

Notes & References

- Natasha Felizi, personal communication with author when asked to provide a few words about her text on the Safer Nudes guide.
- 2 See "Os Virais de 2015: O Ano do Manda Nudes," http://www.brasilbriefing.com.br/ videos/2015/12/Os-virais-de-2015-O-anodo-manda-nudes-.html#ixzz4DSORmlnx. Also "Manda Nudes (Send Nudes)," 2015, Know Your Meme, http://knowyourmeme. com/memes/manda-nudes-send-nudes.
- 3 Julia Barbon and Mateus Luiz de Souza, ";) Eu Curto: Internautas Mandam Fotos Sensuais para Aumentar Autoestima e Reduzir Distâncias," Folha de S.Paulo, May 10, 2015, http://arte.folha.uol.com.br/ tec/2015/manda-nudes/curto.html.
- 4 Forum, "I Like How You Guys BEG for Girls to Post Nudes, but When They Do, They're Attention Whores," IGN.com, July 22, 2009, http://www.ign.com/boards/threads/i-like-how-you-guys-beg-for-girls-to-post-nudes-but-when-they-do-theyre-attention-whores.182890800/.
- 5 Keka Demétrio, "Nudez de Pessoas Gordas Incomoda?" *Tempo de Mulher*, http://www.tempodemulher.com.br/ variedades/noticias/nudez-de-pessoasgordas-incomoda
- 6 Justin Trudeau Asks Us to "TWERK Diligently," YouTube video, 0:21, posted by The Capital Voice, May 17, 2016, https://www.youtube.com/watch?v=IX1NwSAoXYA and Big Freedia—Duffy (Official Music Video), YouTube video, 3:06, posted by TheQueenDivaTV, September 13, 2013, https://www.youtube.com/watch?v=HJBnNzilsywk.
- 7 Natasha Vargas-Cooper, "How to Protect Your Nude Selfies from Vengeful Ex-Boyfriends and Trolls," Broadly, May 26, 2016, https://broadly.vice.com/en_us/ article/how-to-protect-vour-nude-selfies from-vengeful-ex-boyfriends-and-trolls: Sally Weale, "Sexting Becoming 'the Norm' for Teens, Warn Child Protection Experts," The Guardian, November 10, 2015, http://www.theguardian. com/society/2015/nov/10/sextingbecoming-the-norm-for-teens-warn-childprotection-experts; and Caitlin Dewey, 'A Guide to Safe Sexting: How to Send Nude Photos without Ruining Your Life, Career and Reputation," The Washington Post, July 11, 2014, https://www. washingtonpost.com/news/the-intersect/ wp/2014/07/11/a-guide-to-safe-sexting how-to-send-nude-photos-without-ruiningvour-life-career-and-reputation/.

Some say that the internet has turned privacy into an outdated idea. However, we still see people who challenge gender normativity being targets of revenge porn, as well as offline and online bullvina. Most of the time, these attacks take advantage of the amount of data we leave as footprints when we use the internet. The ideas of caring about our privacy and sending nudes may seem contradictory, but they are not. Privacy is the power to choose who has access to our personal information and under what circumstances. In an online environment. it is deeply related to the choices of the communication technologies we use.

- The Authors

The Internet is not a global village. It is a white picket fenced pretty neighbourhood with ghettos and no go zones. The power dynamics at play URL today are similar to the ones at play IRL.

- Fannie Sosa¹

The expression "Send Nudes!" went viral in 2015 in Brazil. The common perception of nudes is that they are taken by young girls with low self-esteem, pressured by some boyfriend or her social network, and that eventually she will be the target of slut shaming, exposure, or online violence. Nudies are understood as something you just should not do. If you are a woman who deliberately sends it, you are an attention whore. If you are fat, trans, or anyone who is beyond the traditional standards of what is visible in the mainstream media, you are labeled as ugly, disgusting, or a freak.

However, as it happens with social phenomena appropriated (not created) by pop culture, 6 making selfies and nudes can be an opportunity to empower people beyond the mere reproduction of sexy pictures of women already in mainstream and digital media. It can be used as a way to know yourself, connect with other people, and represent yourself in your own terms.

...making selfies and nudes can be an opportunity to empower people beyond the mere reproduction of sexy pictures of women already in mainstream and digital media. It can be used as a way to know yourself, connect with other people, and represent yourself in your own terms.

Motivated by the recurring leaks of celebrities' nudes, many media platforms have published their warnings about the risks of sharing nudes. The vast majority of them suggest, more or less explicitly, that the only safe way to send nudes would be to not to send them at all.⁷

For Coding Rights, a women-led organisation addressing digital rights, such as the right to privacy and freedom of expression, this was unreasonable. It overlooked the fact that people, including teenagers, would not stop doing it and advising them to stop would be repressive and result in an illusion of changed behaviour.

As in offline spaces, it is not possible to be 100% safe online. Digital security is not a one-size-fits-all formula. There is no button to press, box to tick, or device to activate that will mitigate all possible security vulnerabilities. However, there are ways to mitigate your risks according to what you are communicating, to whom, and how. The most important thing in digital security is to understand what you are doing and what the risks are in a given situation.

With that in mind, the sexy guide to digital security provides some information about how digital communications work to enable nude lovers to understand and be able to minimise the digital traces that they leave behind when sharing pictures online, as well as to diminish the risk of exposure of such content.

As security of tools change over time, apps recommendations are secondary. This holistic way of thinking should lead to the understanding of the importance of practices, such as implementing strong passwords in your devices and apps; using apps that use end-to-end encryption⁸; blocking screen shots; using self-destructing messages that are erased from both servers and devices; encrypting your devices; and deleting files, among other

security considerations, when exchanging pictures.

We believe this approach towards communications is a powerful way of thinking to protect our right of self-determination and autonomy over the control of our bodies and self in online communications.

You can download the guide here: http://www.codingrights.org/pt/manda-nudes/

Notes & References

8 When encryption is end-to-end, no third party can access the cryptographic keys needed to decrypt and eavesdrop on the conversation

By **Natasha Felizi**, Researcher & Project Manager; **Joana Varon**, Researcher & Founder-Director; **Fernanda Shirakawa**, Digital Security Trainer & Researcher, Coding Rights; and **Raquel Rennó**, Art, urban studies & technology researcher, & professor (UFRB, UOC/IN3). Emails: natasha@codingrights.org, joana@codingrights.org, fer@codingrights.org, & raquelrenno@codingrights.org.

WOMEN'S BODIES ON DIGITAL BATTLEGROUNDS:

Networks of Information and Support by Pro-choice Activists in Latin America¹

I was educated in the idea that women should be silent, so the fact that now I can dare to say what I really feel has made me feel very free.

- Bertha, the grandmother blogger²

This article analyses the use of information and communications technologies (ICTs) by pro-choice activists and Women Human Rights Defenders (WHRDs) from Latin America. It shows that technological practices enable networks of information and support, and create new kinds of risks and vulnerabilities online.

The interviews conducted for this research revealed that the legislations³ in place, and the civic struggles for the advancement of sexual and reproductive health and rights (SRHR), are felt as highly unstable. For instance, in Brazil, there is an extremely worrisome bill proposed⁴ that intend to forbid the production and sharing of information about abortion with

jail sentences of up to ten years in prison. In Honduras, the government has banned any policy or programme related to emergency contraception. So far, though, it is not illegal in any other Latin American country to publish SRHR information.

Table 1 presents the geographic and legislative characteristics of the nine testimonials we have gathered for this study, and lists the type of ICTs they are using. The interviews consisted of four questions around their perception of the main risks they were facing, advantages and risks associated with their use of ICTs, current needs for moving their activism forward, and other resources or documentation they wanted to share with this inquiry.

Freedom of Information, Social Stigmatisation, and Criminalisation.

Confronted with the absence of legal, safe, and/or publicly funded conditions within which to access abortions, women in Latin America have created and engaged in networks of information and support that generally

- 1 Acknowledgments: This research would have not been possible without the solidarity networks and complicities taking place among different feminists in Latin America. We would like to specially thank Intui, Joana, the members of the awesome cyberfeminist list, our anonymous testimonials, and the activists who have taken the time to answer our questions: Claudia Anzorena, Ketty Scheider, Lucia Eganas, and Patricia Irene Fanjul.
- 2 W Radio "¿Cómo y Cuándo Surgió el Blog 'Abuela-Abuela'?," August 29, 2015, http://wradio. com.mx/programa/2015/08/29/ audios/1440869400_911963.html.
- 3 According to the Gender Equality
 Observatory for Latin America and the
 Caribbean (ECLAC), only three of 19
 countries in the region—Cuba, Puerto
 Rico, and Uruguay—as well as Mexico
 City (Federal District) in Mexico, allow
 legal abortion under any condition. Five
 countries completely forbid abortion
 (Chile, the Dominican Republic, El Salvador,
 Honduras, and Nicaragua). In the 11
 remaining countries, legal abortion can only
 take place under specific circumstances.
 See Observatorio de Igualdad de Genero,
 http://www.cepal.org/oig/.

- 4 See bill here: Comissao de Constituicao e Justica e de Cidadania, http://www2.camara.leg.br/proposicoesWeb/prop_most rarintegra;jsessionid=BgC94B89D092825E08192AF42999B2B0.proposicoesWeb2?codteor=1402444&filename=Parecer-CCJC-21-10-2015.
- 5 For instance, a recent report from Colombia which is part of a global report indicates that women are mostly using the internet for entertainment and connecting to their peers and familiars, and much less for looking for education and employment opportunities, finding information about health and sexuality, or about their rights and how to defend them. See Fundacion Karisma, "¿Cómo Usan la Web las Mujeres? Conozca el Informe 'Derechos de las Mujeres en Línea," December 21, 2015, https://karisma.org.co/como-usanla-web-las-mujeres-conozca-el-informe derechos-de-las-mujeres-en-linea/. See also the global report from Web We Want: World Wide Web Foundation, "Women's Rights Online: Translating Access into Empowerment," October 20, 2015, http:// webfoundation.org/about/research/ womens-rights-online-2015/.

Table 1. Characteristics of Testimonials

Country and Number of Testimonials	ICTs Used	Abortion Legislation
Argentina (3)	Mobile phones, chat on commercial social media platforms, websites, and information portals	Abortion is only allowed to protect women's physical health and life, or if pregnancy is caused by rape.
Brazil (1)	Commercial social media platforms, screenings, gatherings for organising awareness raising, and debates	Abortion is only allowed to protect women's physical health and life, or if pregnancy is caused by rape.
Chile (2)	Phone hotlines, mobile phones, mailing lists, and emails	Abortion is forbidden on all grounds.
Honduras (1)	Mobile phones, social networks, group chats	Abortion is forbidden on all grounds.
Mexico (1)	Skype, mobile phones, websites, and information portals	Abortion is legal in Mexico City, but it is only allowed in the rest of the country to protect women's physical health and life, or if pregnancy is caused by rape.
Nicaragua (1)	Mobile phones, WhatsApp, Facebook groups, and chat	Abortion is forbidden on all grounds.

work in two ways. On the one hand, groups raise awareness, remove stereotypes about abortions, advance women's rights, and create impact at a political level by seeking the legalisation or decriminalisation of abortion. They work intensively in producing useful information and ensure that these can be accessed by their audiences, allies, and other progressive social agents. On the other hand, groups and networks also provide direct support to women, either by providing them with misoprostol or accompanying them before, during, and after the abortion. It should be noted that for many groups, those objectives can overlap.

Latin American women have found the internet to be a space where they can share their most intimate and private feelings, connect with women abroad, create networks of support, and organise politically in order to defend their basic human rights in societies strongly shaped by patriarchal values. However, they also recognise how much the use of ICTs comes with new vulnerabilities and risks that in some

cases are not well understood, or are felt as inevitable and "part of the game" of using ICTs.

Even though the region is still characterised by low levels of digital literacy (more so among women in rural areas), there is an increase in the rates of connectivity of urban population largely through the use of smartphones. This trend has enabled more women to get online. However, very often their first experience of being online happens on social media platforms that can be both non-secure in terms of the visibility of personal information or even abusive. They have little orientation on how to take advantage of the internet and its positive benefits, as well as protect themselves from its negative consequences.⁵

There is an increase in violence against activists and WHRDs involved with feminism or sexual and reproductive rights. This violence is expressed as hate speech, or harassment online, on blogs, discussion forums, or social media platforms. Surveillance, harassment, and stalking that are enabled or amplified by

ICTs are routinely taking place through identity theft, blackmailing, doxxing (broadcasting an individual's identity and location information without consent online), smear campaigns, censoring, takedowns of content, through individual or mob rape, and death threats. Examples are the documented cases of "Nad Ro" and "Menstruadora" who have been harassed with hate speech or threatened with death. The same has happened in less well-documented cases, such as when members of pro-choice groups are targeted by pro-life activists on Facebook.

According to our interviews, online attacks are being carried out by relatives and partners, anti-choice or hate groups, organised crime, and governments. There is extensive literature regarding Latin American governments' practices in relation to the monitoring and surveillance of their citizens' communications. Similarly, the use of ICTs by narcotics trafficker gangs and cartels to track down their adversaries has also been documented. For instance, there are some reported cases of Mexican women murdered by drug traffickers who were apparently made visible through their exposure in social networking platforms.

In countries like Argentina, pro-choice activists felt that as long as the networks of support, and women's access to abortion, remained under the radar, they are safer. The main attacks they have detected take place when there are activities that attract public attention on pro-choice arguments and/or there is a requirement for support and/or resources from public institutions.

However, the strong context of social stigmatisation of pro-choice positions can also lead to different forms of attacks. In Argentina, there are public escraches: anti-choice groups who gather information about women who had legal abortion, or pro-choice activists and their allies, and share those in the public domain in order to shame or prosecute them. There have also been reports of attacks on and closing down of places where legal abortions were conducted; and harassment of specific doctors in order to pressure them to stop performing abortions. In Chile, one respondent noted that "when the abortion hotline was launched in 2009, their spokespersons faced surveillance, harassment, and illegal intrusion of their phones and email. However, they

For us the paradox is:
protect yourself until you
can't communicate any
more, or become visible
until you are unprotected.
— Doulagem de Guerillha

failed to reach beyond this because there was no criminal prosecution possible as they were only providing information and counselling." Another interview from Mexico reported that they had faced intrusion and Denial of Services (DoS) attacks⁹ against specific websites and information portals.¹⁰

Navigating between Visibility, Anonymity, and Secrecy. Interviewees were aware of the fact that their "misinformed" or "inexpert" use of ICTs could likely increase the risks they were facing. They also explained that, in general, their awareness of the existence of methods and tools to mitigate or even overcome those risks did not translate into engaging in safer communication practices among themselves, much less with the women they were supporting.

This was mainly because they lacked support and resources (e.g., time, money, learning opportunities, and training). As put by one interviewee from Chile: "When a woman needs to have an abortion, the last thing she worries about is how she can encrypt emails or navigate the internet with Tor." In the same way, the pro-choice group from Brazil raised the flag that many women who have limited internet access need to organise face-to-face meetings and screening within community-based organisations in order to share information.

This situation points at the dilemma of learning to use safer tools to communicate among the network of pro-choice activists. At the same time, they have to undertake new activities in order to engage with their target audience through selected safer spaces and safer tools that can be as easily accessible and appropriated as the commercial and more unsafe ones they are currently using.¹¹

Another challenge deals with the need to reach maximum visibility for accurate information around safe abortion and women's right to decide over their bodies, and at the same time

- 6 Nad Ro and Mestruadora are part of the contemporary Mexican lesbofeminist movement. In the past years this movement has increased its activity both in social media and in the streets. In social media platforms, they are being constantly attacked, to the point where in 2014. they were threatened with being "burnt alive" and subjected to "corrective rape." See Nadia Rosso and Luisa Velázquez Herrera, "[Análisis] Misoginia en Redes, Apología del Feminicidio y Machos Infiltrados," Dlovenes, March 3, 2015, http://djovenes.org/archivo/ analisis-misoginia-en-redes-apologia-delfeminicidio-y-machos-infiltrados/. Also "La Sangrona," Catalina Pordios, May 20, 2015, https://catalinapordios.com/tag/ menstruadora/.
- 7 "Vigilancia y derechos Humanos," Electronic Frontier Foundation, https:// www.eff.org/es/issues/surveillance-humanrights.
- 8 "Marisol Macías," Wikipedia, https://en.wikipedia.org/wiki/Marisol_ Mac%C3%ADas.
- 9 "In computing, a denial-of-service (DoS) attack is an attempt to make a machine or network resource unavailable to its intended users, such as to temporarily or indefinitely interrupt or suspend services of a host connected to the Internet." "Denial-of-service attack," Wikipedia, https://en.wikipedia.org/wiki/Denial-of-service_attack.
- 10 May First/People Link, "Fund Abortion Now Website Targeted by Denial of Service Attack," Linksunten.Indymedia.org, July 30, 2015, https://linksunten.indymedia.org/en/ node/140841.
- 11 For instance, meet.jitsi vs. Skype, Firefox vs. Internet Explorer, Cryptocat vs. Facebook chat, secure mails vs. corporate mails, Suresport or Signal vs. WhatsApp.

- 12 "Time-traveling Robots from the Future," Vimeo video, 02:25, posted by Singularity University, April 8, 2015, https://vimeo.com/124461176.
- 13 Metadata is data about your data, including how and when you created it, where you stored or sent it, when and where you got online to upload it, and more. Most metadata is information that is needed for the basic infrastructure of our digital systems to work correctly.

to make it happen within a context of relative or strong clandestinity. Many interviewees underlined how complex it was to combine their clandestine endeavours and their choice whether or not to remain anonymous. One interviewee explained, for instance, that she was fired from her job because of her personal pro-choice opinions and postings in her Facebook personal page. For testimonies coming from Honduras or Nicaragua, the only option was anonymity. However, in other contexts, many pro-choice activists have become trapped into displaying a visible and traceable persona, and in many case, they believe that anonymity is incompatible with defending freedom of expression and opinion, or feel that their online activism must be a mirror image of their offline activism.

Another possible layer of risk lies in the phenomenon of the "time travel robots," 12 in which information and metadata 13 that are seen today as innocuous and not sensitive could become highly problematic in the future if new type of businesses, legal frameworks, and criminalisation dynamics took place.

This risk analysis points at the need to learn how to remain vocal and visible, maintain a

[The best mitigation measures will hopefully... be] implemented within a security perspective that also engages with [activists'] physical integrity, self-care, and psychosocial well-being, and provides them with a good understanding of the evolving dimensions of privacy and the politics of data...

reputation that provides you with trusted and solidarity networks, and at the same time, reduce as much as possible the amount of personal identifiable information that can lead an adversary to profile, identify, track, and shut you down.

When applied to pro-choice activities that take place online and in the real world, the best mitigation measures will likely take place in safest and more autonomous uses of ICT in order to publish, share, move information. coordinate and communicate, and defend against spying and stalking. Hopefully, they will be implemented within a security perspective that also engages with their physical integrity, self-care, and psychosocial well-being, and provides them with a good understanding of the evolving dimensions of privacy and the politics of data in order to navigate among spyware and utilise other specific apps and platforms that could enhance their safety online and in real-life situations.

More concretely, there would also be a need to develop specific training and resources so that pro-choice activists can learn how to explore the deep web anonymously and receive purchased materials in a safe way. There is also a great need for awareness and educational materials that are non text-based, using other formats and distribution channels to reach out more effectively to undereducated women, women with disabilities, and allies living in urban, rural, and remote areas. There is a need to support researches and initiatives that can create more data and evidence regarding the impact on women's mental and physical health of prohibition policies, in countries that do not aggregate data about women morbidity due to unsafe abortions or unwanted pregnancy.

Finally, more transboundary networks of solidarity should be formed to support the technological needs for hosting, mirroring, and distributing contents tackling the current situation in Latin American countries.

RESOURCES FROM THE ARROW SRHR KNOWLEDGE SHARING CENTRE

ARROW's SRHR Knowledge Sharing Centre hosts a special collection of resources on gender, women's rights, and sexual and reproductive health and rights (SRHR). It aims to make critical information on these topics accessible to all. To contact the resource centre, write to dc@arrow.org.my or arrow@arrow.org.my.

Internet, Sexuality, and Rights

Finlay, Alan, ed. *Global Information Society Watch* 2015: Sexual Rights and the Internet. USA: APC & Hivos, 2015. http://www.giswatch.org/sites/default/files/gw2015-full-report.pdf.

This comprehensive report produced by Open Societies, Hivos, and Association for Progressive Communications (APC) adds to the existing discourses on how the internet has enabled young people to get sexual education by augmenting their access to online resources, how violence and discrimination in the offline and online spaces are interlinked, and how the internet has paved the way for the expansion of spaces for collective activism. Through case studies and country reports, this study also examines the increased threats of online surveillance, assaults on human rights defenders, and the emergence of alternative online economies.

Kee, Jac sm, ed. ://Erotics—Sex, Rights and the Internet. South Africa: APC, 2011. https://www.apc.org/en/system/files/EROTICS.pdf.

This exploratory research report examines the existing landscape of sexual and internet rights in Brazil, India, Lebanon, South Africa, and the USA. It also explores the value that internet brings in the exercise of rights by people of diverse sexualities. The report outlines various forms of challenges, threats, and restrictions to the exchange of information and dialogue online and the actors involved. It also identifies key questions for future research in this area.

Shah, Nishant, Puthiya Purayil Sneha, and Sumandro Chattapadhyay, eds. Digital Activism in Asia Reader. UK: Meson Press, 2015. http://meson.press/wp-content/uploads/2015/08/9783957960511-Digital-Activism-Asia-Reader.pdf.

This reader is a compilation of crowd-sourced digital tools, theoretical concepts, policy questions, case studies, and political analyses, identified by changemakers in their own practices of digital activism in Asia.

Sexuality Education and Discourses on Sexuality in a Digital Age

Berry, Chris, Fran Martin, and Audrey Yue. Mobile Cultures: New Media in Queer Asia. Durham: Duke University Press, 2003.

This collection of essays provides a snapshot of the queer cultures in Asia in the age of new media. It explores how access to mobile technology and the internet has augmented opportunities for public discourses on sexualities, gender roles, and global and indigenous queer cultures. It also offers a case against the argument about internet-facilitated "sexual imperialism."

Collins, Rebecca L., Steven C. Martino, and Rebecca Shaw Rand. "Influence of New Media on Adolescent Sexual Health: Evidence and Opportunities." ASPE. April 2011. https://aspe.hhs.gov/basic-report/influence-new-media-adolescent-sexual-health-evidence-and-opportunities.

This report examines nine interventions implemented through new media (SMS and internet) to improve adolescents' attitudes towards sexual risks. It provides evidence on the effectiveness and influence of new media, and also discusses variables that should be considered while strategising for future interventions.

Daneback, Kristian. "Love and Sexuality on the Internet." Doctoral dissertation, Goteborg University, 2006. https://gupea.ub.gu.se/handle/2077/10169.

This paper provides a comprehensive quantitative and qualitative analysis of user trends, usage, information-seeking patterns, and other arenas that constitute the landscape of sexuality on the internet. It also studies the generational differences and how it affects the ways users engage with different actors in the sexuality landscape on the internet and attempts to find linkages between informants' behaviors online and offline.

Access to the Internet—Socioeconomic and Gender Divide

Alliance for Affordable Internet. "The 2015-16 Affordability Report." A4Al.org, n.d. http://a4ai.org/affordability-report/report/2015/.

The Alliance for Affordable Internet's report on Internet Affordability looks at the policies, investments, and infrastructures in place that drive progress towards more accessible and affordable internet. The report also examines the gender gap with regards to access to the internet and the "cost to connect" for women. Lastly, it recommends policy changes to support and augment women's effective participation in a growing digital society.

"Women's Rights Online: Translating Access into Empowerment." World Wide Web Foundation, October 20, 2015. http://webfoundation.org/about/research/womens-rights-online-2015/.

This study by World Wide Web Foundation explores the extent of the gender gap in access to the internet in order to understand the empowering potential of information and communications technology (ICT) as tools against poverty and gender inequality. The research provides insights on the gender divide in accessibility to the internet as a reflection of societal disparities and the interlinkages between the realities of offline and online spaces. It also considers the barriers and challenges that must be resolved to address this gender divide.

Being Safe Online

Association for Progressive Communications.

"Online VAW: From Impunity to Justice." GenderIT.org, n.d. http://www.genderit.org/onlinevaw/.

This pioneer research series—conducted under "Take Back the Tech" campaign—examines the patterns of violence against women (VAW) in online spaces, its emotional, physical, and psychological impact on women, and the various redressal mechanisms

and legislations that women can use against the perpetrators of VAW in digital spaces. The research series also explores the redressal mechanisms on popular social media websites, including Facebook, Twitter, and YouTube, as well as domestic legal remedies in seven countries—i.e., Bosnia-Herzegovina, Colombia, Democratic Republic of Congo, Kenya, Mexico, Pakistan, and the Philippines.

Comninos, Alex, and Gareth Seneque. "Cyber Security, Civil Society and Vulnerability in an Age of Communications Surveillance." Global Information Society Watch, 2014. https://giswatch.org/en/communications-surveillance/cyber-security-civil-society-and-vulnerability-age-communications-sur.

Cyber security is becoming increasingly important to internet users including stakeholders like civil society, human rights defenders, and activists as they become more vulnerable to hack attacks and malware attacks. At the same time, states are employing "cyber commands" under the guise of "cyber security" to increase and strengthen their surveillance capacities. These technologies are often used to monitor civil society organisations and to target human rights defenders and activists which is also a violation of their rights. This report asks for a radical change in the discourses around cyber security to ensure that state agencies and corporate units do not violate human rights and privacy under the guise of cyber security.

Henry, Nicola and Anastasia Powell. "Beyond the 'Sext': Technology-facilitated Sexual Violence and Harassment against Adult Women." *Australian & New Zealand Journal of Criminology* 48, no. 1 (2014): 104-18.

Distribution and exchange of sexual images in online spaces in the context of harassment and intimate violence is an emerging trend. This paper examines this trend and argues that technology-facilitated sexual/intimate violence—such as revenge-porn and nonconsensual making and exchange of sexual images—is often looked at as an issue of victim's naiveté and not as a case of violence against women. It also argues that criminal law fails to adequately capture the harm done by technology-enabled VAW, sexual harassment, and coercion.

Maltzahn, Kathleen. "Digital Dangers: Information and Communications Technologies and Trafficking in Women." APC Issue Papers. August 2006. http://www.genderit.org/sites/default/upload/digital_dangers_EN_1.pdf.

This report examines the case study of non-consensual making of sexually-explicit videos and its distribution

through the internet to understand the role technology plays in virtual trafficking of female bodies. It also explores the concept of trafficking of women's bodies/images in a virtual world, how recruitment for trafficking is facilitated and/or promoted through new media, and what interventions could be taken to address these emerging threats.

Nyst, Carly. "Towards Internet Intermediary Responsibility." GenderIT.org, November 26, 2013. http://www.genderit.org/feminist-talk/towards-internet-intermediary-responsibility.

Responses to technology-facilitated and technology-enabled VAW are often defined by the assumptions about the nature of violence and the conflicts between addressing VAW and protecting the freedom of expression. This article explores the responsibilities of intermediaries to address technology-enabled and technology-facilitated VAW to ensure that the internet remains a safe space for women.

Tools for Activists and Human Rights Defenders

Association for Progressive Communications.

"Digital Security First Aid Kit for Human Rights Defenders (Second Edition)." APC.org, n.d. https://www.apc.org/en/irhr/digital-security-first-aid-kit.

This is developed by activists for activists to help human rights defenders (HRDs) become more secure in the digital landscape. This easy-to-use and simple kit provides guidance to mitigate security issues that might put the integrity and privacy of HRD's communications mechanisms under risk. (Summary is adapted from the introduction page of the kit.)

"Internet Monitor Dashboard." https://dashboard. thenetmonitor.org/.

Internet Monitor aims to study the "means, mechanisms, and extent of Internet content controls and Internet activity around the world" to help advocates, policy makers, and researchers get a better understanding of the internet landscape, its actors, and stakeholders. Internet Monitor is a project of Berkman Centre for Internet & Society at Harvard University.

"Me and My Shadow." MyShadow.org. https://myshadow.org/about.

This website helps individuals understand the concept of digital tracking and its usages. It also provides a simple how-to guide to control your digital data traces.

"Why We Post?" https://www.ucl.ac.uk/why-we-post.

"Why We Post" is an anthropological study of uses and consequent impacts of social media. A series of three books—open access and free to download—has also been released under this project. How the World Changed Social Media provides a summary of key findings of the research project conducted in eight countries. It is followed by Social Media in an English Village and Social Media in Southeast Turkey.

"Women's Rights Campaigning—Info-activism Toolkit." https://womensrights.informationactivism.org/en/about-toolkit.

This toolkit provides a guide for women's rights activists, NGOs, and civil societies around the world to digital tools for advocacy and campaigning. This was produced by Tactical Technology Collective in collaboration with CREA.

OTHER RESOURCES

Booysen, Tarryn. "Building Women's Access to Justice: Technology-related VAW in Law and Corporate Policy." GenderIT.org, January 10, 2015. http://www.genderit.org/feminist-talk/building-women-s-access-justice-technology-related-vaw-law-and-corporate-policy.

Datta, Bishaka. "Tangled, Like Wool: Sex, Sexuality and the Internet in India." GenderIT.org. http://www.genderit.org/articles/tangled-wool-sex-sexuality-and-internet-india.

Garcia, Liza S., and Florence Y. Manikan. Gender Violence on the Internet: The Philippine Experience. Report. http://www.genderit.org/sites/default/upload/monograph_finalz.pdf.

Tactical Technology Collective. "Gender and Tech Resources." https://gendersec.tacticaltech.org/wiki/index.php/Main_Page.

Kee, Jac sm. "Cultivating Violence through Technology? Exploring the Connection between Internet Communication Technologies (ICT) and Violence against Women (VAW)." Technical paper. APC Women's Networking Support Programme. April 16, 2005. http://www.genderit.org/sites/default/upload/VAW_ICT_EN.pdf.

Kunnuji, Michael. "Risk-bearing Sexuality within the Context of Internet Use among Young People in Lagos Metropolis." 45 *Inkanyiso: Journal of Humanities and Social Sciences*, no. 2 (2011). http://www.ajol.info/index.php/ijhss/article/view/74135.

McLean, Nyx. "Considering the Internet as Enabling Queer Publics/Counter Publics." GenderIT.org, August 19, 2015. http://www.genderit.org/resources/considering-internet-enabling-queer-publics-counter-publics.

Mitchell, Mia. "The Digital Gender Gap: Unleashing the Value of the Internet for Women." Kennedy School Review, April 30, 2015. http://harvardkennedyschoolreview.com/the-digital-gendergap-unleashing-the-value-of-the-internet-for-women-2/.

Mustanski, Brian, Tom Lyons, and Steve C. Garcia. "Internet Use and Sexual Health of Young Men Who Have Sex with Men: A Mixed-Methods Study." *Archives of Sexual Behavior* 40, no. 2 (2010): 289-300. http://www.ncbi.nlm.nih.gov/pubmed/20182787.

Nwagwu, Williams E. "The Internet as a Source of Reproductive Health Information among Adolescent Girls in an Urban City in Nigeria." *BMC Public Health* 7, no. 1 (2007): 354. http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-7-354.

Security In-a-box: Tools and Tactics for Digital Security." https://securityinabox.org/en.

Sonenstein, Freya. "The Internet, Teenagers, and Sexual Health Information: A Cautionary Tale." *Israel Journal of Health Policy Research* 1, no. 1 (2012): 39. https://ijhpr.biomedcentral.com/articles/10.1186/2045-4015-1-39.

UNDP, UNFPA, WHO, and World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP). "The Internet Is an Effective Means of Providing Sex and Reproductive Health Education to Young People in Shanghai, China." (Social Science Research Policy Briefs WHO/RHR/HRP/06.16). 2006. http://www.who.int/reproductivehealth/publications/adolescence/policy_brief_internet/en/.

Compiled by **Samreen Shahbaz**, Programme Officer, ARROW. Email: samreen@arrow.org.my.

SELECTED ARROW RESOURCES

Aside from *ARROW* for *Change*, which is produced in English and translated strategically in various Asia-Pacific and global languages, ARROW also develops cutting-edge publications. Below are key ARROW publications from the past five years. All resources from 1993 to the present can be downloaded at http://arrow.org.my/publications-overview/.

2014-2016

Various Authors. Call for Action to Integrate SRHR into the Post-2015 Agenda. Available for Africa, Bangladesh, Cambodia, India, Indonesia, Lao PDR (in English and Lao), Pakistan, Latin America and the Caribbean (in English and Spanish).

Various Authors. Country Profile Series on Universal Access to Sexual and Reproductive Health. Available for Bangladesh, Cambodia, China, India, Indonesia, Lao PDR (also available in Lao), Malaysia, Mongolia, Nepal, Pakistan, Philippines, and Sri Lanka (available in English, Sinhala, and Tamil).

Various Authors. Country Profile Series on Universal Access to Sexual and Reproductive Rights. Available for Cambodia, China, India, Indonesia, Lao PDR (also available in Lao), Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, and Thailand.

2016

ARROW. Myanmar/Burma Country Study; Breaking Barriers: Advocating SRHR.

ARROW. Stories of Change: Sharing Success Stories of Women's Health and Rights Advocacy Partnership - South Asia.

Various Authors. Advocacy Brief on Climate Change and SRHR. Available for Bangladesh, Indonesia (in English and Bahasa Indonesia), Lao PDR, Malaysia, Maldives, Nepal, Pakistan, and the Philippines.

Various Authors. Scoping Study on Climate Change and SRHR. Available for Bangladesh, Indonesia, Lao PDR, Malaysia, Nepal, Pakistan, and the Philippines.

2015

Varma, Ambika with Kumar Das. Sexuality: Critical to Addressing Poverty and Food Insecurity.

2014

ARROW. Sexual and Reproductive Health and Rights in the Post-2015 Agenda: Taking Their Rightful Place. (Avail. in Bangla, Hindi & Tamil)

ARROW. Sexual and Reproductive Health and Rights beyond 2014: Opportunities and Challenges.

ARROW. Setting the Adolescent and Young People SRHR Agenda beyond ICPD+20.

ARROW. ICPD+20 Asia Youth Factsheet.

ARROW. Fulfilling Women's Right to Continuum of Quality Care.

ARROW. ARROW Resource Kit on Leadership and Management.

ARWC & ARROW. Our Stories, One Journey: The Travelling Journal on Sexual and Reproductive Health and Rights.

Awin, Narimah. Taking a Broader View: Addressing Maternal Health in the Context of Food and Nutrition Security and Poverty.

Racherla, Sai Jyothirmai and Nurgul

Dzhanaeva. Country Profile on the Status of Sexual and Reproductive Health and Rights: Kyrgyz Republic. (Also available in Russian.)

Ravindran, TK Sundari. What It Takes: Addressing Poverty and Achieving Food Sovereignty, Food Security, and Universal Access to SRHR.

Turagabeci, Paulini and Bronwyn Tilbury. *Pacific Young People's SRHR Factsheet.*

Woods, Zonibel. Identifying Opportunities for Action on Climate Change and Sexual and Reproductive Health and Rights in Bangladesh, Indonesia and the Philippines.

2013

ARROW. (2nd ed.). Sex & Rights: The Status of Young People's Sexual & Reproductive Health & Rights in Southeast Asia.

Ravindran, TK Sundari. An Advocates' Guide: Strategic Indicators for Universal Access to Sexual and Reproductive Health and Rights.

Thanenthiran, Sivananthi, Sai Jyothirmai Racherla, and Suloshini Jahanath. Reclaiming and Redefining Rights: ICPD+20 Status of SRHR in Asia-Pacific.

Various Authors. Reclaiming & Redefining Rights—Setting the Adolescent and Young People SRHR Agenda beyond ICPD+20.

2012

ARROW. Thematic Papers Presented at the "Beyond ICPD and MDGs: NGOs Strategising for Sexual and Reproductive Health and Rights in Asia-Pacific Region" and "Opportunities for NGOs at National, Regional and International Levels in the Asia-Pacific Region in the Lead-up to 2014: NGO-UNFPA Dialogue for Strategic Engagement."

ARROW. The Essences of an Innovative Programme for Young People in South East Asia.

ARROW. Proceedings of the Regional Meetings "Beyond ICPD and MDGs: NGOs Strategising for Sexual and Reproductive Health and Rights in Asia-Pacific Region" and "Opportunities for NGOs at National, Regional and International Levels in the Asia-Pacific Region in the Lead-up to 2014: NGO-UNFPA Dialogue for Strategic Engagement."

46

ARROW. Leadership Experiences of Young Women in South East Asia: Reflections on Advancing Young People's SRHR Agenda.

ARROW. Kuala Lumpur Call to Action: Beyond ICPD and MDGs.

ARROW & World Diabetes Foundation (WDF). Diabetes: A Missing Link to Achieving Sexual and Reproductive Health in the Asia-Pacific Region.

Marin, Maria Lourdes S. International Labour Migration, Gender, and Sexual and Reproductive Health and Rights in East Asia, Southeast Asia and the Pacific.

Raghuram, Shobha. Reclaiming & Redefining Rights—Thematic Studies Series 5: Poverty, Food Security, Sexual and Reproductive Health and Rights—Integrating and Reinforcing State Responsibilities, Integrating Societal Action.

DEFINITIONS

- 1 Office of the Special Rapporteur for Freedom of Expression, and the Inter-American Commission on Human Rights, "Freedom of Expression and the Internet," 2013, 7-8, accessed July 11, 2016, http://www.oas.org/en/iachr/expression/docs/reports/2014_04_08_Internet_ENG%20_WEB.pdf.
- 2 "Big Data," IT Glossary, accessed July 11, 2016, http://www.gartner.com/ it-glossary/big-data/.
- 3 Jennifer Dutcher, "What Is Big Data?," September 3, 2014, accessed July 11, 2016, https://datascience. berkelev.edu/what-is-big-data/.
- 4 See an infographic of big data here: http://www.ibmbigdatahub.com/infographic/four-vs-big-data.
- 5 Bellagio Big Data Workshop Participants, "Big Data and Positive Social Change in the Developing World: A White Paper for Practitioners and Researchers" (Oxford: Oxford Internet Institute, 2014), accessed July 11, 2016, https://www.rockefellerfoundation. org/app/uploads/Big-Data-and-Positive-Social-Change-in-the-Developing-World.
- 6 For a short video explaining what big data is, refer to: "Big Data," Privacy International, accessed July 11, 2016, https://privacyinternational.org/node/572.
- 7 United Nations, "Universal Declaration of Human Rights," accessed July 11, 2016, http://www.un.org/en/ universal-declaration-human-rights/.
- 8 "Freedom of Expression," Article 19, accessed July 11, 2016, https://www.article19.org/pages/en/freedom-of-expression.html.
- 9 United Nations, "Universal Declaration of Human Rights."
- 10 "Freedom of Expression," Article 19.

Access: "The principle of universal access refers to the need to guarantee connectivity and access to the Internet infrastructure and other ICT services that is universal, ubiquitous, equitable, truly affordable, and of adequate quality, all throughout the State's territory..." This means, amongst others, putting in "measures that ensure that price structures are inclusive in order to facilitate access; that connectivity extends throughout the States territory, in order to effectively promote access for rural users and marginal communities; that communities have access to information technology and communications centers and other options for public access; and that efforts for training and education are reinforced, especially for poor, rural and older segments of the population. Universal access also places a priority on ensuring equitable access when it comes to gender, as well as inclusive access for disabled individuals and/ or individuals belonging to marginalised communities."1

Big Data: The corporate definition is "highvolume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation."2 However, "others argue that it's not the size of data that counts, but the tools being used or the insights that can be drawn from the dataset."3 A fourth Vveracity—to refer to the uncertainty of data has also been added as a dimension.4 Some activists, practitioners, and researchers looking at using big data for positive social change proposes a redefinition as follows: "[Big data] refers to digital datasets of unprecedented size in relation to a particular question or

phenomenon, and particularly datasets that can be linked, merged and analysed in combination.... [I]t may be more relevant to define big data as involving a process of analysis that characterises the data involved as big, rather than as a particular size of product. Thus big data could be seen more as a verb than a noun, and more as a process than an object."5.6

Censorship vis-à-vis Right to Freedom of Expression and Right to Information:

"The Universal Declaration on Human Rights (UDHR)⁷ and the International Covenant on Civil and Political Rights (ICCPR) guarantee the **right to freedom of expression**, both in Article 19. Freedom of expression is not only important in its own right but is also essential if other human rights are to be achieved."8 Article 19 of UDHR says: "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers."9 "The right to freedom of expression belongs to everyone. No distinctions are permitted on the basis of someone's level of education, race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or any other status." 10 [Editors: Other bases for non-discrimination are age, disability, ethnicity, sexual orientation, gender identity and expression, health status, and citizenship and migration status, amongst

"The right to impart information and ideas is the most obvious aspect of freedom of expression. It is the right to tell others what one thinks or knows in private or via the

media. But freedom of expression serves a larger purpose. It enables every person to access as wide a range of information and viewpoints as possible. Known as the **right to information**, this includes: reading newspapers, listening to public debates, watching the television, surfing the internet, and accessing information held by public authorities. The right to information has emerged as a new right, distinct but inseparable from the right to freedom of expression."¹¹

However, freedom of expression can be limited. One way is through **censorship**, which is "the use of power by the State or other entity to control the freedom of expression. Censorship is any intent to prohibit access to information, viewpoints or diverse forms of expression." ¹²

Some forms of online censorship are content regulation, filtering, and website blocking:

Content regulation is "the ways the free flow of information on the internet is controlled. Regulation takes many forms and is imposed by different people—governments (e.g., through laws), the private sector (e.g., through 'terms of use' and contractual agreements), the technical community (e.g., through standards and protocols), and individuals (e.g., through installation of filtering software on PCs)." 13

In **internet filtering**, ¹⁴ "a government, an ISP, a company, or a parent can install software, either on a personal computer at home or on a server in an organisation that restricts content to users. A filter can screen particular words, email addresses, websites, or other addresses and be used, for example, if a country wishes to prevent users within its borders from seeing a particular news site online." ¹⁵

Website blocking "works by blocking a computer access to a particular internet address. The user may receive a 'Site not found' message." 16

It must be noted that "the principal reason [for censorship] cited by governments across all geopolitical spectrums has been sex—or 'harmful sexual content.'" There are a variety of sexual content available online that cannot be considered 'harmful,' including information about sexual health, information on reproductive health and contraception, sexuality education for young people, networks

on combating sexual violence, sharing knowledge and information on sexuality and building communities such as for the LGBTIQ communities where homosexuality is prohibited by law or culture, and expressing one's own sexuality on one's own terms. However, often, these are also regulated and censored, resulting in "banning and blocking of sites by governments—directly or through the encouragement of blacklists censorship of material by internet service providers (ISPs) who take down content that goes against their 'terms of use'; over-reliance on technical solutions like content filtering by key wordwhich notoriously fail to distinguish between different types of sexual content, such as those mentioned above; technical blunders—leaving swathes of the population unable to use the internet; and governments and groups using moral arguments to approve censorship." 17

It must be noted that "the principal reason [for censorship] cited by governments across all geopolitical spectrums has been sex—or 'harmful sexual content." There are a variety of sexual content available online that cannot be considered 'harmful,' including information about sexual health, information on reproductive health and contraception, sexuality education for young people, networks on combating sexual violence, sharing knowledge and information on sexuality and building communities such as for the LGBTIO communities where homosexuality is prohibited by law or culture, and expressing one's own sexuality on one's own terms. However, often, these are also regulated and censored...

- 11 "Freedom of Expression," Article 19.
- 12 APC, "Media Brief from the APC: Censorship, Sexuality and the Internet," accessed July 11, 2016, https://www.apc. org/en/node/10262.
- 13 Ibid.
- 14 For an easy-to-understand video on how internet filtering works, see: "How Internet Filtering Works," accessed July 11, 2016, https://www.youtube.com/watch?v=LAUH 5MbXc9&feature=youtu.be.
- 15 William H. Dutton, Anna Dopatka, Michael Hills, Ginette Law, and Victoria Nash. Freedom of Connection, Freedom of Expression: The Changing Legal and Regulatory Ecology Shaping the Internet (Paris: UNESCO, 2011), 84, accessed July 11, 2016, http://unesdoc.unesco.org/images/0019/001915/191594e.pdf.
- 16 APC, "Media Brief from the APC."
- 17 Ibid.

- 18 "Censorship, Violence & Press Freedom," Article 19, accessed July 11, 2016, https://www.article19.org/pages/en/ censorship-violence-press-freedom-more. html.
- 19 William H. Dutton, et al., Freedom of Connection, Freedom of Expression, page 84. Freedom of Connection, Freedom of Expression, 84.
- 20 "Governance and Democracy," Article 19, accessed July 11, 2016, https://www. article19.org/pages/en/governancedemocracy.html.
- 21 "Net Neutrality," *Wikipedia*, accessed July 11, 2016, https://en.wikipedia.org/wiki/Net_neutrality.
- 22 "Net Neutrality: What You Need to Know Now," *Save the Internet*, accessed July 11, 2016, http://www.savetheinternet.com/ net-neutrality-what-you-need-know-now.
- 23 To easily understand why net neutrality is important, see: "A Guide to an Open Internet," accessed July 11, 2016, http://www.theopeninter.net/.
- 24 "What Is Privacy," *Privacy International*, accessed July 11, 2016, https://privacyinternational.org/node/54.
- 25 To understand what is privacy and why it is so important, see this video: "What Is Privacy?," accessed July 11, 2016, https://privacyinternational.org/node/568.

"The position in international law can be summarised as follows: Although the right to freedom of expression does not require an absolute ban on prior censorship, this should be a highly exceptional measure, taken only when a publication threatens grave harm, such as loss of life or serious harm to health, safety, or the environment. An article deemed defamatory, blasphemous, obscene or overly critical of the government would rarely if ever meet this threshold. Moreover, a system whereby media content must be officially cleared before it can be released would be unacceptable; its harm to freedom of expression would plainly far outweigh the benefit to its goals."18

Internet Governance: "The development and application by governments, the private sector, and civil society of shared principles and rules that shape the evolution and use of the Internet." "Essential to democracy and governance are open debate, the sharing of ideas, and the opportunity to take part in decisionmaking." ²⁰

Net Neutrality: "[T]he principle that Internet service providers and governments should treat all data on the Internet the same, not discriminating or charging differentially by user, content, site, platform, application, type of attached equipment, or mode of communication."21 Net neutrality is key to having an open internet, "It means that Internet service providers should provide us with open networks—and should not block or discriminate against any applications or content that ride over those networks. Just as your phone company shouldn't decide who you can call and what you say on that call, your ISP shouldn't be concerned with the content you view or post online. Without Net Neutrality, cable and phone companies could carve the Internet into fast and slow lanes. An ISP could slow down its competitors' content or block political opinions it disagreed with. ISPs could charge extra fees to the few content companies that could afford to pay for preferential treatment—relegating everyone else to a slower tier of service."22,23

Privacy and Data Privacy: Privacy is a qualified, fundamental human right. The right to privacy is articulated in all of the

major international and regional human rights instruments," including Article 12 of the the United Nations Declaration of Human Rights (UDHR) 1948, Article 17 of the International Covenant on Civil and Political Rights (ICCPR) 1966, Article 14 of the United Nations Convention on Migrant Workers. Article 16 of the UN Convention on the Rights of the Child, Article 10 of the African Charter on the Rights and Welfare of the Child, Article 4 of the African Union Principles on Freedom of Expression (the right of access to information), Article 11 of the American Convention on Human Rights, Article 5 of the American Declaration of the Rights and Duties of Man. Articles 16 and 21 of the Arab Charter on Human Rights, Article 21 of the ASEAN Human Rights Declaration, and Article 8 of the European Convention on Human Rights. "Over 130 countries have constitutional statements regarding the protection of privacy, in every region of the world."

"An important element of the right to privacy is the right to protection of personal data. While the right to data protection can be inferred from the general right to privacy, some international and regional instruments also stipulate a more specific right to protection of personal data, including: the OECD's Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, the Council of Europe Convention 108 for the Protection of Individuals with Regard to the Automatic Processing of Personal Data, a number of European Union Directives and its pending Regulation, and the European Union Charter of Fundamental Rights, the Asia-Pacific Economic Cooperation (APEC) Privacy Framework 2004, and the Economic Community of West African States has a Supplementary Act on data protection from 2010. Over 100 countries now have some form of privacy and data protection law."

And yet, in today's technological world, "Increasingly institutions are subjecting people to surveillance, and excluding us from being involved in decisions about how our lives are interfered with, our information processed, our bodies scrutinised, our possessions searched... [I]n order for individuals to participate in the modern world, developments in laws and technologies must strengthen and not undermine the ability to freely enjoy this right."

Access, Legislation, and Online Freedom of Expression:

A Data Overview

This edition's FactFile will combine tables, numbers, graphics, and text that will answer the question: Do young people in the Asia and the Pacific region up to the age of 25 have access to comprehensive information about sex, sexuality, and sexual health online and via mobile phones?

We have compiled data from 10 countries within the region: Bangladesh, China, India, Indonesia, Japan, Malaysia, Pakistan, the Philippines, South Korea (Republic of Korea), and Vietnam (see Table 1). The data focuses on the following areas:

 Access to information through technical infrastructure: This includes internet and mobile penetration in addition to 3G and 4G access. It also includes data about internet users under the age of 25 in each country.

While young people in a number of countries in the Asia and the Pacific region enjoy high access rate to the internet, their access to information on sexual health and sexuality can be restricted by government policies.

- Freedom of expression: This looks at cases of filtering and censorship in various countries, including regulation around online content and a country's laws on user data privacy or lack thereof.
- Policy and regulation around SRHR: This
 offers information on each country's
 laws and policies regarding sex/sexuality
 education, abortion, and sexual orientation.

The countries selected offer diversity in connectivity and infrastructure, government control, and policies towards sexual education. This diversity highlights the different challenges the young people in Asia and the Pacific

countries face when accessing information online about sexual health and sexuality.

The data available in this factfile allows readers to examine the intersections between online access and sexuality education, which helps explore different mechanisms needed to provide a safe and private online space for the youth that are increasingly resorting to the internet to find information.

The data addresses the commonly-held belief that access to the internet gives young people information about sexuality and sexual health, particularly in countries where social taboos and strict regulations are in place. Access to the internet and mobile devices has had an impact on how the youth across the globe can obtain information about sex and sexuality. This, in theory, can make it easier to circumvent social restrictions around this sensitive topic.

However, our data indicates that general restrictions from governments on content and infrastructure can restrict access to particular content. While young people in a number of countries in the Asia and the Pacific region enjoy high access rate to the internet, their access to information on sexual health and sexuality can be restricted by government policies. Content restrictions, alongside government surveillance and educational policies, can put into question what young people have access to.

Such is the case in Pakistan where laws banning pornographic sites meant that a sex education site directed towards teenagers was blocked as well.¹ Vietnam has national policies that promote education on sexual health and HIV; however, their extreme restriction on online content and threats to bloggers,² including their low "Freedom on the Net"³ rating, can translate into a severe limitation of access to information accessed online.

It is noteworthy that majority of the countries featured in this FactFile (with the exception of South Korea and Malaysia) have educational

- 1 "Pakistan Blocks Access to Teen Sex-Ed Site," *The Express Tribune*, March 20, 2012, http://tribune.com.pk/story/352222/pakistan-blocks-access-to-sex-ed-site/.
- 2 "Vietnam," *Threatened Voices*, accessed March 21, 2016, http://threatened.globalvoicesonline.org/bloggers/vietnam.
- 3 "Vietnam," Freedom House, accessed March 21, 2016, https://freedomhouse.org/report/freedom-net/2015/vietnam.

- 4 "Review of Policies and Strategies to Implement and Scale up Sexuality Education in Asia and the Pacific," UNESCO, accessed March 22, 2016, http://unesdoc.unesco.org/images/0021/002150/215091e.pdf.
- 5 ARROW, "Sexual and Reproductive Rights Indicators," n.d., http://www.srhrdatabase. org/?p=indicators&content=SEXUAL-AND-REPRODUTIVE-RIGHTS.
- 6 "Freedom on the Net 2015," Freedom House, https://freedomhouse.org/report/freedom-net/freedom-net-2015.
- 7 Glenn Greenwald, "New Study Shows Mass Surveillance Breeds Meekness, Fear and Self-Censorship," *The Intercept*, April 28, 2016, https://theintercept.com/2016/04/28/new-study-shows-mass-surveillance-breeds-meekness-fear-and-self-censorship/.
- 8 Dave Smith, "Internet Blackout in Malaysia: Netizens Protest Evidence Act Amendment S114A," *International Business Times*, accessed March 20, 2016, http://www.ibtimes.com/internet-blackout-malaysia-netizens-protest-evidence-act-amendment-s114a-743134.
- 9 Scott Oliver, "Catching Up with Malaysia's Renegade Sex Bloggers," Vice, accessed June 7, 2016, https://www.vice. com/read/catching-up-with-malaysiasfugitive-sex-blogger-777.

policies that include specific references to sex education and/or education about HIV.⁴ Nevertheless, a country's national policies on sex education are not necessarily reflective of what SRHR information the youth under the age of 25 can access online; more so when country policies on sexual health do not match those of the educational policies. As a result, a thorough and updated study of a country's policies on sexual health rights, such as those referenced in ARROW's SRHR Database of Indicators,⁵ would benefit advocacy groups in their work to increase access to SRHR content online and to protect those who access it, particularly young people.

All countries examined here maintain a variety of restrictions on online content, and in particular, restrictions over sexual content such as pornography. Censoring online content via filtering or surveillance, takedown requests, and the laws that ban pornography are significant enough to highly restrict information related to sexual health and sexuality in certain countries across Asia and the Pacific, as in the above-mentioned case in Pakistan.

Countries such as China, India, Pakistan, and Vietnam lack user data privacy laws, which in many cases enable government surveillance. Considered as an erosion of digital freedom, many recent studies have drawn a link between the role state mass surveillance plays on citizen's self-censorship and access to information. As a result, the lack of privacy and data privacy laws can lead to citizens avoiding sites or information that might be considered controversial by both society and the governments.

The data also reveals country examples, such as Bangladesh, where citizens are entitled to privacy but have no particular law that addresses data privacy. The resulting absence within the legal framework can pose a risk to people's online privacy. Malaysia, on the other hand, passed data privacy laws in 2010, but holds bloggers and sites responsible for the content they post.8 With a Malaysian ban on pornography and content around sexuality, bloggers and content providers may be prosecuted for content interpreted by the government as pornographic or sexual in nature.9 The obscurity in data privacy laws, adding to the corporate, state, and societal surveillance, can lead to a hostile environment online, one which inhibits content, particularly content that is viewed as offensive or a taboo.

On the other hand, the data reveals the Philippines and Japan to be exemplary countries, both having a significantly high rate of internet access, have passed data privacy laws, and the Philippines have passed policies on sexuality education as well. Taking this information into account, it is important to further explore the ways that SRHR organisations cater to young people in countries where they enjoy a free and safe online environment to access SRHR information. This includes exploring the platforms used to spread information, the type of information being accessed, and how young people interact with it.

...it is important to further explore the ways that SRHR organisations cater to young people in countries where they enjoy a free and safe online environment to access SRHR information. This includes exploring the platforms used to spread information, the type of information being accessed, and how young people interact with it. In countries where surveillance and censorship is more common, it is imperative for women's rights, youth, and SRHR organisations to create safe spaces online just as they do offline.

In countries where surveillance and censorship is more common, it is imperative for women's rights, youth, and SRHR organisations to create safe spaces online just as they do offline. It is also under these circumstances that tech companies can play a supportive role by providing privacy and protection for their users. These spaces will allow young people to access accurate information on SRHR and for self-expression.

Table 1. Access to Information, Legislation on SRHR, and Online Freedom of Expression in 10 Asian Countries

Countries	Bangladesh	China	India	Indonesia	Japan	Malaysia	Pakistan	Philippines	South Korea	Vietnam
Percentage of Population Connected to the Internet ¹⁰	13.2%	52.2%	34.8%	20.4 %	91.1%	68.6%	17.8%	43.5 %	85.7%	52%
Broadband Adoption ¹¹	NA	20%	3%	2%	83%	27%	0%	1%	93%	4%
Internet Service Providers ¹²	61 (2014)	20	10 major ISPS amongst 129	300	12	2	50 (2014)	360	109 (2015)	3
Mobile Operators ¹³	8	3	12	7	5	8	9	4	4	5
Mobile Connections ¹⁴	133 Million	1.3 Billion	1 Billion	327.9 Million	173.3 Million	42.5 Million	127.9 Million	118.6 Million	57.1 Million	143 Million
Mobile Connections as % of Total Population ¹⁵	82.3	95.6	76.7	125.1	133.9	143.8	66.7	118.8	112.2	155.9
3G Connections ¹⁶	10.40%	34.5%	13.30%	34.50%	40.10%	53.10%	15.20%	42.50%	28%	24.90%
4G Connections ¹⁷	0.50%	23.20%	0.10%	1.50%	57.40%	10.90%	0.80%	3.30%	71.40%	NA
Percentage of Youth under 25 Connected to the Internet ¹⁸	NA	30.00%	37% (2013)	77.00%	15.00%	73.00%	NA	NA	NA	81.00%
Countries that Have Facebook's FreeBasics ¹⁹	Yes	No	Yes*	Yes	No	No	Yes	Yes	No	No
Freedom on the Net (2015 report) —o being most free and 100 being least free ²⁰	51	88	40	42	22	43	69	27	34	76

 $^{^{\}star}$ India had FreeBasics until it was banned by the Telecom Regulatory Authority of India (TRAI).

factfile

Countries	Bangladesh	China	India	Indonesia	Japan	Malaysia	Pakistan	Philippines	South Korea	Vietnam
Internet Regulatory Bodies ²¹	The Bangladesh Telecommunication Regulatory Commission (BTRC)	Several including State Council Information Office, SIIO, and Central Internet Security and Information Leading Group	The Ministry of Communications and Information Technology and the Telecom Regulatory Authority of India (TRAI)	Ministry of Communication and Information Technology and Indonesia Telecommunication Regulatory Body (BRTI)	Management and Coordination Agency	Malaysian Communications and Multimedia Commission (MCMC) under the Ministry of Information, Communications, and Culture	Pakistan Telecommunication Authority (PTA)	National Telecommunications Commission, Information and Communication Technology Office, National Computer Center, and the Telecommunications Office	Korea Communications Commission	Vietnam Internet Center (VNNIC), Ministry of Information and Culture, Ministry of Public Security, and the Ministry of Culture, Sports, and Tourism that tracks sexually explicit and violent content
Law Banning Online Pornography	Yes ²²	Yes ²³	Prohibits child pornography; attempts to block pornography sites have been met with a backlash ²⁴	Yes ²⁵	Law bans child pornography ²⁶	Yes ²⁷	Yes ²⁸	Yes (Cybersex) ²⁹	Yes³º	Yes ³¹
Data Privacy Protection Policy ³²	According to Article 43 of the country's constitution, Bangladesh recognises its citizens' right to privacy and correspondence. However, there is no specific privacy or data protection law in Bangladesh.	No. Many laws undermine data privacy such as real-name policy, creating backdoors, etc.	No. Surveillance is permitted under the Telegraph and the IT Acts.	Some.	Yes. There is some protection of data.	Yes. The Malaysian Personal Data Protection Act of 2010.	No. Surveillance is an issue in Pakistan (FinFisher).	Yes. "A 2012 Data Privacy Act established parameters for the collection of personal financial information and an independent privacy regulator."	Yes. The Personal Information Protection Act.	No. There have been reports of FinFisher software.
Facebook Content Restrictions (first half of 2015) ³³	NA	5 (Note: Facebook is blocked in China.)	15,155 ³⁴	NA	NA	NA	NA ³⁵	NA	6 (The content is linked to online gaming.) ³⁶	NA

Countries	Bangladesh	China	India	Indonesia	Japan	Malaysia	Pakistan	Philippines	South Korea	Vietnam
Total Government Takedown Requests to Google (first half of 2015) ³⁷	0	9	227	8	93	1	0	1	141	1
Law on Homosexuality ³⁸	Criminalised	Decriminalised	Criminalised	Not criminalised, but with exceptions to certain areas that follow Islamic Sharia Law	Decriminalised	Criminalised	Criminalised	Decriminalised	Decriminalised	Decriminalised
Law on Abortion ³⁹	Allowed to save a woman's life	Allowed on all legal grounds	Allowed to save a woman's life; to preserve a woman's physical health; to preserve a woman's mental health; in case of rape or incest; because of foetal impairment; for economic or social reasons	Allowed to save a woman's life; in case of rape or incest	Allowed to save the life of the woman; to preserve physical health; in case of rape or incest; or in case of economic or social reasons	Allowed to save a woman's life; to preserve a woman's physical health; to preserve a woman's mental health	Allowed to save a woman's life; to preserve a woman's physical health; to preserve a woman's mental health	Allowed to save a woman's life	Allowed on all legal grounds	Allowed on all legal grounds
Includes a Specific Reference to Education in Laws or Policies about HIV ⁴⁰	Yes	Yes	Yes	No	Unclear	No	Yes	Yes	No	Yes
National Education Sector Strategies that Include Specific Reference to Sex Education ⁴¹	No	Yes	Yes	Yes	Unclear	No	Yes	Yes	No	Yes

- 10 "Internet Users," *Internet Live Stats*, accessed March 22, 2016, http://www.internetlivestats.com/internet-users/.
- 11 "Broadband Connections," *Internet Monitor Dashboard*, accessed March 21, 2016, https://dashboard.thenetmonitor.org.
- 12 "Freedom on the Net 2015," *Freedom House*.
- 13 "Mobile Operators," *GSMA Intelligence*, accessed March 21, 2016, https://www.gsmaintelligence.com/.
- 14 "Mobile Connections Per Country,"

 GSMA Intelligence, accessed March 21,
 2016. https://www.gsmaintelligence.com/.
- 15 "Mobile Connections," *Internet Monitor Dashboard*, accessed March 21, 2016, https://dashboard.thenetmonitor.org.
- 16 "3G Connections," *Internet Monitor Dashboard*, accessed March 21, 2016, https://dashboard.thenetmonitor.org.
- 17 "4G Connections," *Internet Monitor Dashboard*, accessed March 21, 2016, https://dashboard.thenetmonitor.org.
- 18 "Statistics and Market Data," *Statista*, accessed March 28, 2016, https://www.statista.com.
- 19 "Where We've Launched," *Internet.org*, March 23, 2016, https://info.internet.org/en/story/where-weve-launched/.
- 20 "Freedom on the Net 2015: Table of Country Scores," *Freedom House*, accessed March 21, 2016, https://freedomhouse.org/ report/freedom-net-2015/table-countryscores.
- 21 "Freedom on the Net 2015," *Freedom House*.
- 22 Shahzeb Jillani, "Bangladesh Cabinet Approves Anti-Pornography Law," BBC News, January 2, 2012, accessed July 4, 2016, http://www.bbc.com/news/worldasia-1638-5812.
- 23 Christopher Beam, "They Know It When They See It: Is All Pornography Banned in China?" *Slate*, June 24, 2009, accessed July 4, 2016, http://www.slate.com/articles/ news_and_politics/explainer/2009/06/ they_know_it_when_they_see_it.html.
- 24 Nadia Khomami, "India Lifts Ban on Internet Pornography after Criticism," *The Guardian*, August 5, 2015, accessed July 4, 2016, https://www.theguardian.com/ culture/2015/aug/o5/india-lifts-ban-oninternet-pornography-after-criticisms.
- 25 "Indonesia Bans Tumblr over Porn," *BBC News*, February 17, 2016, accessed July 4, 2016, http://www.bbc.com/news/world-asia-35594617.
- 26 Caroline Mortimer, "Japan Finally Enforces Ban on Possession of Child Sex Abuse Images," *The Independent*, July 16, 2015, accessed July 4, 2016, http://www.independent.co.uk/news/world/asia/japan-to-enforce-ban-on-possession-of-child-pornography-a-year-after-passing-it-10392307.html.

- 27 "Over 1,000 Porn Sites Barred in Malaysia, Minister Says," *The Malay Mail Online*, November 10, 2015, accessed July 4, 2016, http://www.themalaymailonline.com/malaysia/article/over-1000-pornsites-barred-in-malaysia-minister-says.
- 28 Ashley Cowburn, "Porn Sites Targeted in Major Crackdown by Pakistan Authorities," *The Independent*, January 26, 2016, accessed July 4, 2016, http://www.independent.co.uk/news/world/asia/pakistan-launches-major-pornography-crackdown-and-provides-list-of-400000-adult-websites-to-be-a6834176.html.
- 29 "Philippines Outlaws Cybersex and 'Cam Girls,'" *BBC News*, September 20, 2012, accessed July 4, 2016, http://www.bbc.com/news/technology-19659801.
- 30 Tim Worstall, "South Korea Attempts to Ban Online Porn: Emptying the Ocean with a Bucket," *Forbes*, December 10, 2012, accessed July 4, 2016, http://www.forbes.com/sites/timworstall/2012/12/10/south-korea-attempts-to-ban-online-pornemptying-the-ocean-with-a-bucket.
- 31 "Internet Filtering in Vietnam in 2005-2006: A Country Study," *The Open Net Initiative*, accessed July 4, 2016, https://opennet.net/studies/vietnam.
- 32 "Freedom on the Net 2015," Freedom House.
- 33 "Government Requests Report 2015," Facebook, accessed March 24, 2016, https://govtrequests.facebook.com/.
- 34 David Cohen, "Facebook: Government Content Restriction Requests Double in First Half of 2015," *Social Times*, November 12, 2015, accessed July 4, 2016, http://www.adweek.com/socialtimes/global-government-requests-report-1h-2015/629857.
- 35 Sajjad Haider, "10-Fold Increase in Facebook Content Restrictions for Pakistan," *Dawn*, November 5, 2014, accessed July 4, 2016, http://www.dawn.com/news/1142431.
- 36 Jeff Grubb, "South Korea Blocks All Facebook Games as Part of a Government Crackdown," *Venture Beat*, September 2, 2014, accessed July 4, 2016, http://venturebeat.com/2014/09/02/south-korea-blocks-all-facebook-games-as-part-of-agovernment-crackdown/.
- 37 "Google Transparency Report 2015," Google, accessed March 24, 2016, https://www.google.com/transparencyreport/removals/government/?hl=en.
- 38 Aengus Carroll and Lucas Paoli Itaborahy, A World Survey of Laws: Criminalisation, Protection and Recognition of Same-Sex Love (Geneva; ILGA, May 2015), accessed July 4, 2016, http://old. ilga.org/Statehomophobia/ILGA_State_ Sponsored_Homophobia_2015.pdf.
- 39 ARROW, "Sexual and Reproductive Health and Rights: Database of Indicators," accessed March 24, 2016, http://www.srhrdatabase. org/?p=indicators&content=SEXUAL-AND-REPRODUTIVE-RIGHTS.

- 40 "UNESCO, Review of Policies and Strategies to Implement and Scale up Sexuality Education in Asia and the Pacific (Bangkok: UNESCO, 2012), accessed March 21, 2016, http://unesdoc.unesco.org/images/0021/002150/215001e.pdf.
- 41 Ibid
- 42 Damaris Colhoun, "Social Media Censorship in Bangladesh Hints at Long-Term Problems for Publishers," *Columbia Journalism Review*, December 2, 2015, accessed July 4, 2016, http://www.cjr.org/ analysis/bangladesh social media.php.
- 43 Lilian Lin and Chang Chen, "China's Censors Take Another Gay-Themed Web Drama Offline," *The Wall Street Journal*, February 24, 2016, accessed July 4, 2016, http://blogs.wsj.com/chinarealtime/2016/02/24/chinas-censors-take-another-gay-themed-web-drama-offline/.
- 44 Melody Patry, "India: Digital Freedom Under Threat? Online Censorship," *Index*, November 21, 2013, accessed July 4, 2016, https://www.indexoncensorship.org/2013/11/india-online-report-freedom-expression-digital-freedom-1/.
- 45 "Indonesia Labels LGBT Rights Advocacy Site Pornographic," *OutRight Action International*, February 7, 2012, accessed July 4, 2016, https://www. outrightinternational.org/content/iglhrcwebsite-banned.
- 46 Dave Smith, "Internet Blackout in Malaysia: Netizens Protest Evidence Act Amendment S114A," International Business Times, August 14, 2012, accessed July 4, 2016, http://www.ibtimes.com/internet-blackout-malaysia-netizens-protest-evidence-act-amendment-s114a-743134.
- 47 "Pakistan Blocks Access to Teen Sex-Ed Site," *The Express Tribune*, March 20, 2012, accessed July 4, 2016, http://tribune.com.pk/story/352222/pakistan-blocks-access-to-sex-ed-site/.
- 48 AFP, "Philippines Seeks to Block Ashley Madison Adultery Website," Yahoo News, November 30, 2014, accessed July 4, 2016, http://www.ibtimes.com/internet-blackout-malaysia-netizens-protest-evidence-act-amendment-sr14a-743134.
- 49 Eva Galperin and Maira Sutton, "Vietnam's Internet Censorship Bill Goes Into Effect," *Electronic Frontier Foundation*, September 10, 2013, accessed July 4, 2016, https://www.eff.org/deeplinks/2013/09/vietnams-internet-censorship-bill-goeseffect.

ARROW Editorial Team

Sivananthi Thanenthiran

Executive Director

Maya Indira Ganesh

Guest Editor & Director of Applied Research, Tactical Tech

Maria Melinda Ando

ARROW for Change Managing Editor & Senior Programme Officer, Publications, Communications & Advocacy

Ma. Aleah Taboclaon

Copy Editor

Internal Reviewers

Sachini Perera, Senior Programme Officer, Communications

Sai Jyothirmai Racherla, Programme Manager, Research, Evidence-Generation and Advocacy

Samreen Shahbaz, Programme Officer, Knowledge Management

Tabinda Sarosh

Former Programme Manager for Information & Communications

Expert External Reviewers

Bishakha Datta, Executive Director, Point of View

Karin Heisecke, Researcher and activist for gender equality issues

Pramada Menon, Independent Consultant, India

Sophie Toupin, Researcher, Media@ McGill, McGill University

Design Team

Jim Marpa, Layout

Chimera Sdn. Bhd., Template Design

Cover illustration: Internet of things concept visualised by globe wireframe and connections between different connected devices like smartphones, computers, sensors, and different objects. Interspersed are symbols for different gender identities and sexual orientation.

Adapted by **Jim Marpa** from a stock vector illustration by a-image, Shutterstock.com.

We would also like to thank the following ARROW Staff and Programme Advisory Committee Members who contributed their ideas during conceptualising of the bulletin:

Babu Ram Pant, Mangala Namasivayam, Otgonbaatar Tsedendemberel, Rachel Arinii, and Renu Khanna.

ARROW for Change (AFC) is a peer-reviewed thematic bulletin that aims to contribute a Southern/Asia-Pacific, rights-based and women-centred analyses and perspectives to global discourses on emerging and persistent issues related to health, sexuality and rights. AFC is produced twice-yearly in English, and is translated into selected languages several times yearly. It is primarily for Asian-Pacific and global decision-makers in women's rights, health, population and sexual and reproductive health and rights organisations. The bulletin is developed with input from key individuals and organisations in Asia and the Pacific region and the ARROW SRHR Knowledge Sharing Centre (ASK-us!).



This work is licensed under the Creative Commons Attribution-Non-Commercial 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc/4.0/. Any part of the text of the publication may be photocopied, reproduced, stored in a retrieval system, or transmitted in any form by any means, or adapted and translated to meet local needs, for non-commercial and nonprofit purposes. However, the copyright for images used remains with respective copyright holders. All forms of copies, reproductions, adaptations, and translations through mechanical, electrical, or electronic means should acknowledge ARROW as the source. A copy of the reproduction, adaptation, and/or translation should be sent to ARROW.

In cases of commercial usage, ARROW must be contacted for permission at arrow@arrow.org.my.

Please write to afc@arrow.org.my for subscription matters. Publications exchange is also welcome. All issues of the AFC can be downloaded for free at www.arrow.org.my. The bulletin is also distributed globally by EBSCO.

ARROW's work is also made possible through the core funding support provided by the **Ford Foundation**, **Foundation for a Just Society**, and **Sida**.

Feedback and written contributions are welcome. Please send them to:

The Managing Editor

Asian-Pacific Resource and Research Centre for Women (ARROW)

No. 1 & 2 Jalan Scott, Brickfields 50470 Kuala Lumpur, Malaysia

Tel.: +603 2273 9913 Fax.: +603 2273 9916

Email: afc@arrow.org.my, arrow@arrow.org.my

Website: www.arrow.org.my

Facebook: https://www.facebook.com/ARROW.Women

Twitter: @ARROW_Women YouTube: ARROWomen Pinterest: arrowomen