



**WORLD WIDE WEB
FOUNDATION**

ONLINE PRIVACY: WILL THEY CARE?

Teenagers Use of Social Media
and their Understanding of Privacy
Issues in Developing Countries

July 2018

www.webfoundation.org

CONTENTS



01	Introduction	3
02	Research Findings	6
03	Discussion	10
04	Recommendations	12
05	Bibliography	14



This paper is written by Michael Canares with country cases contributed by Leo Mutuku (AODN, Kenya), Dinita Andriani Putri (CIPG, Indonesia) and Jean Celeste Paredes (Step Up Consulting, Philippines). The author would like to acknowledge helpful comments from Pedro Prieto Martin of the Institute of Development Studies, and Nanjira Sambuli, Dhanaraj Thakur, Ana Brandusescu and Juan Ortiz Freuler, all of Web Foundation.

Suggested citation: Canares, M. (2018). Online Privacy: Will they Care?, Teenagers Use of Social Media and their Understanding of Privacy Issues in Developing Countries, *World Wide Web Foundation*.

Supported by a grant from the Omidyar Network.

The Web Foundation was established in 2009 by Sir Tim Berners-Lee, inventor of the World Wide Web. Our mission is to establish the open web as a public good and a basic right.

Copyright, World Wide Web Foundation, [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)

01

INTRODUCTION

1.1 Background

In the past five years, developing countries have experienced unprecedented growth in internet users. In Kenya and Indonesia, where internet penetration is still relatively low, the number of people online has doubled to more than one in four people. In the Philippines, connectivity rates have jumped to reach over 50% of the population. In most of these contexts, people access the internet via mobile phones and largely through social media sites — sometimes even creating the perception that social media sites exist separately from the internet itself. In Indonesia, for example, research has shown that some people using Facebook are not aware they are actually using the internet. As internet penetration rises in developing countries, so too does the use of social media. Indonesia, the Philippines, and Kenya — where between 82-89% of online adults use social networks — rank among the top lower-middle income countries for very high social media usage among internet users.

Users of social media sites share a tremendous amount of personally identifiable information with the platforms, prompting analysts to argue that private companies are farming data from users without their informed consent.¹ Recently, concern over data

¹ See for example <https://www.nytimes.com/2015/09/21/business/media/retailers-use-of-their-fans-photos-draws-scrutiny.html> and <http://time.com/2949565/heres-what-facebook-can-do-with-your-personal-data-in-the-name-of-science/>

privacy has been raised by numerous organisations advocating not only for data privacy but also data protection, asking governments and companies to enshrine data privacy as a right, legislate and enforce privacy safeguards, and condemn mass surveillance (Schulhofer, 2016; Danezis 2014).

In 2014, research was conducted in the US, UK, Germany, China, and India to assess how 900 people use social media, their level of awareness around information sharing and how businesses and the government may use their data, in order to identify their concerns about data sharing on the web. The research found an “astonishingly low recognition of the specific types of information tracked online”, but also a high recognition of the risks associated with social media use, including identity theft and violations of data privacy. Another study involving 23 countries found a majority of adults surveyed — as many as 83% in some countries — claimed that they do not know the types of data that companies hold about them, but are nevertheless concerned about how information about them are being used.

Similar research is scant in the context of low and middle-income countries, especially among young people. As more people come online in these countries, understanding whether users are aware of the privacy implications of using social media becomes more critical. This issue is particularly important for young people who, based on global statistics, are the heaviest users of social media and are therefore most exposed to various privacy risks (O’Keeffe and Clarke-Pearson 2011). Young people have also been identified as shifting most readily to social media for entertainment and leisure (Lenhart, 2015). This comes with risks, such as a high incidence of cyberbullying (Hussey and Blow 2018).

1.2 Objectives of the Research

This paper assesses how young people in low and middle-income countries use social media, how they behave online and how they view the risks associated with their use. It also looks at their understanding of the actions they can take to protect themselves and their privacy. The answers to these questions are important, not only to inform policies that protect users, but also to raise awareness among vulnerable users of potential privacy risks as well as the rights they have online.

This research looks into the following questions:

- **Platforms:** What social media platforms do teenagers use? How frequently do they use them? For what purpose?
- **Data sharing, collection, and use:** What data do they share on these platforms? What data do they willingly share publicly? What is their level of understanding about how their data is collected and used by social media companies?
- **Data value:** To what extent do they value the data that they share?
- **Data concerns and actions:** What are the primary concerns users have around their data? How do they act on these concerns?

1.3 Methodology

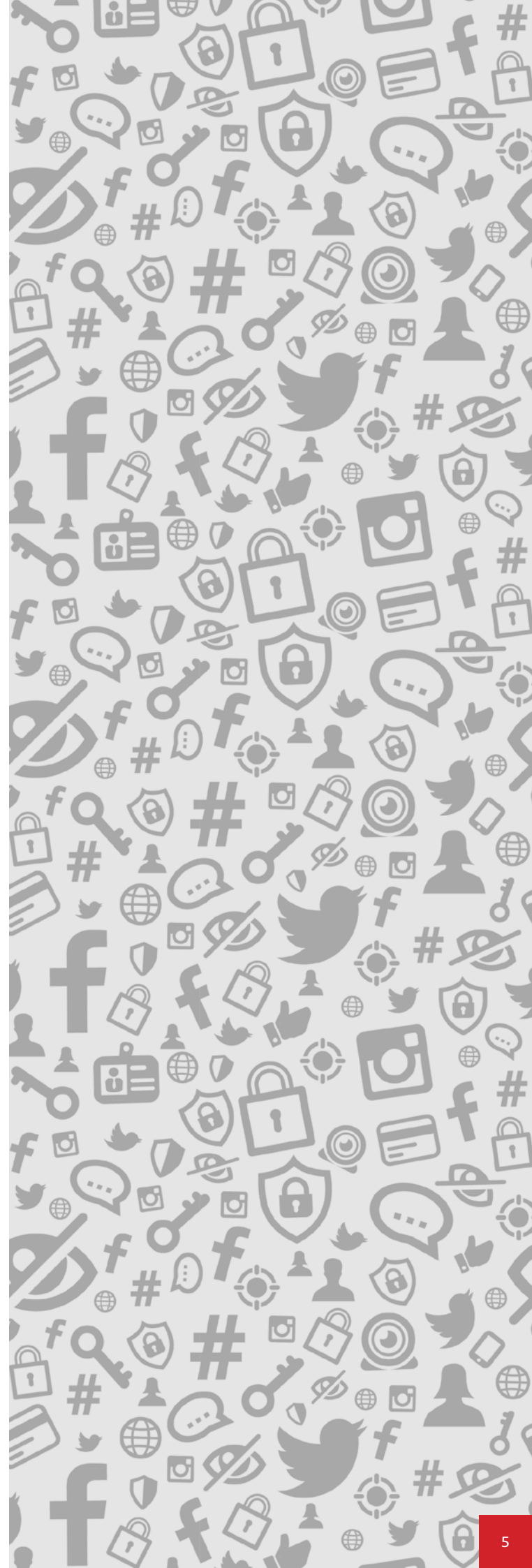
The research was conducted in three countries, each focusing on a specific geography: the highly urbanised city of Jakarta (Indonesia); the rural province of Bohol (The Philippines); and peri-urban counties in Kiambu and Machakos, which neighbour the capital city Nairobi (Kenya).

The study made use of both quantitative and qualitative approaches.

- **Quantitative:** Data was collected through a survey of senior high school students, aged 15-18. The number of respondents per area is 100 (50 male, and 50 female), assuming a 95% degree of confidence and a +10/-10 margin of error. The respondents were selected using a multi-level clustered sampling technique. A survey of the 100 respondents was conducted via self-administered paper-based questionnaires.

- **Qualitative:** Out of the 100 respondents surveyed, 10 student respondents (5 male, 5 female) were randomly selected for key informant interviews. Interview transcripts were subjected to descriptive analysis while results from the interviews were coded to identify common themes and patterns regarding the research questions.

The study is limited in terms of coverage as it only focuses on a particular age group and excludes teenagers that are not in school. While key informant interviews were used to provide more qualitative data to support the survey findings, these are also limited to only 10% of the total number of respondents. The study did not involve actual observation of students' use of social media or observation of their social media accounts. Therefore the findings are based on the respondents' answers in both survey and interviews. Thus, the results of the study are valid for the samples assessed and are not to be intended as comparative across countries.



02

RESEARCH FINDINGS

2.1 Use of Social Media

Young teenagers use social media largely to connect with friends and share content.

In all three countries, surveyed teenagers use more than one social media platform, but some sites are preferred over others.

- In Bohol, Philippines, a majority use Facebook. Facebook and Facebook Messenger are used by almost all students.
- In Jakarta, Indonesia, most use Instagram and WhatsApp rather than Facebook Messenger.
- In Nairobi, Kenya, WhatsApp and Facebook, along with Facebook Messenger and Instagram, are the top social media sites used by teenagers.

Regardless of platform used, teenagers claim that the key purpose for social media use is to connect with friends and family and share content, mostly for communication and entertainment.

“Facebook with its Free Data option and Facebook messenger’s free access is very helpful for me. It has become an inexpensive tool to communicate with my classmates and even my teachers...In fact, we depend on social media for announcement especially when there is a class suspension or to communicate with our group mates through group chats. Having an account has become a necessity.”

Female Respondent, Bohol, Philippines

In Bohol, teenagers use social media to access videos relevant to their interests. The students surveyed prefer to watch videos rather than read content. At the same time, social media is used for classroom tasks like communicating with teachers and classmates.

Teenagers surveyed use social media at least daily with some checking their accounts more than once a day.

Teenagers surveyed in Jakarta use social media on a daily basis, usually many times during the day. They claim to do this especially when they get bored and only during their spare time, as schools have a policy on the use of mobile phones (which are their primary means of accessing the web). In Bohol, the teenagers surveyed visit their social media platforms at least once a day and also use mobile phones to access the web. In Nairobi, students access their favourite social media platforms several times in a day, despite the relatively high costs of data plans. In Indonesia, Philippines, and Kenya, the cost of 1GB of data is equivalent to 1.45%, 2.02% and 4.33% of Gross National Income per capita (2016).

2.2 Data Sharing, Collection, and Use

The survey findings show that teenagers grant public access to key personal information without restriction.

In both Bohol and Jakarta, teenagers provide their real names, birthdates, gender, and age. Most of them think that providing this information publicly confirms the validity of their accounts and their identity. In Bohol, teenagers provide their contact information (email, phone numbers) to social platforms, but limit their viewing to only to a selected group of people — normally close friends and family — due to fear of blackmail and identity theft. Interestingly, students in Nairobi tend to be quite liberal with regards to whom they connect with, even adding strangers as Facebook friends because they found the online profiles interesting.

Surveyed teenagers seem to be unaware that when using social media, they are sharing data beyond that which they input directly.

In the survey and in the interviews, teenagers are concerned about the data that they themselves declare, but seem to discount the data that their social media “footprint” creates, such as location, browsing history, and other related content collected through connected technologies.

“...I know the (social media) companies are using my data for marketing... I don’t mind if the social media companies are using my data, as long as they don’t use it to create a fake profile about me.”

Male Respondent, Jakarta, Indonesia

Most surveyed teenagers are aware that social media companies collect their personal data, but are not knowledgeable or do not care about how these platforms use these.

In Jakarta, a few respondents (18%) said that they are aware that their data is being sold while a minority (34%) are aware that their data is used for marketing purposes. 11% said they do not care at all how social media companies use their data. In Bohol, a majority (61%) of the teenagers surveyed said they are okay with social media companies using data or content they post on their profiles to inform marketing strategies. The same is true in Nairobi, where 63% of the students surveyed approved or did not care if their data was being used by social media companies for marketing purposes; close to half of the respondents approve of, or do not care that, their data is sold by social media sites.

Teenagers confirm that they browse through social media companies' Terms of Service (ToS) but do not understand them and so do not see them as important.

In Bohol, 78% of teenagers surveyed find the ToS cumbersome, illegible, or too long that they only skim through it to find the accept button. They do not really place importance on, or else do not care about, the details of the agreement. In Jakarta, on the other hand, 61% of teenagers surveyed said they read the ToS but can not recall what they contain, while 21% just accepted them because they do not understand them. The rest do not read them at all. In Nairobi, almost half of the surveyed students have said that they have never read the ToS and for those who have read, half of them said they do not understand them.

“I have never checked the privacy settings. Frankly, I do not even know where they are”.

Female Respondent, Kiambu County, Kenya

Teenagers in the survey view data privacy as being able to control whom they share data and information with.

This view is largely predicated on trust and restrictions to access. For example, the majority (86%) of teenagers surveyed in Bohol share their name, age, sex and birthdate publicly. Whereas posts that describe their opinions on social and political issues are usually shared publicly, posts regarding personal problems and their feelings are restricted to close friends and family. In Jakarta, the majority (81%) of teenagers surveyed control their privacy settings but some of those interviewed use fake names on their profiles to conceal their identity. For the majority (56%) of teenagers interviewed in Kiambu and Machakus counties in Kenya, protection of individual privacy largely means keeping their information private

from users not in their network. Nearly half (47%) of respondents in Kenya are not concerned with the sale or commercial reuse of their data by social media platforms, while 63% do not care if their data is used for marketing purposes.

“I don't know whether the company used my data or anything that I post in the platform, but I do have a concern about it... I used a different name for username and set my account to private so only those that I approve can see my account.”

Male Respondent, Jakarta, Indonesia

Those surveyed in these three communities voiced concerns that privacy is largely about restrictive sharing of information only within their networks or circles. There is little evident concern about breaches of privacy by social media sites to which they entrust their data.

Hence, young students surveyed have a distinctive view of privacy as a concept but a low awareness of personal data protection. They are more concerned with their ability to control the sharing of their personal information — their view of privacy — but less so on how social media companies collect, process, and dispose of their information. They are also not aware that they have rights in relation to how their personal data is used.

2.3 Data Value

Teenagers in the survey consider personal information as their most valued data.²

This includes real name, gender, and age. Teenagers in Jakarta also include travel information (including location data) as very valuable. But an appreciation of data value does not necessarily translate into strong demand for this data to be protected.

² Respondents were asked “Which of the following data do you consider valuable to you? Please rate how valuable these are to you (with choices very valuable, somewhat valuable, not sure if valuable or not, not valuable). The definition of value, in this case, is a subjective view of the respondent.

Teenagers in the survey consider the disclosure of their personal information to social media companies as a necessary condition for them to access the benefits of social media.

In Jakarta, teenagers seem to trust social media companies and believe that giving out their data to these companies is one of the ways to validate their personal identity. They are not willing to pay for the protection of their data since they consider privacy protection as the responsibility of social media companies. In Bohol, 64% of respondents surveyed think that social media companies analyse their personal data to improve their services or provide more targeted products and information. As one respondent expressed, the use of social media is a benefit; sharing personal information is an unavoidable cost.

“One of the most horrible experiences I had with Facebook was identity theft. Somebody made an account using my photo, copying all my personal information, worst adding all my friends and chatting with them as if it was me. It’s traumatic to be scammed, more so, if some hackers use your account to scam other people.”

Female Respondent, Bohol, Philippines

2.4 Data Concerns and Actions

Teenagers from the survey are aware of the risks of providing their information to the public but feel powerless to protect themselves.

In the Philippines, teenagers responded that they fear blackmail and identity theft, while in Indonesia, most respondents said they are worried about forgery and inappropriate use of their photographs. In Nairobi, surveyed students were concerned with cyber-stalking and cyberbullying. In these countries, risk awareness seems to be high but their responses suggest they do not know how to protect themselves against these risks. While the respondents in all three countries say that they care about their privacy, most of them also acknowledge that they do not necessarily initiate measures to protect their data from unauthorised access and inappropriate use.

“I have been hacked on my Instagram account before. It was taken over...I did nothing. I just made another account”.

Female Respondent, Nairobi, Kenya

03

DISCUSSION

The findings in this study resonate with previous research on this topic that looks at high income countries like the US. Results from a [Pew Research study](#) resemble what we found in our own research — that teenagers have more than one social media account, and constantly access social media, facilitated largely by the use of mobile phones ([Lenhart et al 2015](#)).

The motivations of young people using social media appear to be broadly universal. The motivations our study identified for teenagers using social media chime with previous research on the subject (see for example, [Micheli, 2016](#)). In an ethnographic study of social media use in very dire conditions, such as the favelas in Brazil, social media was also reportedly used for connecting with friends and for entertainment ([Nemer, 2016](#)). In Hong Kong, [Lu and Jing \(2016\)](#) identify social interaction and communication as a key reason why young students use social media. A review of literature on use of social media by young indigenous people in Australia ([Rice et al 2016](#)) found that establishing community and family connection is one primary reason for social media use.

The information that teenagers share and make public on social media is largely in line with what has been self-reported by young users in the US ([Madden et al 2013](#)), including real names, photos, and birthdates. But these are what [Morey et al \(2015\)](#) consider as

self-reported data, as contrasted with the 'digital exhaust' (e.g., location data, browsing history) and profiling data (i.e., 'digital exhaust' combined with self-reported data and data from other sources). In the Morey et al study (2015), which surveyed adults in China, India, UK, US and Germany, only a very minimal percentage put value on location, web browsing, and web search histories that define part of their digital profile. As stated above, teenagers seem to be unaware of these types of data that they have unwittingly made available online.

Regarding privacy, our results echo earlier research showing that teenagers' understanding of privacy is different from that of activists, lawyers or privacy experts. Privacy for them is "an ability to control their situation, including their environment, how they are perceived, and the information that they share" (Marwick and boyd, 2014: 1056). However, there is a belief that social media companies are responsible for protecting user privacy more broadly. This was the position of teenagers surveyed in Jakarta, who themselves expressed a lack of power and control over their data and information. Thus, our understanding of privacy and the responsibilities needed to protect it needs a more holistic approach. Governments, companies, individuals and social networks each have a role to play.

danah boyd (2014) characterises teenagers as experts of online privacy, using a range of relatively sophisticated strategies including subtweeting and social steganography³ to avoid external control and surveillance. Our findings echoed this view, although the techniques used by the teenagers we studied were more basic. Examples include using fakes names and making their accounts private.

Hargittai and Marwick (2016) talk about a 'Privacy Paradox', where "young people claim to care about privacy while simultaneously providing a great deal of personal information through social media" (ibid.:3737). While teenagers in our study have found a few ways to protect themselves, they also feel that once their data is out there, it is no longer within their control and so they feel a sense of powerlessness. This reflects what Acquisti et al (2015) refer to as privacy uncertainty: users not being able to know if their actions are endangering their privacy, therefore preventing them from being able to make informed decisions about what and how to share. They argue that one cause of privacy uncertainty is incomplete and asymmetric information that occurs because information technology makes the collection, sharing and use of data invisible to users, making it difficult for them to understand the potential negative consequences of behaviour that impacts privacy. Privacy harms in some cases are intangible, and in most cases require certain tradeoffs. The teenagers in our study, for example, view the sharing of personal data as an inescapable consequence of using social media platforms.

³ Steganography is "the practice of hiding secret messages in otherwise non-secret mediums." See <https://www.wired.com/story/steganography-hacker-lexicon/>

04

RECOMMENDATIONS

Whose responsibility is it to protect online privacy, especially of more vulnerable users? Some of the students in this study argued that it is the responsibility of social media companies to protect user data. Be that as it may, this research was conducted against the backdrop of the fiasco spurred by Facebook and [Cambridge Analytica](#), highlighting the vulnerability of users to breaches, bad practice and other threats to privacy, as well as the evident lack of accountability from companies.

Protection of social media users and their data requires a concerted effort among different actors and requires several key initiatives, including:

- 1. Develop a global data protection standard**

[Research from the Web Foundation \(2017\)](#) has highlighted the importance of governments enacting regulations that protect of data privacy. The same research points out that, with the exception of the EU's General Data Protection Regulation (GDPR), people in most countries are not protected by strong regulatory frameworks.

While the GDPR is now in effect, it will not protect the students featured in this study. Without global data protection standards, a new form of inequality will persist. While some social media users enjoy robust privacy protections, others will remain second-class digital citizens.

2. Ensure digital literacy, especially of the young and vulnerable

Several experts have said that users themselves must control their data and protect their privacy (Xiao, 2015; Landau, 2015). Recent evidence suggests that the more people feel that their information is secure, the more they are willing to disclose information (Benson and Saridakis 2015), and that privacy proficiency is required for users to enact privacy strategies (Wisniewski et al 2017). Therefore, if we are to put more of the burden of data privacy on users themselves, there must be provisions to equip them with the digital literacy and privacy-awareness required to make informed decisions.

We must also remember that on social media, privacy is “networked” (Marwick and boyd, 2013: 1062). “Privacy in social media cannot be entirely maintained and established by individuals, as it is not wholly dependent on individual choices or control over data.” (ibid.:1063). The students surveyed for this paper viewed privacy as a personal construct and did not consider that threats to their privacy could also threaten the privacy of their family and friends. Digital literacy is necessary so that social media users understand that their social media use has networked implications for their contacts.

3. Compel private companies that collect and use data to be more transparent and accountable in the use of personal data

Social media companies must be more transparent and accountable in their use of personal data, including ensuring that terms of service that users agree to are accessible and clear. Users should also be given more control over how their personal data is collected and used.

4. Conduct more research on privacy and data protection, especially in the context of low and middle-income countries

More research to understand social media use is needed, especially in the context of low and middle-income countries where studies are limited and where users are often most vulnerable. We need to understand more about how users are accessing the web, how they can be protected against privacy risks, and how they can better protect themselves from the web’s risks while enjoying the benefits.

Similarly, ways of implementing digital literacy need to be designed and tested to see how web users can best be empowered to take control of their data online. More action research and experimentation in this area is also needed.

05

BIBLIOGRAPHY

Acquisti, A., Brandimarti, L., and Loewenstein, G., 2016. Privacy and human behaviour in the age of information. *Science*. 347(6221): 509-514

Benson, V. and Saridakis, G. 2015. Information disclosure of social media users: Does control over personal information, user awareness and security notices matter?. *Information Technology and People*: 28(3): 426-441

boyd, d. 2014. *It's Complicated; The Social Lives of Networked Teens*. Yale University Press: US.

Danezis, G. 2014. Privacy and data protection by design: from policy to engineering. *Enis*.

Hargittai, E. and Marwick, A. 2016. What can I really do?: Explaining the privacy paradox with online apathy. *International Journal of Communication*. 10: 3737-3757

Hussey, M, and Blow, M. 2018. *Safety Net: Cyberbullying's Impact on Young People's Mental Health*. The Children's Society: UK

Landau, S. 2015. Control use of data to protect privacy. *Science*. 347(6221): 504-506.

Lenhart, A. 2015. "Teen, Social Media and Technology Overview". Pew Research Center: Washington, DC.

Lu, J., Hao, Q., and Jing, M. 2016. Consuming, sharing, and creating content: how young students use new social media in and outside school. *Computers in Human Behavior*. 65: 55-64

Madden, M., Lenhart, A., Cortesi, S., Gasser, U., Duggan, M., Smith, A., and Beaton, M. 2013. *Teens, Social Media, and Privacy*. Pew Research Center: Washington, D. C.

Marwick, A. and boyd, d. 2014. Networked privacy: how teenagers negotiate context in social media. *New Media and Society*. 16(7): 1051-1067

Micheli, M. 2016. Social networking sites and low income teenagers: between opportunity and inequality. *Information, Communication, and Society*. 19:565-581

Morey, T., Forbath, T., Schoop, A. 2015. Customer data; designing for transparency and trust. *Harvard Business Review*. May: 96-105.

Nemer, D. 2016. Online Favela: The Use of Social Media by the Marginalized in Brazil. *Information Technology for Development*. 22 (3): 364-379

O'Keefe, G.S. and Clark-Pearson, K. 2011. Clinical Report: The Impact of Social Media on Children, Adolescents, and Families. *Pediatrics*. 127 (4): 800-804

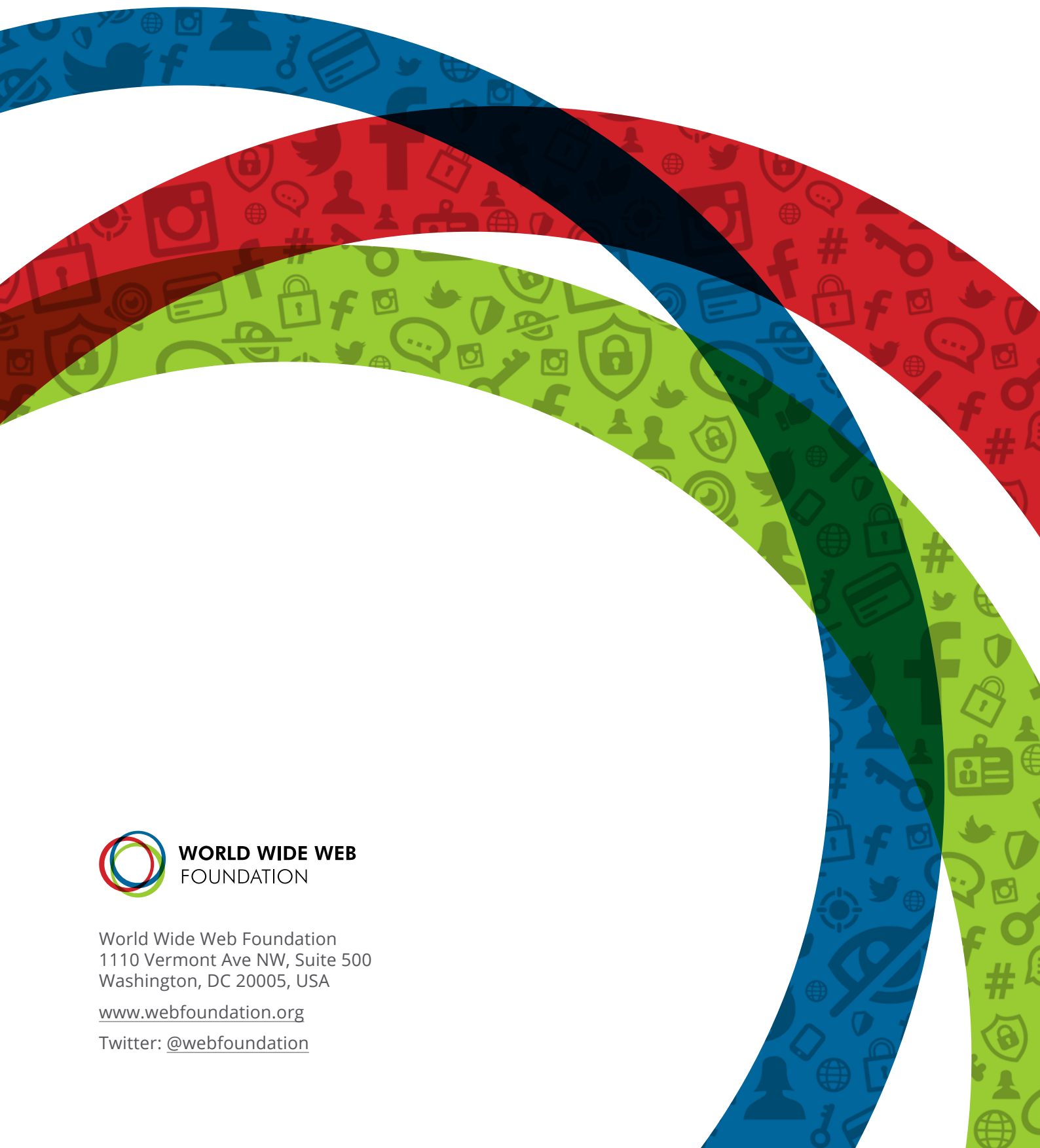
Rice, E., Haynes, E., Royce, P., Thomson, S. 2016. Social media and digital technology use among Indigenous young people in Australia: a literature review. *International Journal for Equity in Health*. 15 (81): 1-16

Schulhofer, S. 2016. An international right to privacy: be careful what you wish for. *International Journal of Constitutional Law*. 14:238-261.

Web Foundation. 2017. *Personal Data: An Overview of Low and Middle Income Countries*. Web Foundation: Washington, DC.

Wisniewski, P., Knijnenburg, P., Lipford, H.R., 2017. Making privacy personal: Profiling social network users to inform privacy education and nudging. *International Journal of Human-Computer Studies*. 98:95-108

Xiao, X., Tillman, N., Fahndrich, M., de Hellaeux, J., Moskal, M. and Xie, T. User-aware privacy control via extended static-information flow analysis. *Autom Softw. Eng.* 22: 333-366



WORLD WIDE WEB
FOUNDATION

World Wide Web Foundation
1110 Vermont Ave NW, Suite 500
Washington, DC 20005, USA

www.webfoundation.org

Twitter: [@webfoundation](https://twitter.com/webfoundation)