

Information sharing behavior on social media in the Asian Global South

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1 Introduction

Social media is increasingly becoming synonymous with the internet in many Global South countries (LIRNEasia, 2019). For example, nationally representative data of the 15-65 population of India from the *AfterAccess* surveys shows that 19 % report using the internet and 15 % report using social media – the data shows that those that use social media are also internet users. The survey shows that many other countries in the Global South follow the same pattern. At the same time, the survey data shows that as high as 52-86% of users read news on social media, with varying levels of trust in the news and information they read through this avenue.

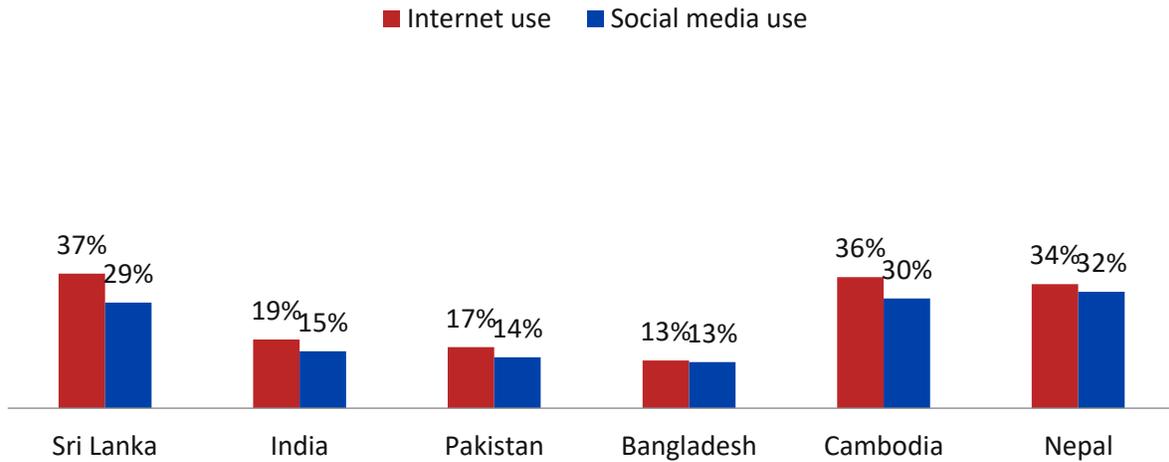
Unlike the Global North, most users are experiencing the internet and social media for the first time via mobile browsers and apps, with vastly lower levels of digital skills and literacy. Therefore it becomes increasingly pertinent to understand how people are using social media in these contexts. Of particular interest is if and how users choose to share both personally information as well as news and other content.

The paper is based on the analysis of the Asian *AfterAccess* survey data from six countries: Sri Lanka, India, Pakistan, Bangladesh, Cambodia and Nepal.

2 Context

Globally, it is estimated that close to 3.5 billion people, or 45% of the global population, were actively on social media by January 2019 (Hootsuite & We Are Social, 2019). According to *AfterAccess* survey data, in the Asian Global South, by early 2019 social media uptake was still hovering between levels as low as 13% of the 15-65 population in Bangladesh, to highs of 32% of the same population in Nepal (Figure 1), similar to internet use levels. Within countries, rates of uptake were similarly varied, with women, those living in rural areas, those from older age groups, etc., having considerably lower rates of uptake than their counterparts. However, the fact that that between 64-89% of current internet users in the survey countries came online in the last 3 years (Table 1) indicates that usage is growing at a rapid pace.

Figure 1. Social media use in six Asian countries (% of aged 15-65 population)



Source: AfterAccess nationally representative surveys, 2019

Table 1. Internet users that came online in the last three years (% of aged 15-65 Internet users)

Sri Lanka	India	Pakistan	Bangladesh	Cambodia	Nepal
59%	73%	89%	66%	72%	64%

Source: AfterAccess nationally representative surveys, 2019

Given that many of these first-time users, with little or no digital skills are joining social media – for some first-time users, social media is in fact the first step to the internet – it is important to understand how people are using social media in these contexts, particularly with respect to information sharing behavior. Information sharing is a significant use of social media and includes the sharing or disclosure of personal information on one’s profile page, as well as the re-sharing or forwarding of content (news or other information) through social media to other platform users.

Understanding if and how users share such kinds of information is important to gauge the extent to which they are exposed to various forms of digital risks and potential harms. Risks and harms resulting from sharing personal information (real names, gender, ethnicity, political affiliations, etc.) publicly can include those experienced at the direct and personal level, such as online harassment, bullying, personal privacy violations, etc. (Hurulle, Galpaya, & Ababakirov, 2018; Amarasinghe, 2018). The risks at a more remote level (which many users are unaware of) include the collection and/or mining of that data by platforms, governments or others with the technical know-how to use it to monetize it (Cadwalladr & Graham-Harrison, 2018) or use it for state monitoring (Mozur, 2019).

Risks and harms of sharing un-verified news and information on social media can also have consequences as far as misinformation as well as disinformation (Allcott & Gentzkow, 2017), which if they remain unchecked can have grave offline consequences at a society-wide level trickling down to the personal level; the example of the (ICG, 2019). The AfterAccess data shows that as high as 52-86% of users read news on social media (Figure 3), with varying levels of trust in the news and information they read through this avenue.

The risks of being affected by these harms in general is higher among the marginalized, specifically women (Amarasinghe, 2018), the less educated, those who reveal more personal information about themselves which allows them to be identified (Hurulle, Galpaya, & Ababakirov, 2018).

In the context of sharing personal information, this paper tries to understand what types of information (e.g., real name, age, marital status, religion, sexual orientation, etc.) users share on their profiles. In the context of sharing other information, we will analyze data collected on if and how people share information and content (including news) on or through social media, to what extent they trust that information, and whether or not they try to verify that information before they reshare it, if at all. Much of the existing research on motivations for sharing information on social media comes from the technology adoption, or theoretical approach (e.g., Thompson, Wany and Daya, 2019); this paper attempts to look at the problem from an empirical approach, similar to Chabossou, Stork, Stork and Zahonogo (2009) among others, to understand the factors which can predict sharing behavior on social media, specifically whether or not the individual is likely to share or not, and if they do, whether they are likely to verify the content first.

Therefore, the research questions of this study are:

- i. What types of personally information do social media users in the survey countries disclose on social media?
- ii. What factors can predict whether or not social media users in the survey countries choose to share news and forwarded messages on social media?
- iii. What factors can predict whether or not social media users in the survey countries who *do* share news and forwarded messages on social media, verify the content before sharing?

3 Methodology

3.1 Survey methodology

The paper is based on analysis of the *AfterAccess*¹ data gathered through nationally representative ICT access and use surveys conducted in Sri Lanka, India, Pakistan, Bangladesh, Cambodia and Nepal in 2017-2019. This survey sample size in the six Asian study countries was in excess of 15,000 individuals in total (Table 2).

Table 2: Sample size and composition

Country	Sample size	Urban	Rural	Margin of error (+/-)
Sri Lanka	2,017	803	1,214	3%
India	5,069	2,200	2,869	3%
Bangladesh	2,002	793	1,209	3%
Pakistan	2,020	808	1,212	3%
Cambodia	2,123	897	1,226	3%
Nepal	2,008	1,203	805	3%
Total	15,250	5,144	10,106	

Multi-stage stratified sampling was used to ensure representation of the target population (15-65 year-old population) within an error margin of +/- 3%.² The samples were designed to have more than the required number of cases in urban regions in order to increase the number of internet users included in the study. To remove the effect of this oversampling the data was weighted before running analysis.

All survey respondents were asked if they use social media or not; those that did were asked whether they shared any of the following personal information on their social media profiles: real name, gender, age, marital status, mobile number / email address, pictures or videos you and your family and friends, religion , political views and sexual orientation. Respondents' use of traditional mass media was inferred from questions on how many hours per week they read the newspaper, watch TV or listen to the radio.

¹ *AfterAccess* is a Global South data collection initiative, whereby nationally representative survey data on ICT access and use was collected from 23 countries in three regions: Africa, Asia and Latin America. This paper is based on data collected in six of the Asian survey countries only. *AfterAccess* is a project jointly carried out by LIRNEasia, Research ICT Africa and DIRSI, funded through grants from IDRC (Canada), Sida (Sweden) and the Ford Foundation. See <http://www.afteraccess.net/> for more information.

² For full details on survey methodology see: see <https://lirneasia.net/wp-content/uploads/2018/10/LIRNEasia-AfterAccess-India-and-Bangladesh-method-note.pdf>; adaptations of the calculation method were taken in other survey countries.

The degree to which respondents trust news and information received through traditional mass media and social media were also asked, as was if and how social media users shared/forwarded news, information or other content received on social media.

Other classification data were also collected, such as demographic and socio-economic details of the respondent.

3.2 Logistic regression methodology

Logistic regression modeling is used to understand the factors which predict (a) whether or not a social media user is likely to share news and information via social media (sharing model); and if they do, (b) whether they are likely to verify it before doing so (verification model).

Table 3: Outcome variables for logit models

Model	Y value	Meaning
Sharing	1	Shares news and information on social media
	0	Does not share news or information on social media
Verification	1	Always verifies the truthfulness of the news or information before sharing
	0	Share and information news without verifying truthfulness on social media

Logit regressions are a form of binary regression modeling, which is suited to the case where the variable of interest (in this case sharing and verification) is dichotomous (Table 3). Similar applications to technology adoption and use have been made by Rice and Katz (2003), Chabossou et al. (2009), de Silva, Zainudeen and Ratnadiwakara (2009), Amarasinghe (2018), inter alia, to understand what factors contribute to the odds (directly related to the probability) of the outcome of interest happening or not (in these cases, adoption). Logit models tie the determining and mediating factors to the outcome (Y) variable (see Table 3) through contributions to the probability of the outcome variable taking a value above or below a threshold that would lead to the observable outcome, in this case (a) whether or not the respondent shares information and news on social media and (b) whether they verify it first. Therefore, the logit model assigns a probability of sharing based on the various determining and mediating factors expected to predict news and information sharing as follows:

$$Probability (Y) = \frac{1}{1 + \exp(-\alpha - \sum_{i=1}^n \beta_i X_i)}$$

Where Y is the outcome of interest (sharing or verification) a dichotomous variable as per Table 2, and X_i are the factors that impact such activity (also referred to as determining and mediating factors or influential factors). β_i values are factor sensitivities of each influential factor, X_i . Influential factors, X_i , can be quantitative or qualitative variables; dummy variables are used to represent the 'states' in case of qualitative variables.

The use of an exponential function to model the dependent variable ensures the predicted value of the dependent variable is bound between 0 and 1.

4 Personal information disclosure on social media

Social media using respondents (ranging from 13%-32% of the 15-65 population in the six countries; Figure 1) were asked whether they disclosed any of the following personal information on their social media profiles: their real name, gender, age, marital status, contact information (mobile number or email address), pictures or videos of themselves/their family/friends, religion, political views and sexual orientation.

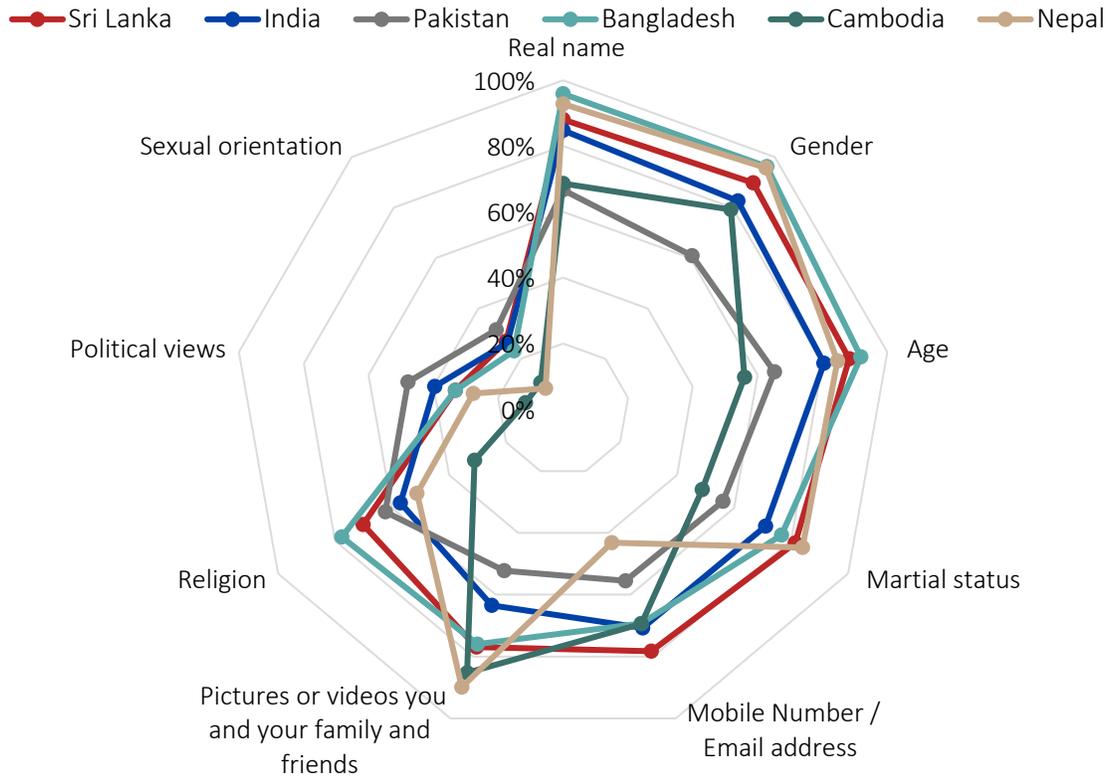
As a whole, Pakistani and Cambodian social media users were more cautious in disclosing personally identifying information on social media; higher numbers of Bangladeshi, Sri Lankan and Nepali social media users disclosed personal information (Figure 2).

In terms of the type of the information disclosed, real name, gender and age are most commonly shared. With the exception of Pakistan, the most conservative society of the six studied, most shared their gender on their profiles. A large number of people shared their contact information on social media, particularly Sri Lanka at 78%. More than 50% in each country shared pictures and videos of their family and friends.

More sensitive information such as political views and sexual orientation are shared less across countries (most so in Cambodia and Nepal), suggesting both a higher concern for privacy of this information but also perhaps lower levels of tolerance for the range of views and orientations beyond the mainstream. Religion is less often shared in Cambodia, Nepal and India also.

Gender-based analysis of the types of information disclosed (Table 4), show that women across countries are more cautious, with lower percentages disclosing their personal information on their profiles, particularly when it comes to contact information and pictures or videos – most likely to avoid the risk of gender-based online harassment.

Figure 2. Types of information disclosed on social media. (% of age 15-65 social media users)



Source: AfterAccess nationally representative surveys, 2019

Table 4. Disclosure behavior by gender

		Real name	Gender	Age	Marital status	Mobile number	Pictures or videos	Religion	Political views	Sexual orientation
Sri Lanka	Male	92%	95%	94%	88%	86%	85%	75%	32%	28%
	Female	82%	82%	80%	72%	67%	66%	63%	35%	26%
India	Male	89%	87%	84%	73%	74%	65%	58%	39%	25%
	Female	74%	72%	72%	66%	62%	60%	55%	40%	29%
Pakistan	Male	75%	66%	71%	61%	64%	53%	68%	54%	37%
	Female	47%	47%	51%	43%	34%	50%	48%	33%	18%
Bangladesh	Male	98%	97%	93%	78%	72%	79%	78%	35%	22%
	Female	88%	92%	87%	71%	59%	64%	77%	28%	28%
Cambodia	Male	67%	80%	58%	48%	74%	86%	34%	14%	10%
	Female	70%	79%	54%	49%	65%	85%	29%	9%	11%

Nepal	Male	96%	99%	89%	85%	51%	94%	55%	38%	11%
	Female	89%	92%	79%	83%	33%	85%	47%	15%	5%

Source: AfterAccess nationally representative surveys, 2019

Between urban and rural social media users in the six countries, in most instances urban social media users revealed more compared to rural social media users. The urban-rural disparity was less severe than the gender disparity seen above. This was the same across different types of information.

Educated social media users revealed more of their personal information on social media (Table 5). It is interesting to see in all countries more educated social media users revealed their mobile number or email address on social media.

Table 6 indicates that higher income earners also tend to reveal more of their personal information in most instances, while Table 7 indicates that as a whole across countries, younger social media users revealed more personal information on social media.

With the exception of the gender analysis, these findings therefore suggest that the more tech-savvy of users (who have been seen to be largely urban, more educated, higher income earning, younger in other work; Mohamed, Zainudeen and Amarasinghe, forthcoming) tend to reveal more personal information on social media, while the less-tech savvy tend to be more cautious.

Table 5. Disclosure behavior by level of education

		Real name	Gender	Age	Marital status	Mobile number	Pictures or videos	Religion	Political views	Sexual orientation
Sri Lanka	Primary or none	77%	83%	79%	71%	67%	67%	50%	33%	28%
	Secondary or higher	89%	90%	89%	82%	79%	78%	72%	33%	27%
India	Primary or none	67%	65%	64%	60%	60%	54%	55%	38%	21%
	Secondary or higher	89%	87%	85%	74%	73%	66%	57%	40%	28%
Pakistan	Primary or none	70%	60%	67%	55%	55%	46%	66%	48%	35%
	Secondary or higher	59%	64%	61%	59%	57%	66%	55%	48%	24%
Bangladesh	Primary or none	94%	91%	90%	68%	63%	63%	73%	20%	18%
	Secondary or higher	97%	98%	93%	79%	72%	80%	79%	37%	25%
Cambodia	Primary or none	64%	75%	48%	43%	68%	81%	28%	6%	12%

	Secondary or higher	73%	83%	63%	54%	71%	89%	34%	16%	9%
Nepal	Primary or none	91%	92%	66%	72%	37%	87%	34%	11%	0%
	Secondary or higher	93%	97%	88%	86%	44%	91%	55%	31%	10%

Source: AfterAccess nationally representative surveys, 2019

Table 6. Disclosure behavior by level of income

		Real name	Gender	Age	Marital status	Mobile number	Pictures or videos	Religion	Political views	Sexual orientation
Sri Lanka	Above average income	90%	93%	90%	84%	82%	79%	71%	38%	31%
	Below average income	87%	87%	88%	76%	70%	73%	68%	31%	23%
	Zero income	82%	83%	83%	79%	73%	73%	65%	20%	16%
India	Above average income	87%	87%	84%	80%	71%	69%	59%	39%	26%
	Below average income	87%	84%	81%	72%	72%	64%	62%	46%	28%
	Zero income	83%	70%	62%	43%	46%	25%	33%	29%	12%
Pakistan	Above average income	74%	63%	71%	59%	61%	47%	66%	51%	40%
	Below average income	60%	70%	65%	59%	53%	51%	73%	47%	17%
	Zero income	45%	36%	38%	40%	35%	79%	31%	33%	15%
Bangladesh	Above average income	96%	97%	92%	77%	70%	81%	80%	34%	20%
	Below average income	99%	99%	95%	76%	80%	76%	79%	35%	21%
	Zero income	91%	86%	70%	55%	23%	56%	86%	42%	54%
Cambodia	Above average income	72%	77%	58%	55%	72%	87%	35%	13%	14%
	Below average income	66%	81%	54%	44%	68%	84%	28%	11%	8%
Nepal	Above average income	99%	98%	94%	91%	57%	93%	69%	51%	13%
	Below average income	96%	98%	86%	87%	47%	94%	59%	39%	13%

Source: AfterAccess nationally representative surveys, 2019

Table 7. Disclosure behavior by age

		Real name	Gender	Age	Marital status	Mobile number	Pictures or videos	Religion	Political views	Sexual orientation
Sri Lanka	15 - 25	87%	92%	91%	80%	82%	77%	75%	31%	27%
	26 - 35	90%	87%	88%	83%	74%	76%	70%	31%	23%
	36 - 45	87%	92%	86%	82%	81%	78%	70%	41%	34%
	46 - 55	88%	84%	81%	77%	77%	72%	53%	31%	22%
	56 - 65	89%	89%	93%	85%	68%	87%	65%	32%	30%
India	15 - 25	85%	82%	81%	70%	73%	58%	56%	41%	27%

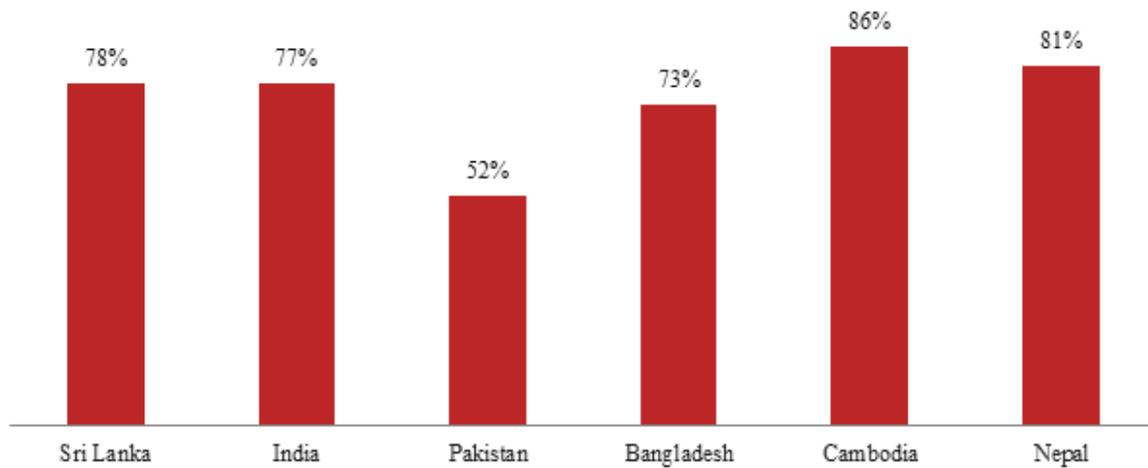
	26 - 35	88%	85%	83%	76%	67%	66%	53%	35%	25%
	36 - 45	82%	85%	73%	70%	68%	78%	65%	39%	25%
	46 - 55	82%	75%	81%	74%	74%	69%	69%	44%	33%
	56 - 65	76%	64%	69%	53%	54%	70%	38%	39%	26%
Pakistan	15 - 25	59%	51%	60%	44%	54%	51%	55%	43%	36%
	26 - 35	77%	67%	75%	68%	68%	59%	72%	48%	33%
	36 - 45	63%	72%	53%	80%	46%	42%	81%	76%	14%
	46 - 55	92%	93%	92%	74%	44%	33%	56%	23%	5%
	56 - 65	76%	76%	76%	61%	52%	76%	61%	61%	49%
Bangladesh	15 - 25	99%	98%	93%	70%	67%	73%	78%	35%	27%
	26 - 35	93%	94%	93%	80%	76%	79%	76%	27%	17%
	36 - 45	93%	95%	88%	94%	71%	78%	74%	39%	27%
	46 - 55	97%	100%	91%	82%	49%	85%	100%	52%	23%
	56 - 65	100%	100%	49%	13%	36%	25%	64%	13%	13%
Cambodia	15 - 25	64%	81%	53%	44%	69%	84%	29%	10%	9%
	26 - 35	70%	78%	57%	49%	67%	90%	34%	15%	12%
	36 - 45	70%	74%	59%	56%	80%	84%	36%	12%	17%
	46 - 55	85%	75%	60%	64%	69%	73%	34%	9%	11%
	56 - 65	81%	96%	74%	52%	64%	86%	18%	1%	1%
Nepal	15 - 25	89%	96%	81%	80%	42%	89%	45%	20%	6%
	26 - 35	94%	96%	88%	85%	40%	92%	53%	29%	9%
	36 - 45	96%	95%	85%	93%	48%	85%	62%	35%	13%
	46 - 55	100%	100%	93%	87%	63%	95%	63%	51%	7%
	56 - 65	100%	100%	71%	71%	79%	100%	50%	79%	29%

Source: AfterAccess nationally representative surveys, 2019

5 Sharing of news and information on social media

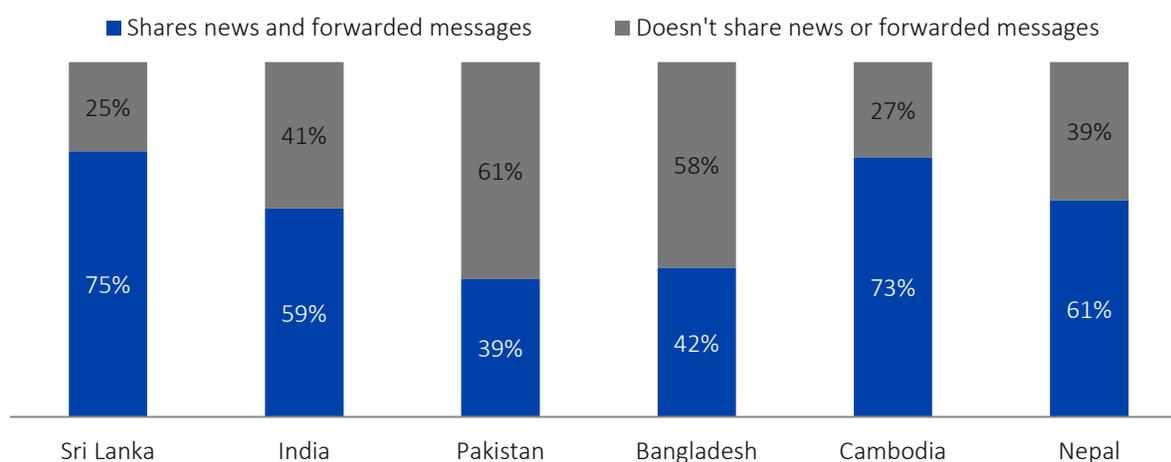
The AfterAccess data shows that many social media users in the six study countries use it to read news, as well as share news and other information that they receive/read on social media. Figures 3 and 4 show the variation across the countries.

Figure 3. Social media users that read news and on social media (% of age 15-65 social media users)



Source: AfterAccess nationally representative surveys, 2019

Figure 4. Social media users that share news and forwarded messages on social media (% of age 15-65 social media users)



Source: AfterAccess nationally representative surveys, 2019

The first logistic model was developed to identify what factors predict whether or not a social media user shares news and information on social media. The response variable (sharing news and information on social media) was predicted using demographic, economic, social, facilities and social media use characteristics of the respondents and social media behavior of the respondents. Table 9 explains the variables used to predict the sharing behavior of the social media users.

Table 8. Sharing model predictor variables

Type*	Variable	Remarks
Demographic	Gender	Binary variable
		0=Male, 1=Female
	Age	Scale variable
		Age record in number of years
Education	Scale variable	
	Number of years of schooling of the respondent	
Marital Status	Categorical variable 3 levels (1. Married, 2. Single, 3. Other)	
	Reference category: Married	
Economic	Employment	Binary variable
		0=Not employed, 1=Employed
	SEC	Categorical variable with 5 levels (A, B, C, D, E).
Socio economic classification of respondent's household		
Social	Network pressure	Scale variable with values ranging from 1 to 5.
		Number of respondents' closest five contacts that use social media

	Social activities with friends	Scale variable
		Number of hours per week spend socializing face to face with friends (excl. household members)
	Social activities with public groups	Scale variable
		Number of hours per week spend socializing face to face with interest groups (religious, political, sport)
Facilitating conditions	Urbanity	Binary variable
		0=Rural, 1=Urban
	Country*	Categorical variable with 6 levels representing 6 countries in all country models in the order of GNI per capita
		Reference category: Sri Lanka
Personal ownership of desktop or laptop	Binary variable	
	0=does not own a desktop or a laptop, 1=owns a desktop or a laptop	
Social media use	Length of using social media	Categorical variable with 3 levels (1. Less than a year, 2. 1-5 years, 3. More than 5 years)
		Reference category: 1. Less than a year
	Number of 'friends'/ contacts on Social media	Categorical variable with 3 levels (0. Below 100, 1.101-500, 2. More than 500, 3. Don't know, 4. Do not use these)
		Reference category: 10. Not using it every day
	Information shared on social media	9 Binary variables for; 1. Real name, 2. Gender, 3. Age, 4. Marital status, 5. Mobile Number / Email address, 6. Pictures or videos you and your family and friends, 7. Religion, 8. Political view, 9. Sexual orientation
		Whether the respondent discloses the information on their profile
		0=No, 1=Yes
	Use of social media	8 Binary variables for the use of social media; 1. Reading news, 2.To play games , 3. To make professional and business contacts, 4. To market your products/services, 5. To follow government Social media pages (to look for jobs or updates on policies), 6. To stay in contact with friends and family and to make new friends, 7. To follow local politicians, 8. To get opinions / share your experience,
		Whether the respondent use social media for each activity
		0=No, 1=Yes
	Level of comfort to discuss different topics on social media	6 Categorical variables on the topics discussed on social media; 1. Gossip between friends, 2. Professional / work related information, 3. Religious matters, 4. Political matters, 5. Financial information (e.g. info on things you buy, where you buy from, etc.), 6. Health and sexual matters.
		Levels of the categorical variables (0. Not at all comfortable, 1. Yes, but only in a closed group, 2. Yes, publicly, 3. I don't do this anyway)
Reference category: 0. Not at all comfortable		

	Amount of social media friends met in person	Categorical variable with 5 levels (1. All of them, 2. Most of them, 3. About half of them, 4. A few of them, 5. None of them)
		Number of social media friends that met in person by the respondent
		Reference category: 1, All of them
	Accepting friend requests	Categorical variable with 3 levels (1. Only known contacts, 2. Based on some conditions, 3. Accept all requests).
		The way that the respondent accepts the friend request on social media
		Reference category: 1, Only known contacts
Trust on the news read on social media	Five-point Likert scale question (1. Strongly do not trust---5. Strongly trust)	

The variable selection was based on the significance that each variable contributes to the model. Some variables were dropped from the model as they did not significantly contribute to the model.

Table 9 summarizes the model developed, indicating the sign of the relationship and the magnitude of the relationship using the following abbreviations; the full statistical output is provided in Annex 1.

- + significant positive relationship at 5% significance level
- - significant negative relationship at 5% significance level
- ++ significant positive relationship at 1% significance level
- -- significant negative relationship at 1% significance level

The model has a good model fit with a Nagelkerke R Square value of 0.332. The model classifies 75% of the cases correctly.

Table 9. Model output: Sharing model

Type	Variable	Categories	Relationship	Odds ratio	
Demographic	Gender		...	...
	Age		...	...
	Education		+	1.035	
	Marital status	Married (reference category)			
		Single	
Other			...	...
Economic	Employment		...	...
	SEC	E (reference category)			
		A	
		B	
		C	

		D	...	...
Social	Network pressure		...	...
	Social activities with friends		...	...
	Social activities with interest groups		-	0.977	
Fac	Personal ownership of desktop or laptop		+	1.338	
	Urbanity		+	1.268	
Social media use	Length of using social media	Less than a year (reference category)			
		1-5 years	++	1.378	
		More than 5 years	++	1.731	
	Number of friend's contacts on Social media	Below 100 (reference category)			
		101-500	+	1.29	
		More than 500	++	1.528	
		Don't know	--	0.552	
	Information shared on social media	Real name		...	...
		Gender		+	1.55
		Age		...	...
		Marital status		...	...
		Mobile number/ Email address		...	...
		Religion		...	...
		Political views		...	...
		Sexual orientation		-	0.73
	Use of social media	Reading news		++	1.431
		To play games		...	...
		To make professional and business contacts		...	...
		To market your products/services		--	0.425
		To follow government Social media pages		++	1.539
		To stay in contact with friends and family and to make new friends		+	1.478
		To follow local politicians		...	...
		To get opinions / share your experience		++	1.725
	Gossip between friends	Not at all comfortable (reference category)			
		Yes, but only in a closed group		++	1.81
		Yes, publicly		++	2.802
		I don't do this		++	1.686
	Professional / work related information	Not at all comfortable (reference category)			
		Yes, but only in a closed group		...	...
		Yes, publicly		...	...
		I don't do this		...	...
	Religious matters	Not at all comfortable (reference category)			
		Yes, but only in a closed group		...	...
		Yes, publicly		...	...
		I don't do this		...	...
	Political matters	Not at all comfortable (reference category)			
		Yes, but only in a closed group		...	...
		Yes, publicly		...	...

		I don't do this	...	...
	Financial information (eg. info on things you buy, where you buy from, etc)	Not at all comfortable (reference category)		
		Yes, but only in a closed group	...	...
		Yes, publicly	...	...
		I don't do this	...	...
	Health and sexual matters.	Not at all comfortable (reference category)		
		Yes, but only in a closed group	+	1.469
		Yes, publicly	++	2.178
		I don't do this	...	...
	Amount of social media friends met in person	All of them (reference category)		
		Most of them	++	1.652
		About half of them	++	2.207
		A few of them	++	1.784
		None of them	...	1.4
	Accepting friend requests	Only known contacts (reference category)		
		Based on some conditions	...	...
		Accept all requests	...	...
Facilitation	Country	Sri Lanka (reference category)		
		India	--	0.399
		Pakistan	--	0.426
		Bangladesh	--	0.168
		Cambodia	...	1.179
		Nepal	--	0.354
	Constant		--	0.145

Among the demographic variables, only education seems to have a significant relationship with whether a person shares news on social media. It is a positive relationship which means one unit increase in the number of years of schooling increase the odds of sharing news on social media by around 4%. The economic variables do not contribute significantly to the model. Among the social variables, whether a person engages with interest groups (religious, political, sport) has a significant negative relationship with the sharing behavior, though the when number of hours spent engaging in these activities increases by one hour per week, the odds of sharing news on social media reduce by 2%. All facilitation variables significantly contribute to the model. Owning a personal desktop or a laptop increases the odds of sharing news on social media by 34% and urban dwellers are more likely to share news on social media compared to rural dweller.

The model suggests that a user's social media behavior is more of a predictor of whether or not a person is likely to share news and information on it. Specifically, the longer a social media user has used social media has a positive relationship with sharing news on social media: a user who used social media for

more than five years is 73% more likely to share news on social media compared to a less than a one-year user. The number of social media friends or contacts also has a positive relationship with the sharing behavior: social media users with more than 500 friends have 53% higher odds of sharing news on social media compared to a one with less than 100 friends. Those who display their gender on their profiles are more likely to share, while those that share their sexual orientation are less likely to share news and information on social media.

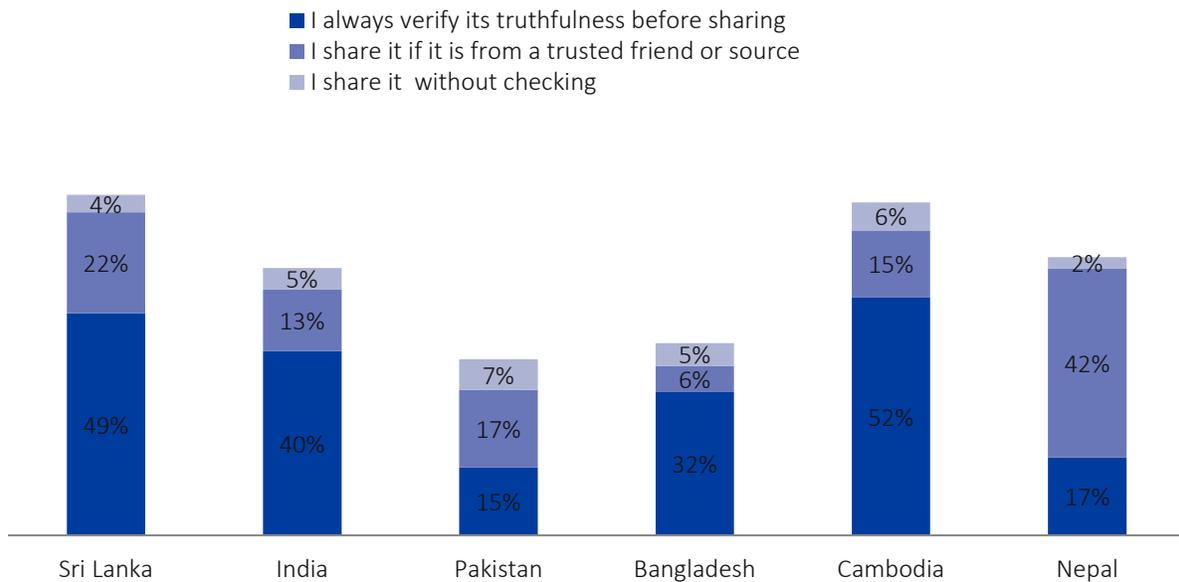
The different activities engaged in also has a significant relationship with sharing behavior. People who use social media to read news, to follow government social media pages, to stay in contact with friends and family and to make new friends and to get opinions and share their experiences are more likely to share. While consequently, people who use social media to market their products or services are *less* likely to share news on social media, with a 58% reduced odds of sharing news compared to those that don't. Being more comfortable social media user are to discuss gossip between friends, health as well as sexual matters on social media also increases the odds of sharing on social media.

The country dummy variable is also significantly contributing to the model, indicating that country-level differences are significant.

6 Verification of news and information shared on social media

Respondents were asked in relation to news on their newsfeed or forwarded messages that are received, what they do with it – whether they re-share it without checking, re-share it depending on the sender/source, or they verify it then share, or they don't share it at all. Figure 4 shows the responses indicate among those that *do* share, a considerable numbers of social media users claim to verify the news before resharing especially in Sri Lanka, India and Cambodia.

Figure 5. Verification of content before sharing on social media (% of social media users aged 15-65)



Source: AfterAccess nationally representative surveys, 2019

Similar to the previous analysis, a binary logistic regression model was developed to identify the characteristics that predict whether or not social media users that share news and forwarded messages in social media verify its truthfulness or not before resharing (verification model).

A similar set of variables were used as in the sharing model with one additional variable, the degree of trust in the news read on social media.

Table 10. Model output: Verification model

Type	Variable	Categories	Relationship	Odds ratio	
Demographic	Gender		...	...
	Age		...	...
	Education		...	...
	Marital status	Married (reference category)			
Single			...	...
Other			...	...
Economic	Employment		...	...
	SEC	E (reference category)			
		A		...	...
		B		...	...
		C		...	...
D		...	...
Social	Network pressure		...	...
	Social activities with friends		...	...
	Social activities with public groups		...	...
Facilitating factors	Personal ownership of desktop or laptop		...	...
	Urbanity		...	...
Social media use	Length of using social media	Less than a year (reference category)	...	...
		1-5 years	...	...
		More than 5 years	...	...
	Number of friend's contacts on Social media	Below 100 (reference category)			
		101-500		...	...
		More than 500		...	...
	Information shared on social media	Don't know		...	...
		Real name		-	.67
		Gender		...	...
		Age		...	...
		Marital status		-	.68
		Mobile number/ Email address		...	...
		Religion		...	...
		Political views		...	...
	Sexual orientation		...	...
	Use of social media	Reading news		...	...
		To play games		+	1.32
		To make professional and business contacts		...	...
		To market your products/services		++	1.57
		To follow government Social media pages		...	...
		To stay in contact with friends and family and to make new friends		...	...
		To follow local politicians		...	...
	To get opinions / share your experience		...	...
	Gossip between friends	Not at all comfortable (reference category)			
		Yes, but only in a closed group		...	...
		Yes, publicly		...	...
		I don't do this		...	...
Professional / work related information	Not at all comfortable (reference category)				
	Yes, but only in a closed group		...	...
	Yes, publicly		...	...

	I don't do this	...	...
Religious matters	Not at all comfortable (reference category)		
	Yes, but only in a closed group	...	...
	Yes, publicly	...	...
	I don't do this	...	...
Political matters	Not at all comfortable (reference category)		
	Yes, but only in a closed group	...	...
	Yes, publicly	...	...
	I don't do this	...	...
Financial information (eg. info on things you buy, where you buy from, etc)	Not at all comfortable (reference category)		
	Yes, but only in a closed group	...	...
	Yes, publicly	...	...
	I don't do this	...	...
Health and sexual matters.	Not at all comfortable (reference category)		
	Yes, but only in a closed group	...	...
	Yes, publicly	...	...
	I don't do this	...	...
Amount of social media friends met in person	All of them (reference category)		
	Most of them	-	.890
	About half of them	-	.780
	A few of them	-	.584
	None of them	-	.598
Accepting friend requests	Only known contacts (reference category)		
	Based on some conditions	...	...
	Accept all requests	...	...
Trust on the news read on social media		--	.86
Country	Sri Lanka (reference category)		
	India	...	.00
	Pakistan	+	1.54
	Bangladesh	-	.57
	Cambodia	++	1.18
	Nepal	++	2.29
Constant		--	.33

Unlike in the sharing model few variables have significant relationships with the outcome variable (i.e., verification before sharing). The verification model has a lower model fit compared to the sharing model (with a Nagelkerke R Square value of 0.24) though the model correctly classifies 70% of cases.

Most strikingly, demographic, economic, social and facilitation (except for country dummies) variables do not contribute to the model. Most of the social media use variables also do not significantly contributing to the model either.

Types of social media users that are more likely to verify news and forwarded messages before sharing are social media gamers, those who use it to market their products and services those that know their social media friends/contacts in person. These indicate that a concern for maintaining one's reputation or credibility is a likely motivator. Those who are less likely to verify are those that disclose their real name

and marital status on their profiles, oddly; but more intuitively, those who trust news read on social media more are less likely to verify content before resharing.

7 Conclusions and recommendations

It is clear that social media users in the countries that are the focus of this paper are sharing large amounts of personal data publicly through their profile data. While the AfterAccess surveys only documented what information they are sharing, subsequent qualitative research in Sri Lanka indicates largely that even the most tech-savvy social media users are only vaguely aware of the implications of this as far as their rights to privacy, security and safety are concerned.³ Further research is needed to identify if this is the case across the wider population in these countries, and if so address this awareness problem, so that users can make informed choices about what they choose to disclose on social media.

The data highlights the categories of people that are less likely to disclose personal information, for instance the rural, the less educated, lower income earners, women, etc. This type of information can shed light on the types of biases and under-representation of certain categories of people in large datasets arising from taken from social media platforms, when used for social analysis.

The analysis of sharing behavior indicates that rather than individual characteristics predicting whether or not a social media user is likely to share news and forwarded messages, it mostly depends on the individual's social media behavior, with more avid social media users more likely to share and re-share. As such when digital/online media literacy are designed, these factors should be taken into account.

The analysis of verification behavior showed that the most important factors in predicting whether or not a social media user verifies information before re-sharing (given that they do share) are whether or not there is some reputational risk involved, and the overall level of trust that they have in news read through social media. Further analysis of the survey data (shown in Annex 3) shows that considerable proportions of social media users in each country in fact doubt the trustworthiness of news read on social media. But the data further shows that this is not a phenomenon limited to social media, but it is also true of traditional media with similarly high levels of distrust in them. This signals that there are deeper challenges to address in the media industry as a whole.

In both sets of models the country variables indicated that there are specific country-factors at play. This can include the impacts of differing political environments, legal frameworks, socia-cultural factors relating to perceptions of privacy and other rights, etc. Further research is needed to understand the

³ Forthcoming research from LIRNEasia.

individual country contexts, and what implications these may have on information sharing behaviors in each country.

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Annex 1

Table 11: Sharing model full statistical outputs

Type	Variable	Categories	B	S.E.	Wald	df	Sig.	Exp(B)	
Demographic	Gender		...	...	...	...	...	...
	Age		...	...	...	...	...	...
	Education		0.035	0.014	6.495	1	0.011*	1.035	
	Marital status	Married (reference category)				
		Single	
		Other	
Economic	Employment		...	...	...	...	...	...
	SEC	E (reference category)			...	...	...
		A		...	...	...	...	...
		B		...	...	...	...	...
		C		...	...	...	...	...
		D		...	...	...	...	...
Social	Network pressure		...	...	...	...	...	...
	Social activities with friends		...	...	...	...	...	...
	Social activities with public groups		-0.023	0.009	6.526	1	0.011*	0.977	
Facilitating factors	Personal ownership of desktop or laptop		0.291	0.143	4.139	1	0.042*	1.338	
	Urbanity		0.238	0.103	5.37	1	0.02*	1.268	
Social media use	Length of using social media	Less than a year (reference category)	0	0	10.598	2	000**	0	
		1-5 years	0.32	0.117	7.441	1	000**	1.378	
		More than 5 years	0.549	0.187	8.598	1	000**	1.731	
	Number of friend's contacts on Social media	Below 100 (reference category)				41.255	4	000**	
		101-500	0.255	0.124	4.196	1	0.041*	1.29	
		More than 500	0.424	0.151	7.872	1	000**	1.528	
		Don't know	-0.594	0.165	12.952	1	000**	0.552	
	Information shared on social media	Real name	
		Gender		0.438	0.177	6.115	1	0.013*	1.55
		Age	
		Marital status	
		Mobile number/ Email address	
		Religion	
		Political views	
Sexual orientation			-0.314	0.148	4.52	1	0.034*	0.73	
Use of social media	Reading news		0.358	0.119	9.108	1	000**	1.431	

	To play games	...	...	...	...	...	...
	To make professional and business contacts	...	...	...	...	...	...
	To market your products/services	-0.856	0.159	29.007	1	000**	0.425
	To follow government Social media pages	0.431	0.129	11.207	1	000**	1.539
	To stay in contact with friends and family and to make new friends	0.391	0.184	4.494	1	0.034*	1.478
	To follow local politicians	...	...	...	...	...	...
	To get opinions / share your experience	0.545	0.113	23.242	1	000**	1.725
Gossip between friends	Not at all comfortable (reference category)			31	3	000**	
	Yes, but only in a closed group	0.593	0.162	13.392	1	000**	1.81
	Yes, publicly	1.03	0.187	30.345	1	000**	2.802
	I don't do this	0.522	0.2	6.799	1	000**	1.686
Professional / work related information	Not at all comfortable (reference category)			...	...	...
	Yes, but only in a closed group	...	...	...	...	...	...
	Yes, publicly	...	...	...	...	...	...
	I don't do this	...	...	...	...	...	...
Religious matters	Not at all comfortable (reference category)			...	...	...
	Yes, but only in a closed group	...	...	...	...	...	...
	Yes, publicly	...	...	...	...	...	...
	I don't do this	...	...	...	...	...	...
Political matters	Not at all comfortable (reference category)			...	...	...
	Yes, but only in a closed group	...	...	...	...	...	...
	Yes, publicly	...	...	...	...	...	...
	I don't do this	...	...	...	...	...	...
Financial information (eg. info on things you buy, where you buy from, etc)	Not at all comfortable (reference category)			...	...	...
	Yes, but only in a closed group	...	...	...	...	...	...
	Yes, publicly	...	...	...	...	...	...
	I don't do this	...	...	...	...	...	...
Health and sexual matters.	Not at all comfortable (reference category)			11.959	3	000**	
	Yes, but only in a closed group	0.384	0.178	4.643	1	0.031*	1.469
	Yes, publicly	0.778	0.231	11.333	1	000**	2.178

		I don't do this	...	...	...	...	...	...
	Amount of social media friends met in person	All of them (reference category)			17.208	4	000**	
		Most of them	0.502	0.186	7.286	1	000**	1.652
		About half of them	0.792	0.206	14.808	1	000**	2.207
		A few of them	0.579	0.18	10.319	1	000**	1.784
		None of them	0.337	0.205	2.691	1	...	1.4
	Accepting friend requests	Only known contacts (reference category)			...	...	...
		Based on some conditions	...	...	...	...	...	...
		Accept all requests	...	...	...	...	...	...
	Country	Sri Lanka (reference category)			88.691	5	000**	
		India	-0.919	0.178	26.678	1	000**	0.399
		Pakistan	-0.854	0.212	16.168	1	000**	0.426
		Bangladesh	-1.783	0.224	63.44	1	000**	0.168
		Cambodia	0.165	0.225	0.536	1	...	1.179
		Nepal	-1.039	0.183	32.332	1	000**	0.354
	Constant		-1.928	0.384	25.158	1	000**	0.145
<p>** Significant relationship at 5% significance level * Significant relationship at 1% significance level ... No significant relationship</p>								

Annex 2

Table 12. Verification model full statistical outputs

Type	Variable	Categories	B	S.E.	Wald	df	Sig.	Exp(B)	
Demographic	Gender		...	...	...	...	...	...
	Age		...	...	...	...	...	...
	Education		...	...	...	...	...	...
	Marital status	Married (reference category)	
		Single	
		Other	
Economic	Employment		...	...	...	...	...	...
	SEC	E (reference category)		...	...	...	...	...
		A		...	...	...	...	...
		B		...	...	...	...	...
		C		...	...	...	...	...
	D		...	...	...	...	...
Social	Network pressure		...	...	...	...	...	...
	Social activities with friends		...	...	...	...	...	...
	Social activities with public groups		...	...	...	...	...	...
Facilitating factors	Personal ownership of desktop or laptop		...	...	...	...	...	...
	Urbanity		...	...	...	...	...	...
Social media use	Length of using social media	Less than a year (reference category)	...	...	...	...	...	...
		1-5 years	...	...	...	...	...	...
		More than 5 years	...	...	...	...	...	...
	Number of friend's contacts on Social media	Below 100 (reference category)		...	...	...	...	...
		101-500		...	...	...	...	...
		More than 500		...	...	...	...	...
		Don't know		...	...	...	...	...
	Information shared on social media	Real name		-0.398	0.194	4.235	1	0.04*	0.671
		Gender	
		Age	
		Marital status		-0.385	0.162	5.623	1	0.018*	0.68
		Mobile number/ Email address	
		Religion	
		Political views	
		Sexual orientation	
	Use of social media	Reading news	
		To play games		0.274	0.123	4.978	1	0.026*	1.316
		To make professional and business contacts	
		To market your products/services		0.451	0.174	6.706	1	0.000**	1.569
		To follow government Social media pages	
		To stay in contact with friends and family and to make new friends	

		To follow local politicians	...	...	...	...	...	...
		To get opinions / share your experience	...	...	...	...	...	...
Gossip between friends		Not at all comfortable (reference category)			...	...	...
		Yes, but only in a closed group	...	...	...	...	...	...
		Yes, publicly	...	...	...	...	...	...
		I don't do this	...	...	...	...	...	...
Professional / work related information		Not at all comfortable (reference category)			...	...	...
		Yes, but only in a closed group	...	...	...	...	...	...
		Yes, publicly	...	...	...	...	...	...
		I don't do this	...	...	...	...	...	...
Religious matters		Not at all comfortable (reference category)			...	...	...
		Yes, but only in a closed group	...	...	...	...	...	...
		Yes, publicly	...	...	...	...	...	...
		I don't do this	...	...	...	...	...	...
Political matters		Not at all comfortable (reference category)			...	...	...
		Yes, but only in a closed group	...	...	...	...	...	...
		Yes, publicly	...	...	...	...	...	...
		I don't do this	...	...	...	...	...	...
Financial information (eg. info on things you buy, where you buy from, etc)		Not at all comfortable (reference category)			...	...	...
		Yes, but only in a closed group	...	...	...	...	...	...
		Yes, publicly	...	...	...	...	...	...
		I don't do this	...	...	...	...	...	...
Health and sexual matters.		Not at all comfortable (reference category)			...	...	...
		Yes, but only in a closed group	...	...	...	...	...	...
		Yes, publicly	...	...	...	...	...	...
		I don't do this	...	...	...	...	...	...
Amount of social media friends met in person		All of them (reference category)			17.208	4	0.022*	
		Most of them	...	...	...	...	...	...
		About half of them	...	...	...	...	...	...
		A few of them	-0.538	0.246	4.797	1	0.029*	0.584
		None of them	0.337	0.205	2.691	1	...	1.4
Accepting friend requests		Only known contacts (reference category)			...	...	...
		Based on some conditions	...	...	...	...	...	...
		Accept all requests	...	...	...	...	...	...
	Trust on the news read on social media		-0.147	0.051	8.293	1	000**	0.863
Country		Sri Lanka (reference category)			8.293	1	000**	
		India	0	0	95.588	5	000**	0
		Pakistan	0.429	0.199	4.656	1	0.031*	1.536
		Bangladesh	-0.56	0.263	4.54	1	0.033*	0.571
		Cambodia	0.165	0.225	0.536	1	000**	1.179
		Nepal	0.827	0.25	10.955	1	000**	2.287

	Constant		-1.095	0.213	26.53	1	000**	0.335
** Significant relationship at 5% significance level * Significant relationship at 1% significance level ... No significant relationship								

Annex 3

Table 13. Users that are doubtful of the truthfulness of news read on different sources (% of 15-65 population that consume news through the relevant type of media)

	Sri Lanka	India	Pakistan	Bangladesh	Cambodia
Newspapers	58%	50%	29%	62%	38%
Televised news sources	54%	54%	37%	59%	20%
Online news sources including social media	40%	33%	30%	54%	54%

Source: AfterAccess nationally representative surveys, 2019