

Social Media Usage and Physical Inactivity among School Children

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The power of social media is virtually untameable. The advent of social media has shrunk the world to what Marshal McLuhan once termed 'global village'. This paper has examined into the amount of time government and private school students spent on social media vis-à-vis on physical activities. It has attempted to answer the questions: (i) How much time government and private school students spend using different social media applications?, (ii) Is there any association between government and private school students regarding time spent on social media applications?, (iii) Whether they use social media applications primarily to communicate with others, and (iv) how much time, on an average, school students spend on outdoor games after school hours. For the purpose of the study, a self administered survey was conducted among five government and private schools each.

Keywords: Social media, social media applications, physical activities, school children

The reach of social media is widespread and its power virtually untameable. Mediated communication is one of the consequences of technological advancements. Courtesy low cost, user friendly, global connectivity and instant feedback, the social media has eventually become the most preferred mediated communication platform among people. Social media has shrunk the world to, what Marshal McLuhan once termed, a 'global village'. Boundaries have been blurred and the gap between people has been reduced to its minimum. McLuhan foresaw the future outlook of the world due to 'the new electronic interdependence' (McLuhan, 1969). Social media have brought the world together on a platform that can be customised to one's own needs and desires. It has provided its audience with umpteen ways to get hooked to it. Also, the technology is making social media usage and consumption easy for people, especially youngsters. The 21st century generation is tech savvy. Strasburger and Wilson (2002) wrote:

...youth today are confronted with a media environment that is rapidly changing. Technologies are proliferating, merging, and becoming more interactive. And the content featured in these technologies is increasingly graphic, realistic, and commercial in nature. At the same time, media use is at an all-time high (p.8).

It is said that these days children grow up in front of screens. The reference is to the screens of computer, laptop, tablet, mobile phones etc. Majority of them own personal mobile phones. The media ubiquity has left no stone unturned and no human being untouched. Madden, Lenhart, Duggan, Cortesi, and Gasser (2013) in their study, 'Teens and Technology 2013' surveyed 802 teens of 12 to 17 years of age, and their parents. They found that:

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...78 per cent of teens now have a cell phone, and almost half (47 per cent) of those own smart phones. That translates into 37 per cent of all teens who have smart phones, up from just 23 per cent in 2011. One in four teens (23 per cent) have a tablet computer, a level comparable to the general adult population. Nine in ten (93 per cent) teens have a computer or have access to one at home. Seven in ten (71 per cent) teens with home computer access say the laptop or desktop they use most often is one they share with other family members.

The reach and effect is such that it has even altered the lifestyle of school children. The lifestyle has been defined as, "The way in which a person lives" (Oxford dictionary, 2010). The practice of playing with friends in parks and playgrounds after school hours is declining in the wake of media proliferation.

Students these days like to spend more time with media than on physical activities. And their virtual presence is much more than their physical presence among social groups. They have their presence on multiple social media applications, Facebook and WhatsApp being the prominent ones. Usage and consumption of social media is easy and incessant as majority of them do own their personal mobile phones. Livingstone, in her book talks about how 'the home is being transformed into the site of a multimedia culture'. She further discusses about the human dependency on media and communication technology. In the 21st century, the ever-growing penetration of digital media technologies into the homes has altered the childhood (Livingstone, 2002, p.1). A national survey by the Kaiser Family Foundation (2010) found:

With technology allowing nearly 24-hour media access as children and teens go about their daily lives, the amount of time young people spend with entertainment media raised dramatically, especially among minority youth. Today, 8 to 18 year-olds devote an average of 7 hours and 38 minutes using entertainment media across a typical day (more than 53 hours a week). And because they spend so much of their time 'media multitasking' (using more than one medium at a time), they actually manage to pack a total of 10 hours and 45 minutes worth of media content into those 7 hours and 30 minutes.

Physical inactivity leads to sedentary lifestyle. Such lifestyle leads to various illnesses including obesity, overweight, diabetes and cardio-vascular diseases. Spending more time with social media displaces time students could have spent on physical activities. "Sedentary lifestyle, changing food habits and lack of physical activities are making children in metros unfit as compared to their counterparts in non-metros" (EduSports survey, 2012). Not only this, eating habits are also witnessing a change as literature has documented that prolonged exposure to media encourage teenagers (students) to consume fast moving consumer goods.

In their research paper, Andreyeva, Kelly & Harris (2011) mentioned, "We have observed higher consumption of soft drinks and fast food in children with increased exposure to TV advertising for CSDs and fast food" (Andreyeva, Kelly & Harris, 2011, pp. 221-233). Also Robinson, Yardy & Carter stated, "If children's calorie intake from their eating is greater than energy expenditure through heat, growth, resting, metabolic rate and physical activity, they will gain weight" (Robinson, Yardy & Carter, 2012, p. 340).

It is not that social media usage is bringing physical inactivity among school children, but also bringing change in their social and mental behaviours respectively. Here, in the present research paper, the researcher has made an attempt to find out the social media usage among school children and how it is enhancing physical inactivity among them. Also, an attempt has been made to find out that if there is difference in the social media usage among the government and the private school children respectively.

Research Questions

This paper has examined to find answers to the following questions:

RQ1: How much time government and private school children spend using different social media applications?

WhatsApp being the latest fad, students are spending more time using the application. Moreover, the application is primarily for hand-held devices thus, the user prefers to use other social media applications on the same device instead of going to other devices including personal computers.

RQ2: Is there any association between government and private school children regarding time spent on social media applications?

The present study attempted to find out if there was any significant difference in media usage among government and private school children. Media ubiquity has been questioned by scholars time to time as countries like India struggle to fill the wide gap between haves and have-nots. The digital divide has its roots in the gap between the rural and the urban, the elite and the grassroots. Thus, the research attempted to gauge the gap through the present study.

RQ3: Whether school children use social media applications primarily to communicate with others.

Growing popularity of social media platforms and online messengers hints at the shift of preferred communication channels among age groups. The common observation is that those belong to senior age groups prefer different medium of communication as compared to those belong to younger age groups. The present research attempted to find out whether the sample group prefers to use social media applications primarily to communicate with others or there are other uses of such applications that are more common among school students.

RQ4: How much time, on an average, school students spend on outdoor games after school hours.

While studying the relationship between school students' media usage and the time they spent on outdoor games, the researcher attempted to find out whether those spend higher time using media, spend lesser time playing outdoor games as compared to those who spend lesser time with media.

Objectives

- (i) To find out if school children own personal mobile phones.
- (ii) To find out the social media presence and usage among school children.
- (iii) To find out if school children prefer mediated communication.
- (iv) To find out the time school children spend on physical activities.

Hypotheses

- (i) H_1 . Government as well as private school children own personal mobile phones.
- (ii) H_2 . Private school students spend more time with social media.
- (iii) H_3 . Government as well as private school children prefer mediated communication.
- (iv) H_4 . Government school children spend more time on physical activities.

Methodology

Primary data was collected for the current study. The data was collected after conducting a survey among government and private school students between the age group of 13 and 17 years. Self administered questionnaires were used for the data collection. The universe in this case was Chandigarh. The population for this study was students between the age group of 13 and 17 years old student. Using stratified sampling procedure 10 schools were selected. Further, using simple random sampling method, five students each from grade 8 to 12 were selected. The sample size was 250. Statistical Package for the Social Sciences (SPSS) was used to analyse the data.

Operational Definitions

Social media: A digital platform that connects people across borders virtually.

Social networking applications/sites: Digital networks like Facebook, WhatsApp and Twitter that offers social networking as their primary feature.

Social media presence: Having an account on social networking sites.

Social media usage: Using different features of social networking sites/applications.

Data Interpretation and Analysis

Table 1. Mobile phone ownership status

		Government N (per cent)	Private N (per cent)	Chi-square value	p value
Own a mobile phone	Yes	56 (44.8)	96 (76.8)	26.9	0.00**
	No	69 (55.2)	29 (23.2)		

**p<0.01

As many as 152 school students admitted that they owned mobile phone whereas 98 said they did not. Moreover, the results were highly statistically significant. The data proved that there was a significant association among government and private school students when they were asked whether they owned a mobile phone or not. It was found that 44.8 per cent government school students affirmed of having personal mobile phones while 55.2 per cent said they did not. However, 76.8 per cent school students said that they did own mobile phones and 23.2 per cent did not.

Hypothesis Testing

It was assumed that government as well as private school children own mobile phones (H_1). The data presented above partially supported the first hypothesis. As 55.2 per cent government school students and 23.2 per cent private school students did not own mobile phones.

Table 2. Presence and status of social media usage

		Government N (%)	Private N (%)	Chi-square value	p value
Facebook account	Yes	55.2	83.2	22.9	0.00**
	No	44.8	16.8		
Average time spent on Facebook	Do not use	32.8	16.8	56.9	0.00**
	1 to 2 hours	36.8	7.2		
	2 to 3 hours	5.6	21.6		
	3-4 hours	15.2	33.6		
	More than 4 hours	9.6	20.8		
Average time spent on Twitter	Do not use	98.4	84.0	15.1	0.00**
	1 to 2 hours	1.6	13.6		
	2 to 3 hours	0.0	1.6		
	3-4 hours	0.0	0.0		
	More than 4 hours	0.0	0.0		
Average time spent on WhatsApp	Do not use	44.8	28.0	36.7	0.00**
	1 to 2 hours	27.2	18.0		
	2 to 3 hours	7.2	14.4		
	3-4 hours	14.4	21.6		
	More than 4 hours	6.4	28.0		

**p<0.01

The data showcased (Table 2) proved that findings were highly statistically significant. In this case too, there was a significant association between government and private school students regarding their presence on social media and its usage. As many as 55.2 per cent government school students said they did have Facebook account while 44.8 per cent students did not have. In case of private school students 83.2 per cent had Facebook account.

Regarding the time spent on Facebook, majority of government school students spent 1 to 2 hours per day and large number of private school students reported to spend 3 to 4 hours per day with Facebook (Table 2).

Interestingly, it was found that Twitter, as social media application, was not found popular among school students. As many as 98.4 per cent government school students and 84 per cent private school children said that they did not use Twitter.

For WhatsApp usage, 14.4 per cent government school students said they spent 3 to 4 hours per day with WhatsApp but 28 per cent private school students said they spent more than 4 hours with WhatsApp.

It was assumed that private school students spend more time with social media (H_2). The data supported the hypothesis. It was found that private school students spent 3 to 4 hours with Facebook and more than 4 hours on WhatsApp on daily basis.

Table 3. Communication preferences

		Government N (%)	Private N (%)	Chi-square value	p value
Do you use mobile to communicate with others over having face-to-face interaction	Yes	86(68.8)	123(98.4)	39.9	0.00**
	No	39(31.2)	2 (1.6)		
Media applications used to communicate with others	Email	5(4.0)	6(4.8)	2.25	0.32
	Facebook	58(46.4)	99(79.2)		
	Twitter	1(0.8)	2(1.6)		
	Text message	74(59.2)	123(98.4)		
	WhatsApp	45(36.0)	90(72.0)		

**p<0.01

As many as 219 school students agreed to the fact that they did use mobile phone to communicate with others and 41 students said they did not use mobile phone for communication purposes. One of the significant findings from the above table was that there was significant association between government school students and private school students when they were asked if they used mobile phone for communication purpose. 68.8 per cent government school students mentioned that they did use mobile phone for communication and only 31.2 per cent said they did not. But 98.4 per cent private school students admitted that they did use mobile phone for communicating with others and merely 1.6 per cent said they did not use it for communication. Communication through text messages found to be high among the students.

H_3 : It was assumed that both government and private school children prefer mediated communication. The data tabulated above partially supported this hypothesis. The findings read that majority of government school students mentioned that they did use mobile phone for communication and only 31.2 per cent said they did not. Whilst huge number of private school students admitted that they did use mobile phone for communicating with others and just 1.6 per cent said they did not use it for communication.

Table 4. Time spent on physical activities by school students

		Government N (%)	Private N (%)	Chi-square value	p value
Do you play outdoor game with your friend	Yes	67 (53.6)	42(33.6)	11.9	0.00**
	No	59(46.6)	83(66.4)		
Do you play outdoor game everyday	Yes	26(21.0)	18(14.4)	1.85	0.17
	No	98(79.0)	107(85.6)		
Average time spent playing games in a day	Do not play	40(32.3)	82(65.6)	28.5	0.00**
	One hour	41(33.1)	22(17.6)		
	Two hours	31(25.0)	17(13.6)		
	Three hours	11(8.9)	4(3.2)		
	More than three hours	1(0.8)	0(0.0)		

**p<0.01

An overview of the data notifies that as many as 142 respondents said that they did not play outdoor games at all and 109 said that they did play outdoor games. When the students were asked if they played every day a large number, 205 respondents, said they did not play every day. Those who preferred playing outdoor games they played between 1 and 2 hour hours per day. The data provided the researcher with a very intriguing observation regarding the presences of sedentary lifestyle among the school students as majority of them did not prefer to involve themselves in physical activities.

It was inferred from the data presented above that there was significant association between government school students and private school students when they were asked whether they play outdoor games with their friends. The data had shown that majority of government school students confirmed that they play outdoor games while majority of private school students said that they did not play outdoor games (Table 4).

Secondly, the students were asked if they played outdoor games every day, majority of them said they did not play every day. The statistical tests proved that the results were not statistically significant. As many as 79 per cent government school students and 85 per cent private school students mentioned that they did not play every day.

H₄: It was assumed that government school children spend more time on physical activities. The data supported the hypothesis as it was observed through the collected data that majority of government school students played outdoor games whereas majority of private school students reported that they did not play outdoor games.

Discussion

The primary objective of the research paper was to analyse the social media usage and physical inactivity among school children. Social media presence in the lives of school children is as true as any other fact. School administrations at government as well as private, were kind enough to grant permission to the researcher for the survey. Response rate was excellent as self administered questionnaires, as a technique, was employed for the purpose of data collection. Researcher found answers to all the research questions formulated for the study. It was found that government as well as private school students found spending considerable time with social media, though time span differs (RQ1). It was found that private school children spent more time with social media as compared to government school children. There was a significant association between government and private school children when it came to time spent on various social media applications/sites (RQ2). Moreover, a large number of sample units preferred mediated communication with others

and they did use various social media applications for the same. Communication through text messages, WhatsApp and Facebook found high among the sample units (RQ3). Physical inactivity was observed high among the students. Further, it was found higher among the private school children as compared to government school children. Majority of students said they did not play outdoor games every day (RQ4).

Conclusion

Social Media buck would not stop anywhere and nobody seems to have any concrete idea about the future of this phenomenon. It has become an integral part of the lives of a large majority which is becoming even larger by leaps and bounds. However, it is as true that social media has both positive and negative effects. The user must be media literate to decide the extent of its usage. Lack of media pedagogy in the curriculum of schools and being the most vulnerable age group, children are falling prey to it. Technology has provided youth all the opportunities to be with media 24X7. In the contemporary digitally rich and connected world, mobile phones offer multiple applications with a potential to shrink the real world of users up to a great extent. Mobile phones offer youth with numerous options including internet facility and social media applications like Facebook, WhatsApp, Twitter and many more. This virtual world has not only altered the very essence of human communication, but as a result has severely affected behavioural outcomes among students. Virtual world has a tremendous power to provide them with an option to customise their own world. A world where they conceal their identities, stay in isolation, prefer to communicate online, and have like-minded people to applaud their gestures and behaviours. Moreover, heavy usage is leading to physical inactivity which further contributing to sedentary lifestyle- conducive for various illnesses. This is high time we introduce media literacy pedagogy in curriculums of educational institutes where school children can be made prudent enough to use social media.

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