

# University students' preference regarding social media content, internet usage and online friendship patterns

University  
students'  
preference

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## Abstract

**Purpose** – This study aimed to find out the web content accessed by university students and to compare the level of interaction with real-life friends and online friends.

**Design/methodology/approach** – In this study, the quantitative research design used, and the researcher collected data through the survey method. The population comprises all undergraduate students at the University of the Punjab, Lahore. The sample of 320 students, age ranges from 18 to 22 years from eight selected departments, collected through a simple random sampling technique and after extraction 284 questionnaires evaluated by using Statistical Package for Social Sciences (SPSS).

**Findings** – The findings of the study showed that students preferred activities on the Internet is to access social networking sites. Additionally, the mobile phone is the most commonly used device among university students to access the Internet. Furthermore, students mostly used Facebook to keep in touch with their old friends and talk on different topics more easily with their online friends as compared to real-life friends. The study also shows that the results of both the hypothesis are significant; therefore, no difference exists regarding time spent on the Internet in real-life friendship patterns and online friendship patterns.

**Originality/value** – The research was used to find out the difference between the online friendship and real-life friendship patterns of the two groups who use the Internet for less time and who spend more time on the Internet among the university students.

**Keywords** Internet, Social networking sites, Communication patterns, University students

**Paper type** Research paper

## Introduction

The present study was an attempt to evaluate the use of the Internet and changing communication patterns because of social media among university students. As in today's world of information technology, university students spend most of their time on the Internet, it has become simpler to gather information about any individual or topic. Social media has changed the foundation of how university students communicate. Social media has created a new social order in Pakistani society; it has strengthened the online friendship but weakened the inter-personal relations. The Internet and social media have also redefined the value systems and cultural orientation more dangerously in Pakistani society. For the advancement of the Internet, social changes especially the value changes are non-



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ignorable. Therefore, with the growing number of Internet users in Pakistan and its ever-increasing popularity among the youth, in particular, it is prime time that the researcher shed light on this matter and provided the upcoming researchers with better ideas.

The role and effect of technology in both personal and professional lives developed regularly. Seeing how individuals shape technology and how technology shapes individuals are important for those people and organizations who need to use the technologies in their working and individual lives (Professor Andy Lane, 2006). We apply technology in nearly all that we do in our everyday lives; we use technology for communication, learning and so much more (Ramey, 2013).

According to Ayub *et al.* (2014) advances in Information and Communication Technologies (ICTs) have enabled the Internet to serve as a platform not merely to seek information, yet additionally, to exchange thoughts and information with different users, and gain expert opinions using email, video chatting and other avenues. Technology has made it possible for us to access an enormous amount of information on the Internet.

According to Ruzgar (2005), the Internet is a global system of connections between computers that allows almost instant access to and dissemination of information. According to Teong and Ang (2016) the Internet has become the most fundamental part of daily life for most young adults and they mainly use it for education, information searching, entertainment, mail and social interaction purposes. Barnett and Benefield (2017) noted that the Internet has become accessible globally and has driven the world-wide integration of social, political and financial aspects.

As Internet is the most powerful source to connect people and social media is gaining its momentum at an unimaginable speed which shows that we, as social beings, need consistent association with one another and with the outside world. With the progress of the Internet, social networking sites (SNS) that is Facebook, Twitter, WhatsApp and Skype are increasingly becoming popular and have become the most up-to-date tools for connecting people across the world. Social media tools such as Facebook, Wikipedia, YouTube, WhatsApp, LinkedIn, blogging and Twitter have become universal because students use them constantly (Liu, 2010).

Bauer and Schedl (2019) argue that each day a large number of individuals overall send, get post, view and like a lot of messages through online SNSs. Students mostly use social media to discuss their feelings. All around the world, a huge number of individuals particularly youth have signed up to at least one SNS to develop their social relationships and to maintain the existing relations (Ukomadu, 2018).

According to a Global Digital Report, Pakistan's number of active social media users grew by 5.7% up to January 2019 (Farooq, 2019). The growth and use of SNSs in Pakistan have changed the communication and interaction patterns, particularly among youth. In the social world, youth is living a robotic life as opposed to idealistic life (Bala, 2014). Social media supremacy in Pakistani youth may lead to the weakening of interpersonal communication. Standlee (2018) observed that youth gather information through social media sites and use this information to reshape the perceptions about offline friends.

According to the Saudi Grand Mufti: "Social media site; Twitter is the source of all evil" (cleric, 2014). Internet was a source of credible information, but now because of social media, it has become a source of lies and falsehood.

A research study conducted across 15 countries identified students in higher education as being responsible for increasing the use of mobile computing devices, such as tablets and smartphones, with 67% attributing the technologies as being a factor in their academic success (Walker *et al.*, 2013). As showed by AC Nielson's The Social Media Report 2012 surveys, "More individuals are using advanced mobile phones and tablets to get to the social media world and with greater availability, individuals have more opportunities to use social media" (AC Nielson, 2012).

According to Giddens (1999), there is a global revolution going on in how we think of ourselves and how we form ties and connections with others. Helliwell and Huang (2013) had contrasted real life and online friendship networks as sources of satisfaction. Carter (2005) has outlined some issues involved in the development of human relationships in cyberspace. The study investigated how geographically distant individuals are coming together on the Internet to occupy new sorts of social spaces or virtual groups. Individuals “live in” and “build” these additional spaces to propose that the Internet is anything but placeless cyberspace distinct from the real world. She outlines the broader context of the Internet and society that how individuals build and maintain relationships in cyberspace.

Lu *et al.* (2017) argue that with the popularity of social media, online social networks have rapidly developed and revolutionized the way people connect. People are using the Internet not only to maintain the existing offline friends but to create new online friends. These friendships originated online may even lead to face-to-face communications later in the physical world that is offline friendship.

Social media has prevailed so much in the lives of university students that their communication patterns have changed. It has become an important tool for self-expression and self-presentation. With the advancement in technological devices, mobile phones have made expedient communication desirable and real-life friendships are becoming redundant. Moreover, the presence of smartphones is catalyzing the phenomenon of addiction for Internet and social networking among university students.

### *Objectives*

- (1) To find out the web content accessed by university students.
- (2) The extent to which university students use the Internet.
- (3) To compare the level of interaction with real friends and online friends.

### *Research hypothesis.*

- H1. There is a significant mean difference in the online friendship patterns of the two groups who use the Internet for less time and who spend more time on the Internet.
- H2. There is a significant mean difference in the real-life friendship patterns of the two groups who use the Internet for less time and who spend more time on the Internet.

### **Methodology**

The present research was a quantitative study and survey research design was used to collect data from students of the University of the Punjab, Lahore. A self-designed questionnaire comprising three sections has used. The structure of the questionnaire was close-ended. The population comprises all undergraduate students of the University of the Punjab, Lahore. A sample of 320 undergraduate students, age ranges from 18 to 22 years, of the second and fourth semester of BS Honors selected from eight departments of the University of the Punjab, Lahore. The researcher adopted the simple random sampling technique, which is a probability sampling technique for the study because it results in representative samples and eliminates bias from the selection method.

### **Data analysis and results**

To collect the requisite data, a self-designed questionnaire comprising three sections has used. A total of 320 respondents included in the study, but after extraction 284 questionnaires

evaluated and the researcher analyzed data using Statistical Package for Social Sciences (SPSS) software. To describe, categorize and summarize the data, descriptive statistics calculated and the total of each is not equal to 284 respondents because of missing data. To investigate the hypothesis, the researcher used inferential statistics. Further, independent sample *t*-test applied to see the difference between the online friendship patterns and real-life friendship patterns.

*Demographic information*

The survey collected student demographic information regarding their gender, age, department, residence and language to find out if these variables would affect student perceptions and attitudes toward Internet usage and friendship patterns. In terms of age, the mean age of the respondents was 19.3, and respondent's lies in the age group of 18–22 years. Furthermore, the majority of the students who are 89.1% were studying in the 2nd semester of their study and 10.9% were studying in the 4th semester. Out of the total respondents, 41.9% were males and 58.1% were females. Furthermore, it identified that majority of the respondents who are 54.6% had their own houses while 45.4% lived in rented houses or hostels. Most of the participants who are 13.7% of students included in the study were from the Institute of Agricultural Sciences. 11.6% students were from College of Earth and Environmental Sciences (CEES), 13.4% were from Department of Space Science, 12% were from Institute of Geology and Department of Social Work respectively, 12.7% were from Institute of Communication Studies, 13% were from Institute of Social and Cultural Studies (ISCS) and 11.6% students were from Institute of Chemical Engineering and Emerging Technologies. Furthermore, the most common and widely spoken primary language of respondents is Urdu and the second common spoken language is Punjabi, while few respondents also spoke English and other languages.

*Internet surfing*

Section 2 includes questions related to the web content accessed by university students, the purpose of using the Internet and the purpose of Facebook usage. Percentage analysis was used to analyze and interpret the data.

According to the table, most of the students who are 35.9% used the Internet over 5 h per day. 33.5% spend 3–5 h per day, 29.6% spend 1–3 h per day while only 1.1% spend less than one hour per day and the table shows that all the students spend time on the Internet but the frequency of their Internet usage daily is different. The table represents that students mostly use the Internet over 5 h per day, which is an increasing trend in spending time on the Internet (see Table 1).

The above table shows the frequency distribution of device owners for using the Internet which shows that most of the students who are 89.1% have their device (phone and computer) for using the Internet while 10.9% have not (see Table 2).

The above table explains about multiple categories of accessing the Internet through the device and the frequency of accessing it. The first category of computer explains that 65

**Table 1.**  
Percentage  
distribution of  
respondents about  
hours spend on internet  
surfing

Categories	Frequency	Percentage
Less than one hour	3	1.1
1–3 h	84	29.6
3–5 h	95	33.5
More than 5 h	102	35.9
Total	284	100

respondents who are 22.9% of the total population are the most responses who access the Internet through a computer, whereas 104 responses that are 36.6% of the total population explains that they access Internet sometimes through the computer, the remaining 99 responses that are 34.9% of the total population are not at all accessing Internet through the computer.

It explains the second category laptop that 28.2% of the most responses who access the Internet through the laptop, whereas 47.9% explains that they access the Internet sometimes through the laptop, the remaining 20.4% are not at all accessing Internet through the laptop.

It explains the third category mobile phone that 56.7% of the most responses who access the Internet through mobile phones, whereas 30.6% explains that they access the Internet sometimes through mobile phone, the remaining which are only 9.5% of the total population is not at all accessing Internet through mobile phone.

It explains the final category tablet that 41.9% of the most responses who access the Internet through the tablet, whereas 21.1% explain that they access the Internet sometimes through the tablet, the remaining 34.2% are not at all accessing Internet through the tablet (see Table 3).

The table explains multiple categories of purpose levels of respondents for using the Internet. The first category of time pass entertainment explains that 134 respondents who are 47.2% of the total population are the most responses who use the Internet for time pass entertainment mostly, whereas 102 responses that are 35.9% of the total population explains that they use the Internet for time pass entertainment sometimes, the remaining 40 responses that are 14.1% of the total population are not at all use the Internet for time pass entertainment.

The second category relationship development explains that 26.4% of the most responses that use the Internet for relationship development mostly, whereas 37.3% explain that they use the Internet for relationship development sometimes, the remaining 33.5% are not at all using the Internet for relationship development.

The third category trend following explains that 31.3% of the most responses that use the Internet for trend following mostly, whereas 34.9% explain that they use the Internet for trend following sometimes, the remaining 31% are not at all using the Internet for trend following.

The next category searching for information about the study explains that 50.4% of the most responses that search information by using the Internet for study purpose,

**Table 2.**  
Percentage  
distribution of  
respondents about  
device own for using  
the Internet

Categories	Frequency	Percentage
Yes	253	89.1
No	31	10.9
<i>Total</i>	<i>284</i>	<i>100</i>

**Table 3.**  
Percentage  
distribution of  
respondents about  
accessing the Internet  
through device

Categories	Most of the time	Sometimes	Not at all	Total
Computer	65 22.9%	104 36.6%	99 34.9%	268 94.4%
Laptop	80 28.2%	136 47.9%	58 20.4%	274 96.5%
Mobile phone	161 56.7%	87 30.6%	27 9.5%	275 96.8%
Tablet	119 41.9%	60 21.1%	97 34.2%	276 97.25%

whereas 40.8% explain that they use the Internet sometimes for searching information for study purpose, the remaining which are only 6% are not at all using Internet for study purpose.

The next category watching the movie explains that 24.3% of the most responses that use the Internet for watching the movie, whereas 53.9% explain that they use the Internet sometimes for watching the movie, the remaining 18.7% are not at all using Internet for watching the movie.

The final category chatting with friends explains that 41.9% of the most responses that use the Internet for chatting with friends, whereas 41.5% explain that they use the Internet sometimes for chatting with friends, the remaining 13% are not at all using the Internet for chatting with friends (see [Table 4](#)).

The table explains multiple categories of doing activities online. The first category of social networking (Facebook App and Twitter App, etc.) explains that 126 respondents that are 44.4% of the total population are the most responses who like doing social networking (Facebook and Twitter, etc.) mostly, whereas 83 responses that are 29.2% of the total population explain that they like doing social networking (Facebook and Twitter, etc.) sometimes, the remaining 61 responses that are 21.5% of the total population are not at all like to do social networking (Facebook and Twitter, etc.).

The second category explains web browsing that 41.5% of the most responses that like doing web browsing mostly, whereas 41.9% explain that they like doing web browsing sometimes, the remaining 14.1% are not at all like to web browsing.

The third category explains instant messenger (WhatsApp and Facebook, etc.) that 50% of the most responses that like doing instant messenger (WhatsApp and Facebook, etc.) mostly, whereas 35.9% explain that they like doing instant messenger (WhatsApp and Facebook, etc.) sometimes, the remaining 11.3% are not at all like to do instant messenger (WhatsApp and Facebook, etc.).

The next category of music that 50% of the most responses who like listening to music mostly, whereas 37.7% explains that they like listening to music sometimes, the remaining which are only 9.9% are not at all like to listen to music.

The next category of movies that 37% of the most responses who like watching movies mostly, whereas 42.6% explains that they like watching movies sometimes, the remaining 17.3% are not at all like to watch movies.

The next category of Youtube that 47.5% of the most responses who like doing Youtube mostly, whereas 38.7% explains that they like doing Youtube sometimes, the remaining 11.3% are not at all like doing Youtube.

**Table 4.**  
Percentage  
distribution of  
respondents about the  
purpose of using the  
Internet

Categories	Most of the time	Sometimes	Not at all	Total
Time pass entertainment	134 47.2%	102 35.9%	40 14.1%	276 97.2%
Relationship development	75 26.4%	106 37.3%	95 33.5%	276 97.2%
Trend following	89 31.3%	99 34.9%	88 31%	276 97.2%
Searching for information about the study	143 50.4%	116 40.8%	17 6%	276 97.2%
Watching movie	69 24.3%	153 53.9%	53 18.7%	275 96.8%
Chatting with friends	119 41.9%	118 41.5%	37 13%	274 96.5%

The final category academic purpose explains that 46.5% of the most responses who like doing academic purpose activities online mostly, whereas 40.5% explains that they like doing academic purpose activities online sometimes, the remaining 10.6% are not at all like doing academic purpose activities online (see [Table 5](#)).

The table explains multiple categories of purpose level of respondents for using Facebook. The first category of Facebook users to know about online friend's activity explains that 109 respondents who are 38.4% of the total population are the most responses who use Facebook to know about online friend's activity, whereas 77 responses that are 27.1% of the total population explains that they sometimes use Facebook to know about online friend's activity, the remaining 88 responses that are 31% of the total population are not at all using Facebook to know about online friend's activity.

It explains the second category of Facebook users to know about online friend's likes and dislikes that 38.7% of the most responses who use Facebook to know about online friend's likes and dislikes, whereas 26.1% explain that they sometimes use Facebook to know about online friend's likes and dislikes, the remaining 31.3% are not at all using Facebook to know about online friend's likes and dislikes.

It explains the third category of Facebook users to know about online friend's views that 39.8% of the most responses who use Facebook to know about online friend's views, whereas 28.2% explain that they sometimes use Facebook to know about online friend's views, the remaining 28.5% are not at all using Facebook to know about online friend's views.

It explains the next category of Facebook users to know about online friend's secrets that 28.9% of the most responses who use Facebook to know about online friend's secrets, whereas 28.5% explain that they sometimes use Facebook to know about online friend's secrets, the remaining 39.1% are not at all using Facebook to know about online friend's secrets.

It explains the next category of Facebook users to keep in touch with old friends that 47.9% of the most responses who use Facebook to keep in touch with old friends, whereas 25.4% explain that they sometimes use Facebook to keep in touch with old friends, the remaining 22.5% are not at all using Facebook to keep in touch with old friends.

It explains the next category of Facebook users to learn more about other people in classes that 42.3% of the most responses who use Facebook to learn more about other people in their classes, whereas 25.7% explain that they sometimes use Facebook to learn more about other people in their classes, the remaining 28.9% are not at all using Facebook to learn more about other people in their classes.

Categories	Most of the time	Sometimes	Not at all	Total
Social networking (Facebook App and Twitter App, etc.)	126 44.4%	83 29.2%	61 21.5%	270 95.1%
Web browsing	118 41.5%	119 41.9%	40 14.1%	277 97.5%
Instant messenger (WhatsApp and Facebook, etc.)	142 50%	102 35.9%	32 11.3%	276 97.2%
Music	142 50%	107 37.7%	28 9.9%	277 97.5%
Movies	105 37%	121 42.6%	49 17.3%	275 96.8%
Youtube	135 47.5%	110 38.7%	32 11.3%	277 97.5%
Academic purpose	132 46.5%	115 40.5%	30 10.6%	277 97.5%

**Table 5.**  
Percentage  
distribution of  
respondents about  
doing activities online



The final category of Facebook users to know about online friend's inner feelings explains that 34.5% of the most responses who use Facebook to know about online friend's inner feelings, whereas 22.9% explain that they sometimes use Facebook to know about online friend's inner feelings, the remaining 38.7% are not at all using Facebook to know about online friend's inner feelings (see Table 6).

*Real life vs online friendship*

Section 3 includes questions related to interaction patterns with online and real-life friends. Table 7 represents the mean score of each dimension of online friendship patterns and real-life friendship patterns based on a three-point Likert scale. Mean values of the elements of online friendship patterns range from ( $M = 1.87$ ,  $SD = 0.830$ ) I talk on different topics more

**Table 6.**  
Percentage  
distribution of  
respondents about the  
purpose of using  
facebook

Categories	Most of the time	Sometimes	Not at all	Total
I use Facebook to know about my online friend's activity	109 38.4%	77 27.1%	88 31%	274 96.5%
I use Facebook to know about my online friend's likes and dislikes	110 38.7%	74 26.1%	89 31.3%	273 96.1%
I use Facebook to know about my online friend's views	113 39.8%	80 28.2%	81 28.5%	274 96.5%
I use Facebook to know about my online friend's secrets	82 28.9%	81 28.5%	111 39.1%	274 96.5%
I use Facebook to keep in touch with my old friends	136 47.9%	72 25.4%	64 22.5%	272 95.8%
I use Facebook to learn more about other people in my classes	120 42.3%	73 25.7%	82 28.9%	275 96.8%
I use Facebook to know about my online friend's inner feelings	98 34.5%	65 22.9%	110 38.7%	273 96.1%

**Table 7.**  
Descriptive statistics of  
online friendship  
patterns and real-life  
friendship patterns

Indicator	Mean values	SD
<i>Online friendship patterns</i>		
I talk on different topics more easily with my online friends	1.87	0.830
I talk more easily with my online friends about being in love	1.58	0.730
I have more conflicts with my online friends	2.03	0.790
I feel more connected with my online friends	1.99	0.830
I plan to go out more with my online friends	2.05	0.828
I depend on my online friends for help	2.08	0.826
I depend on my online friends for advice	2.06	0.821
I prefer my online friends over my real-life friends	2.12	0.841
<i>Real-Life Friendship Patterns</i>		
I talk on different topics more easily with my real-life friends	1.69	2.001
I talk more easily with my real-life friends about being in love	1.90	0.825
I have more conflicts with my real-life friends	1.95	0.803
I feel more connected with my real-life friends	1.73	0.798
I plan to go out more with my real-life friends	1.66	0.788
I depend on my real-life friends for help	1.73	0.832
I depend on my real-life friends for advice	1.74	0.807
I prefer my real-life friends over online friends	1.86	0.844



easily with my online friends, ( $M = 1.58$ ,  $SD = 0.730$ ) I talk more easily with my online friends about being in love ( $M = 2.03$ ,  $SD = 0.790$ ), I have more conflicts with my online friends. Overall results in this category show that majority of the students prefer their online friends ( $M = 2.12$ ,  $SD = 0.841$ ) over real-life friends ( $M = 1.58$ ,  $SD = 0.730$ ).

Results regarding real-life friendship patterns show that majority of the students have more conflicts with their real-life friends ( $M = 1.95$ ,  $SD = 0.803$ ). Students talk on different topics more easily with their online friends ( $M = 1.87$ ,  $SD = 0.830$ ) as compared to real-life friends ( $M = 1.69$ ,  $SD = 2.001$ ).

**Hypothesis testing.** The hypothesis tested by applying an independent sample *t*-test in which the students' spent time on the Internet taken as an independent variable and online friendship and real-life friendship taken as the dependent variable. Table 8 shows that a significant difference exists between less time to spend on the Internet and more time to spend on the Internet regarding online friendship patterns. Less time to spend on the Internet ( $M = 20.14$ ,  $SD = 2.21$ ) significantly differs from more time to spend on the Internet ( $M = 11.61$ ,  $SD = 3.11$ ).

The second hypothesis was regarding the real-life friendship patterns of the two groups who use the Internet for less time and who spend more time on the Internet. The result shows a significant difference between the two groups.

By comparing real-life friendship patterns with online friendship patterns as both the results of the hypothesis are significant, then no difference exists regarding time spent on the Internet in real-life friendship patterns and online friendship patterns.

## Discussion

There are several studies in the literature investigating the use of the Internet and social media, but the focus of this study is to evaluate the use of the Internet, social media and compare interactions level among the students of the University of the Punjab, Lahore. The three sections presented in the data analysis are demographic information, Internet surfing and online vs real-life friendship patterns. Demographically, the number of female respondents was 58.1% of the total population, while male respondents were 41.9% of the total population. In terms of age, most of the respondents fall at 19 years. Moreover, the majority of the respondents speak Urdu as a primary language.

To understand the role of Internet and SNSs in university students' lives, we analyzed basic trends in Internet usage and activities performed on the Internet. Data from this study reveal several interesting findings on student's access to the Internet and their activities both on the Internet and on social media. The results showed that students use the mobile phone to access the Internet which shows that mobile phone is the most commonly used device to access Internet among university students and most of the respondents have their device to access the Internet.

The results also showed that the Internet has used extensively by undergraduate students and their preferred activities on the Internet were to access social networking (WhatsApp and Facebook), online chatting, music, movies, Youtube and searching for information about the

Variable	Time dimension	<i>M</i>	<i>SD</i>	<i>t</i>	Sig
Online friendship	Less time	20.14	2.21	26.514	0.000
	More time	11.61	3.11		
Real-life friendship	Less time	19.81	4.69	26.35	0.000
	More time	8.95	1.57		

**Note(s):**  $p < 0.05$

**Table 8.**  
Independent sample  
*t*-test

study. Furthermore, students mostly used Facebook to keep in touch with their old friends rather than to know about a friend's inner feelings or secrets, which shows that Facebook is an important venue for interaction and conversation among friends.

This study also compares the level of interaction with online and real-life friends. The results of the independent sample *t*-test showed that respondents are consistent with the study of Lu *et al.* (2017) conducted on interaction patterns on the Internet. The study shows that social media is changing the foundation of the ways of relationships among university students. The study also shows that the Internet and social media are the most common source of entertainment among university students in Pakistan.

### Conclusion

Based on the findings of this study, the researcher can conclude that university students are engaged in using the Internet and social media sites which show that they are comfortable in using communication technology. Using the Internet, social media sites have shown rapid growth during recent years. Social media has prevailed so much in the lives of university students that their communication patterns have changed. It is strengthening the social relations and weakening the real-life relations. Additionally, the mobile phone is the most commonly used device among university students to access the Internet.

Internet use as one of the apparent effects of the modern world is an important tool for training the new generation. The Internet is everywhere, at home, at school and even in shopping centers in public places like airports, hospitals, etc. Undoubtedly, the Internet has mainly changed people's lives, a change compared with the change that telephone inventions brought about in the early twentieth century and television in the 1950s. The present study found that university students have accepted the Internet as a simple way of accessing the relevant information and one of the most common means for entertainment and research at the same time.

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