

The Modus Operandi of Internet Dependency and Its Ethical Usage

Media Watch

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Abstract

Dependency is often perceived as having a negative connotation. Most internet users may be reluctant to publicly admit whether they are internet-dependent. In Mizoram, the twenty-third state and one of the smallest in India, mobile internet connections outnumber its population. Thus, using a mixed-methods approach, this study examines the level of internet dependence and ethical internet use patterns among Mizo internet users. With Media Dependency Theory as its theoretical framework, the study employed survey questionnaires and semi-structured interviews. The 600-sample size comprises digital natives and digital immigrants selected from three districts using a purposive sampling technique. Village council office bearers and non-governmental organisations leaders from the selected regions, as well as the Junior Cyber Forensic Consultant from the Cyber Crime Department at the Mizoram Police Headquarters, participated in semi-structured interviews. After determining that the data were normally distributed ($p = .071$) using a Shapiro–Wilk test, an analysis of variance test was performed to examine differences among the categories of the proposed Diurnal Internet Dependency Scale. The difference in scores between digital immigrants and digital natives was also measured using a t -test.

Keywords

Cybercrime, digital immigrants, digital natives, internet dependency, internet ethics, Mizoram

Introduction

DeFleur and Ball-Rokeach foresaw in 1989 that ‘Mass communication technologies of the future will be based upon personal microcomputers owned and operated by ordinary people who are not computer scientists’, and this has become a reality in just a few decades. People’s lifestyles and mindsets have been greatly

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influenced by the internet, thereby affecting their social participation (Nawi et al., 2020). In the cyberworld, due to their inherent sociable nature, children are most vulnerable to online attacks, followed by women, making attackers see them as targets (Hussain & Hnamte, 2021). The more people depend on the internet, the greater the risk of falling victim to cyber fraud. The need to examine factors that influence internet use or media selection arises from the multiplicity and intensity of online activities (Patwardhan & Yang, 2003). Internet dependency is a relatively new phenomenon in Mizoram, a hilly region in the north-eastern part of India. Therefore, this study will examine the level of internet dependency among internet users in Mizoram, while adhering to ethical practices. Using the Diurnal Internet Dependency Scale (DIDS), the respondents evaluate their daily internet use patterns. The most commonly used scales of internet use include the Internet Addiction Test (IAT) by Kimberly Young (1998) and Chen's Internet Addiction Scale (2003). Still, they do not meet the requirements of this study, as the focus is on dependency rather than addiction. Therefore, a new scale, the DIDS, has been developed to examine the daily internet dependency of Mizo internet users. As this study aims to examine internet dependency, it requires a proper scale or instrument for measurement. The DIDS scale is constructed using a 5-point Likert scale.

Review of Literature

Gorain et al. (2022) opined that there is a tendency to withdraw from social participation as internet use increasingly invades people's everyday lives, and their findings show a positive correlation between internet dependency and social isolation. According to Mahanti et al. (2016), internet use patterns vary by gender and academic stream, but there is no difference in usage across regions. Sari et al. (2020) also emphasised the importance of preparing sensitive citizens to engage positively with the digital world, as their study found that students are highly vulnerable to unethical digital practices. They suggested civic learning through education that includes digital, data and humanistic literacy to address this vulnerability.

Cuan-Baltazar et al. (2020) also argued that, since the internet is an unregulated space, the quality of information found remains questionable, as evidenced by World Health Organization (WHO) Director-General Tedros Adhanom Ghebreyesus in 2020, who said that fighting a pandemic is also like fighting an infodemic. Frequent internet misuse can also lead to cybercrime in the long run. According to Paul and Indu (2022), there were 2,139 cybercrime cases in North-East India; the majority (1,771) were registered in Assam, 182 in Meghalaya, fewer than 40 in Mizoram and Manipur, while Nagaland, Sikkim and Tripura each had fewer than 10 cases.

Hussain and Hnamte (2021) also reported that cybercrime cases increased in Mizoram from 2010 to 2014 but declined thereafter, attributing the decline to awareness campaigns conducted in various educational institutions and to the government of India's Digital India initiatives. They mentioned that cybercrimes

are often left unreported due to fear of defamation and the lack of equipment in the cybercrime department. They also suggested that the school curriculum should incorporate cybersecurity topics and that the Cybercrime Department of Mizoram should be better equipped to tackle existing and emerging cybercrime.

Since internet dependence can also impose constraints in the long run despite its conveniences, this study examines the level of internet dependence among internet users in Mizoram. It documents the ethical issues raised by that dependence. Some of the existing literature hinted at internet dependency in their work, but are often inclined towards internet addiction in their actual content. Even though these two terminologies are closely related, this study focuses solely on internet dependency and not on addiction.

Methodology

A mixed-methods approach is employed in this study, in which a survey questionnaire is distributed to 600 respondents in selected regions of Mizoram. Semi-structured interviews were conducted with community leaders, including the Office Bearers of the Village Council, non-governmental organisations (NGOs) and the Junior Cyber Forensic Consultant. The DIDS, consisting of 30 questions rated on a 5-point Likert scale, is administered to assess internet dependency. Purposive sampling is employed because the study focuses on two specific groups: digital immigrants and digital natives. As the internet entered Mizoram in the late 1990s and public access began in the 2000s (Lalfakzuala, 2008), this study proposes a context-specific modification of Mark Prensky's definitions of digital natives and digital immigrants. People born before 2000 are considered digital immigrants, and those born after 2000 are digital natives in the Mizoram context.

The Cronbach's alpha reliability test result for this questionnaire in SPSS is .827, which, according to Hinton et al. (2004), falls within the high reliability range. The DIDS scale or questionnaire is used as the primary instrument to assess respondents' level of internet dependency. Age is the most important demographic factor in this study, as the study group is broadly classified into digital natives (those born after the advent of the internet) and digital immigrants (those born before it). Several other demographic details may seem to be missing, but since they play little role in this study, only age is considered. The DIDS evaluation shows that if the score is (a) below 50, the respondents are not internet dependent; (b) between 50 and 100, the respondents are moderately dependent; and (c) above 100, the respondents are highly dependent on the internet.

The 30 questions in the DIDS are grouped into 6 sets of 5 questions each. The classified groups are Practice, Enhancement, Familiarity, Socialisation, Constraints and Dependency of internet use pattern; further details are provided in the Theoretical Framework section. To test the variance among the 6 categories of the 30 items in the (DIDS) scale, which are used for determining the level of internet dependency among the respondents, the following null hypothesis is proposed:

H_0 : There is no significant difference between the categories of the internet dependency scale.

As the population of the study is broadly divided into two categories, namely digital natives and digital immigrants, this study also tries to see if there is any difference in the internet use pattern among the digital natives and digital immigrants, thus formulating the following null hypothesis:

H_1 : There is no significant difference in internet usage between the digital natives and digital immigrants.

Theoretical Framework

Media Dependency Theory

With uses and gratification theory as its parent, Media Dependency Theory posits that it is important to consider the broader social structure in which the media operate, rather than focusing solely on the individual level to assess media effects. It tries to explain the effects of exposure to media messages upon individual beliefs and behaviour. Extended use of the media creates a close, dependent relationship with the audience. This theory states that the greater an individual's reliance on media to fulfil their needs, the more important media will be to that person. DeFleur and Ball-Rokeach (1989) defined dependency as 'a relationship in which the satisfaction of needs or the attainment of goals by one party is contingent upon the resources of another party'. They also mentioned three forms of dependency: the first is the requirement to be well up on one's social world; the second, the need to behave meaningfully and effectively in that world; and the third, the need for fantasy-escape from daily problems and tensions. Kim (2020) argued that dependency should not be misconceived as a pathological condition associated with excessive use of media or addiction. It may be better interpreted as the structural relationship between individuals and the mass media in their daily lives.

Patwardhan and Yang (2003) also argue that, according to Media Dependency Theory, the internet's potential to meet individuals' goals may have influenced users' online activities, and media dependency intensity depends on the perceived usefulness of the media in meeting those goals. This theory offers the most suitable argument for studying users' dependency on certain media, namely the structural relationship between individuals and the mass media in their everyday lives (considering the internet as a medium in this context). The central idea derived from Media Dependency Theory, which builds the foundation of this research, is the postulation:

If the mass media dominate the informational resources of individual's need to fulfil their goal, they are more likely to be dependent on it and that results in the increasing power of mass media, which could bring change in various aspects, such as cognitive, affective and behaviour of the users. (Kim, 2020)

Discussion

Out of 600 respondents, 272 (45.3%) are male, and 328 (54.7%) are female. Based on questions 14 and 15, there are 391 digital natives and 209 digital immigrants

among the respondents. Although the selected areas of this study include Aizawl, Lunglei and Champhai districts, some respondents also come from other districts, accounting for 8.2% of the total sample of 600. Surprisingly, the capital district (Aizawl) has the fewest respondents, even though its population accounts for 36.5% of Mizoram's total population. Out of 600, 200 samples were distributed to each district, but the collected data show different results: 22.5% (135) respondents from Aizawl, 39% (234) from Lunglei, 30.3% (182) from Champhai and 8.2% (49) from other districts. This shows that Aizawl (the capital city) has a mixed population, including those who do not identify themselves as Aizawlers.

The youngest respondent is 13, while the oldest is 71. There is no age restriction in this study, as the target groups are broadly divided into digital natives and digital immigrants; however, children under 12 are not encouraged to participate. The majority of respondents (91.2%) access the internet on mobile phones, while 1.2% use a computer or laptop, 0.8% use a tablet/iPad, 5.2% use all devices, and 1% left this option unattempted. This also shows that a study on mobile phone (or smartphone) use is likely to be synonymous with a study of internet use among them.

Regarding factors affecting internet use, this study found that 38.3% of the respondents cited entertainment as their reason for using the internet. Another 20.8% said they use the internet for its ease of access or affordability, and 18.7% use it due to peer pressure or others' influence. In comparison, 15.2% use it for work/education. The internet is a good domain to escape from problems for 5.7% of the respondents.

Diurnal Internet Dependency Scale Score Analysis

The respondent with the lowest score gets 50 points, while the highest score is 132. The mean of the total score is 91.45; the mode and median are both 91. The number of respondents falling under various age groups is as follows: 10–20 years = 348, 21–30 years = 189, 31–40 years = 38, 41–50 years = 16, 51–60 years = 8 and 61–70 years = 1.

The findings of the study show that the number of respondents who score below 50 = 0, between 50–100 = 434 and above 100 = 166.

Therefore, 73% of the respondents are moderately dependent on the internet, 27% are highly dependent, and none are not dependent.

Among the six groups (Practice, Enhancement, Familiarity, Socialisation, Constraints and Dependency), the Dependency theme has the highest score (10,693), followed by Enhancement (9,432) and Practice (9,171). Socialisation has a total score of 8,731, with Familiarity at 8,669 and Constraints at 8,314.

For the individual questions, Q30, technology, which depends on humans as the result of human activity (as in social shaping of technology), has the highest score (2,570). The next is Q29: 'I believe the internet is controlling human society' (derived from technological determinism) (with a score of 2,325). Q10, 'digital devices increase my productivity in study/work' came third (with a score of 2,274). The fourth is Q18: 'I believe the internet brings changes to the culture I live in' (2,166) and Q2, 'The last thing I do before I sleep at night requires an

Table 1. The Scores of Digital Natives and Immigrants in the Six Categories.

Categories	Digital Natives	Digital Immigrants
Practice	6,031 (16.6%)	3,140 (17%)
Enhancement	6,147 (17%)	3,286 (17.6%)
Familiarity	5,570 (15.37%)	3,063 (16.4%)
Socialisation	5,873 (16.2%)	2,856 (15.4%)
Constraints	5,563 (15.35%)	2,651 (14.2%)
Dependency	7,072 (19.51%)	3,621 (19.4%)

Table 2. Overview of the Respondents' Scores.

Statistics	Age	Score
Mean	21.66	91.45
Median	19.00	91.00
Mode	16	91
Std deviation	7.827	16.227

internet connection’, came fifth (2,152). The differences in the scores of digital natives and digital immigrants in each category are also evident in Table 1.

Statistical Test

After preparing the data, the analysis proceeded for quantification or calculations. The following section comprises the statistical analysis of the respondents’ scores. The overview of the mean, median, mode and standard deviation of the respondents’ total scores is shown in Table 2.

As the study’s total sample is broadly divided into two groups—digital natives and digital immigrants—Table 2 shows the frequency, mean, standard deviation and percentage for the two groups. There are 391 (65.3%) digital natives and 209 (34.8%) digital immigrants. The mean for digital natives is 92.69, and for digital immigrants, it is 89.13. The mean of the total score is 91.45, the median is 91, and the mode is 91, indicating a perfectly symmetrical frequency distribution. As Altinay (2016) wrote, the most crucial characteristic of a unimodal symmetric distribution is that the mean, median and mode coincide at the centre.

Normality Test

In statistical or econometric analysis, the normality test—checking whether the population distribution is normal or not—is an important aspect (Khatun, 2021). In the Shapiro–Wilk test, the *p* value must be greater than .05; if it is less than .05, the data are not normally distributed. Hence, a normality test is conducted in this research to examine the distribution of the sample population before proceeding to analysis of variance (ANOVA) and an independent-samples *t*-test. Table 3 shows that the data are normally distributed. In a normality test, the null

Table 3. Tests of Normality.

Shapiro–Wilk		
Statistic	df	Sig.
0.995	600	0.071

hypothesis assumes that the data are from a normally distributed population; therefore, when $p > .05$, the null hypothesis is accepted, indicating that the data are normally distributed (Mishra & Dangwa, 2019). Table 3 presents the Shapiro–Wilk test results with $p = .071$; since $\alpha > p$, the result is not statistically significant, and the data in this research can be considered normally distributed.

Analysis of Variance Test on the Six Categories

Based on the classification in the DIDS, a one-way ANOVA was conducted across the six groups to determine whether the differences among the means of the categories or groups are statistically significant. In any statistical test, when p is less than our α , we reject the null hypothesis, and a p value of approximately .000 suggests we should confidently reject the null (Carver & Nash, 2007). One-way ANOVA test results for the six categories of the DIDS scores are shown in Tables 4–7.

Digital Natives Score Analysis of Variance

Table 4 presents the results of the one-way ANOVA comparing within- and between-category differences in digital natives’ scores.

Digital Immigrants Score Analysis of Variance

Table 5 shows the one-way ANOVA results for the digital immigrants’ scores across the six categories of the DIDS.

Total Score of Both Digital Natives and Digital Immigrants Analysis of Variance

Table 6 presents the one-way ANOVA results for the total (overall) score within and between the six categories for both digital natives and digital immigrants. The three tables show that the p values are significant at the $\alpha = 0.05$ level. As the $p < .01$, we can see that there are significant differences between the six categories—Practice, Enhancement, Familiarity, Socialisation, Constraints and Dependency among the scores of digital natives and digital immigrants separately as well as within the total score. The above tables reveal significant differences between groups and within the six categories of the DIDS scores for digital natives and digital immigrants separately, as well as within their total scores; therefore, the null hypothesis below is rejected.

H_1 : There is no significant difference between the categories of the DIDS scale.

and the following alternate hypothesis is accepted:

H_A : There is a significant difference between the categories of the internet dependency scale.

Table 4. One-way Analysis of Variance (ANOVA) on Categories of Digital Natives' Scores.

Categories		Sum of Squares	df	Mean Square	F	Sig.
Practice	Between groups	3,796.61	74	51.31	7.07	0.000
	Within groups	2,294.91	316	7.26		
	Total	6,091.52	390			
Enhancement	Between groups	2,396.07	74	32.38	4.87	0.000
	Within groups	2,100.54	316	6.65		
	Total	4,496.61	390			
Familiarity	Between groups	1,955.03	74	26.42	4.86	0.000
	Within groups	1,717.4	316	5.44		
	Total	3,672.43	390			
Socialisation	Between groups	2,976.21	74	40.22	4.99	0.000
	Within groups	2,545.63	316	8.06		
	Total	5,521.84	390			
Constraints	Between groups	4,926.99	74	66.58	8.69	0.000
	Within groups	2,422.66	316	7.67		
	Total	7,349.64	390			
Dependency	Between groups	3,123.06	74	42.2	6.56	0.000
	Within groups	2,031.99	316	6.43		
	Total	5,155.04	390			

Table 5. One-way Analysis of Variance (ANOVA) on Categories of Digital Immigrants' Scores.

Categories		Sum of Squares	df	Mean Square	F	Sig.
Practice	Between groups	1,878.395	66	28.461	3.754	0.000
	Within groups	1,076.485	142	7.581		
	Total	2,954.880	208			
Enhancement	Between groups	1,932.945	66	29.287	4.655	0.000
	Within groups	893.399	142	6.292		
	Total	2,826.344	208			
Familiarity	Between groups	1,563.909	66	23.696	4.910	0.000
	Within groups	685.288	142	4.826		
	Total	2,249.196	208			
Socialisation	Between groups	2,031.424	66	30.779	3.784	0.000
	Within groups	1,155.131	142	8.135		
	Total	3,186.555	208			
Constraints	Between groups	2,104.135	66	31.881	3.947	0.000
	Within groups	1,147.023	142	8.078		
	Total	3,251.158	208			
Dependency	Between groups	2,151.678	66	32.601	4.966	0.000
	Within groups	932.198	142	6.565		
	Total	3,083.876	208			

Table 6. One-way Analysis of Variance (ANOVA) on Categories of the Total Response.

Categories		Sum of Squares	df	Mean Square	F	Sig.
Practice	Between groups	4,932.850	80	61.661	7.738	0.000
	Within groups	4,135.415	519	7.968		
	Total	9,068.265	599			
Enhancement	Between groups	3,763.329	80	47.042	6.859	0.000
	Within groups	3,559.631	519	6.859		
	Total	7,322.960	599			
Familiarity	Between groups	3,066.607	80	38.333	6.913	0.000
	Within groups	2,877.911	519	5.545		
	Total	5,944.518	599			
Socialisation	Between groups	4,753.617	80	59.420	7.334	0.000
	Within groups	4,204.981	519	8.102		
	Total	8,958.598	599			
Constraints	Between groups	6,806.218	80	85.078	10.425	0.000
	Within groups	4,235.455	519	8.161		
	Total	11,041.673	599			
Dependency	Between groups	4,892.556	80	61.157	9.266	0.000
	Within groups	3,425.362	519	6.600		
	Total	8,317.918	599			

Table 7. Category-wise Score of Digital Natives (DN) and Digital Immigrants (DI).

Categories	Digital Natives	Digital Immigrants
Practice	6,031 (16.6%)	3,140 (17%)
Enhancement	6,147 (17%)	3,286 (17.6%)
Familiarity	5,570 (15.37%)	3,063 (16.4%)
Socialisation	5,873 (16.2%)	2,856 (15.4%)
Constraints	5,563 (15.35%)	2,651 (14.2%)
Dependency	7,072 (19.51%)	3,621 (19.4%)

This shows that there are differences in the various ways in which the internet is used such as users' daily dose of internet (Practice), their ease of use (Familiarity), the way the internet enhances users' daily functioning (Enhancement), the way people socialise through the internet (Socialisation), the limitation or difficulties it causes to the users (Constraints) and their overall reliance on the internet (Dependency). The score detail can also be seen in Table 1. This ANOVA test is also used to assess statistical significance, as the DIDS scale is newly developed and employed for the first time in this study. Digital natives are more comfortable

exchanging relatable memes or reels as part of ‘checking on each other’. In contrast, digital immigrants may prefer phone calls or text messages for a personal touch. Digital natives admit that the so-called influencers on social media easily influence them and that they are more likely to adopt certain behaviours and purchase promoted products. In contrast, influencer culture has less influence on digital immigrants. Digital natives tend to prioritise active engagement, instant responses, bite-sized, mainly trend-driven content.

In contrast, digital immigrants are more inclined to embrace long-form, high-quality content, as they value originality more than viral content. The most popular social media platform for the digital immigrants—Facebook—becomes an old-fashioned space for the digital natives who are more accustomed to Instagram (after the TikTok ban in 2020). The major constraint caused by the internet among digital immigrants is the difficulty of keeping up with the evolving language of digital culture. Still, for digital natives, their digital fluency often increases their fear of missing out. Authenticity, one of the core values of digital immigrants, is becoming increasingly irrelevant to digital natives, who are drawn to acceptability and popular norms.

Independent Samples t-Test on the Scores of Digital Natives and Digital Immigrants

A *t*-test compares two group means where the groups are independent of each other, for instance, boys and girls. It is used to assess variation in the means of a dependent variable between two given categories or groups. Invented by William Sealy Gosset in 1908, the *t*-distribution assumes that the sample mean follows a normal distribution when drawn from a normally distributed population (Kim, 2019). If the result of the pretest (i.e., normality test) is not significant ($\alpha \geq p$ value), then a *t*-test is conducted to test the hypothesis of equal population means at significance level α , but if the null hypothesis is rejected at the preliminary test, the main analysis applies a nonparametric test (Rochon et al., 2012). Therefore, because the normality test shows a *p* value of .071 (see Table 3), a *t*-test is conducted in this study to examine the difference in scores between digital natives and digital immigrants.

Table 8 shows a highly significant difference in the total scores between digital natives and digital immigrants (*p* value = .01). Hence, since the *p* value is < .05, we can consider that the null hypothesis.

H_0 : There is no significant difference in internet usage between the digital natives and digital immigrants.

Hence, the null hypothesis is rejected, and the alternative hypothesis (below) is accepted.

H_1 : There is a significant difference in internet usage between the digital natives and digital immigrants.

Table 8. Independent Samples t-test Between the Scores of Digital Natives (DN) and Digital Immigrants (DI).

t-Test for Equality of Means		t	df	Sig. (Two-tailed)	Mean Difference	Std Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Score	Equal variances assumed	2.57	598	0.01	3.56	1.38	0.84	6.28
	Equal variances not assumed	2.59	431.78	0.01	3.56	1.38	0.85	6.26

Therefore, this study shows differences in internet use patterns between digital natives and digital immigrants in Mizoram. While digital natives rely on the internet more out of familiarity and dependence, digital immigrants are mostly driven by a desire for improvement. They have yet to become accustomed to using various internet features. The purpose of internet use may also vary. For the digital natives, the internet is a part and parcel of their lives. They use it simply as a member of a community, like consuming OTT content and online gaming, but for the digital immigrants, they try to catch up with the new technology, knowing that it can make their lives easier and more convenient; for instance, learning online banking and bill payments, instant messengers for quicker conversations and so on.

Ethical Issues with Internet Usage

The issues regarding ethical internet usage are studied through semi-structured interviews with village and city leaders. Most of the interviewed local leaders said there are no serious issues in their jurisdictions related to internet misuse. Still, there are cases at the family level that the family members themselves often handle. Since Mizo society is a close-knit one, family image and reputation can be very important; therefore, each family tries to keep its problems within itself as long as possible. Issues such as a teenager squandering his mother’s money online via the Unified Payments Interface (UPI) while playing games were mentioned. The helpless, digitally illiterate mother, who her own son robbed, went to the bank seeking help from the staff to protect her bank account, as a hefty amount had gone missing without her knowledge. Many parents fall victim to online financial theft, but they keep it to themselves to protect their family’s reputation. They passively admit that their children have the upper hand in terms of internet use and can even take advantage of their parents’ ignorance.

The ‘constraints’ brought by a lack of ‘familiarity’ in parents’ (or digital immigrants’) internet use patterns could become an opportunity for ‘practice’ for their children (or digital natives), which consequently enhances the ‘enhancement’

brought by the internet. Therefore, this enhancement could eventually lead digital natives to take advantage of digital immigrants' lack of familiarity. To put it another way, differences in internet use patterns between digital natives and digital immigrants often create problems within families. When such problems intensify, the internet's dependency itself can cause inconvenience.

All participants mentioned the need for greater awareness of ethical internet use. Champhai informants also mentioned that there had been one suicide case, which was considered a result of Mobile Legends online gaming, and another murder case, which was also believed to be a consequence of PlayerUnknown's Battlegrounds (PUBG) online games. The identity of the concerned person(s) was not revealed. The micro-level, or family-level, impact of the internet, which many families struggle with, will have a macro-level impact in no time. The President said that the most powerful NGO in Mizoram, the Young Mizo Association (YMA), usually brings reports of internet misuse to the concerned office, the Cyber Crime Bureau of the Mizoram Police. Unethical internet practices can eventually lead to criminal involvement. The Junior Cyber Forensic Consultant, Samuel Lalsangzuala, said that most of the cybercrime cases reported in Mizoram involve financial issues.

The Cyber Crime Department at the Mizoram Police Headquarters was officially inaugurated on 27 November 2023 by the then Director General of Police (DGP), S. B. K. Singh. The number of crime records has been increasing at an alarming rate. By 2020, there were 12 cases; 25 in 2021; 158 in 2022; 73 in 2023; 41 in 2024 and 13 cases until March 2025. Of these cases, the majority involved financial fraud, followed by identity theft (fake accounts/impersonation). Sexual harassment, social media harassment, cases of child pornography, false rumours and copyright-related cases were also common. Most crimes committed within the state are easier for them to investigate. The national-level cybercrime meetings also often highlighted common issues faced by various states, such as cybercrime committed across state borders, which is more challenging for any one state to handle. The Junior Cyber Forensic Consultant also mentioned that not only IT professionals, but also every citizen needs awareness to keep vigil so that they will not become victims of cybercrime, and, to quote him, 'If we do not upgrade ourselves to tackle the rising misconduct, there is a higher chance for everyone to experience a cyber attack'.

Since 2021, around 113 individuals have been arrested for cybercrime-related offences, and of these, 40 have been convicted and served their due penalties. Regarding cyber financial fraud, the Cyber Crime Bureau of Mizoram has recovered around ₹14,200,000. Samuel further said that the most common motive for committing cybercrime is the desire for easy money. Cybercrime is often perceived as highly technical, but around 90% of cybercrimes committed at the state and national levels involve financial fraud and are not always complex technical issues. The Cyber Consultant also highlighted that the state needs a robust cyber law and a strong workforce to tackle cybercrime, as the Information Technology (IT) Act, 2000, is the only existing one. This Act seems to require context-specific modifications based on the nature and occurrence of crimes across regions. In the context of cybercrime, judgment is usually made under the law (basically IT Act

2000). Therefore, it can be difficult to generalise about what is ethical and unethical solely through the lens of cybercrime, since what seems unethical may not be punishable under the law.

Conclusion

The DIDS score indicates that all the respondents are internet-dependent; the majority (73%) consider themselves moderately dependent, while almost one-third (27%) are highly dependent. Since this evaluation is based on self-assessment, the findings could differ significantly if users were asked to evaluate each other's internet usage rather than their own. There is a significant difference in the internet usage between digital natives and digital immigrants, as digital devices become an 'extension of self' for both groups. Many respondents are reluctant to publicly admit they are internet-dependent, fearing it might make them look susceptible. They seem to comprehend internet dependency as implying frailty or vulnerability.

The respondents tend to support the Media Dependency Theory, as they use the internet more when they get what they want (satisfaction) from it. The level of internet dependence can also affect ethical/unethical internet use, with a higher likelihood of unethical use with greater dependence. There is a thin line between what is unethical and what is illegal. The concern becomes how far is too far for unethical behaviour to become a crime. This calls for proper guidelines or regulations from the higher authorities to establish standards for distinguishing between the two, as greater dependence on the internet (particularly for easier, quicker profit-making) often leads to more unethical practices that can eventually result in cybercrime. Despite its conveniences, the internet has brought certain challenges, as users are not immune to its adverse effects. Therefore, intervention by policy-makers or higher authorities to ensure ethical and legal appropriateness in its regulation, such as promoting internet education and digital literacy, may help tackle unethical practices, as internet dependence is expected to increase in the near future.

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References

- Altinay, G. (2016). *A simple class of measures of skewness* (Working Paper No. 72353). Munich Personal RePEc Archive.
- Carver, R. H., & Nash, J. G. (2007). *Doing data analysis with SPSS version 14*. Thompson Corporation.
- Cuan-Baltazar, J. Y., Muñoz-Pérez, M. J., Robledo-Vega, C., Pérez-Zepeda, M. F., & Soto-Vega, E. (2020). Misinformation of COVID-19 on the internet: An infodemiology study. *JMIR Public Health and Surveillance*, 6(2), e18444.
- DeFleur, M. L., & Ball-Rokeach, S. J. (1989). *Theories of mass communication* (5th ed.). Longman.
- Gorain, S. C., Saha, B., Maji, S., & Sen, S. (2022). A study on the relationship and cluster analysis among internet dependency, social isolation and personality. *International Journal of Research Publication and Reviews*, 3(1), 884–888.
- Hinton, P. R., Brownlow, C., McMurray, I., & Cozens, B. (Eds). (2004). *SPSS explained* (pp. 355–366). Routledge.
- Hussain, J., & Hnamte, V. (2021). A brief study on cybercrimes and practices in Mizoram. 2021 *International Conference on Informatics, Multimedia, Cyber and Information Systems (ICIMCIS)*, 232–237. <https://doi.org/10.1109/ICIMCIS53775.2021.9699193>
- Khatun, N. (2021). Applications of normality test in statistical analysis. *Open Journal of Statistics*, 11(1), 113.
- Kim, H. Y. (2019). Statistical notes for clinical researchers: The independent samples *t*-test. *Restorative Dentistry & Endodontics*, 44(3), e26.
- Kim, Y. C. (2020). Media system dependency theory. In J. Bulck (Ed.), *The international encyclopedia of media psychology* (pp. 1–17). John Wiley & Sons. <https://doi.org/10.1002/9781119011071.iemp0135>
- Lalfakzuala, R. (2008). *Media-in Mizo khawtlang a nghawng dan*. Chaltlang South Branch KTP.
- Mahanti, J., Mondal, B. C., & Saha, B. (2016). Internet dependency of undergraduate students: An empirical study. *American International Journal of Research in Humanities, Arts and Social Sciences*, 15(2), 171–174.
- Mishra, D., & Dangwa, K. L. (2019). Web-based education: History and scope in India. *Journal of The Gujarat Research Society*, 21(5), 461–467.
- Nawi, N. W. M., Alsagoff, S. A., Osman, M. N., & Abdullah, Z. (2020). New media use among youth in Malaysia: A media dependency theory perspective. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3097–3112.
- Patwardhan, P., & Yang, J. (2003). Internet dependency relations and online consumer behaviour: A media system dependency theory perspective on why people shop, chat, and read news online. *Journal of Interactive Advertising*, 3(2), 57–69.
- Paul, P., & Indu, D. (2022). Cyber illiteracy and cyber intrusions: With special reference to the scheduled tribe of North-East India. *International Journal of Law Management & Humanities*, 5(2), 1391–1398.
- Rochon, J., Gondan, M., & Kieser, M. (2012). To test or not to test: Preliminary assessment of normality when comparing two independent samples. *BMC Medical Research Methodology*, 12, 81. <https://doi.org/10.1186/1471-2288-12-81>
- Sari, D., Rejekiingsih, T., & Muchtarom, M. (2020). Students' digital ethics profile in the era of disruption: An overview of internet use at risk in Surakarta City, Indonesia. *International Journal of Interactive Mobile Technologies (iJIM)*, 14(3), 82–94. <https://doi.org/10.3991/ijim.v14i03.12207>

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