

## **Indian Youth Inclination towards Unethical Practices in the use of Information and Communication Technology**

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### **ABSTRACT**

The Information and Communication Technology has deepened its roots into our lifestyles and become an indispensable power churning machismo, giving one the freedom to do whatever one wills to, at the click of a button. However, most of this freedom leads one to dilemmas, where he/she may find a thin difference between right and wrong. The purpose of this study was to explore and understand the present day youth's inclination towards unethical practices in the ICT Industry. In more specific, their inclination to adopt malpractices, such as plagiarism, digital piracy and social network abuse, have been empirically explored. Based on the survey of 123 undergraduate students, independent sample t-test and simple regression analysis were employed to analyze the empirical data. The findings suggest that these easily available user friendly technologies, which the present day youth is deeply familiar with, also lead to misuse or unethical practices. Demographic variables like gender and education and psychological variables like self-concept clarity too seem to impact their ethical/unethical behaviour. It was expected that the findings would contribute meaningfully towards framing guidelines and practices for developing a better ethical environment and character in youth.

*Keywords:* Digital piracy, ethics, plagiarism, self concept clarity, social networking ethics

### **INTRODUCTION**

In the present day, Information and Communication Technology (ICT) has

taken over every aspect of our daily lives - from commerce to leisure, and even culture. Today, mobile phones, desktop computers, hand held devices, emails and the use of Internet has become a central part of our lifestyle. ICT has made us a global society, where people can interact and communicate swiftly and efficiently. ICT has even

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contributed towards the elimination of language barriers. Formally, ICT may be defined as “A general term for all kinds of technologies which enable users to create access and manipulate information. ICT is a combination of information technology and communications technology.”

We are an Information based society with distances on the globe considerably reduced and access to resources becoming easier. All of these, at the cost of exposing the most valued although impressionable part of our society, the youth, to the unchecked power which accompanies the use of such brilliant technologies. Be it the easy access to information (sometimes even classified) over various networks, or the presence of everyone’s personal information on Social Networking portals, or even the availability of someone’s intellectual property for free (generally without the owner’s consent) on such resources, the technologies at hand present dilemmas, where, being right or wrong might not often be very well defined, and hence becomes a matter of one’s ethics.

Information and Communication Technology is a double-edged sword that can be used for destructive as well as constructive work. In India, so far, the use of these technologies has been uncontrolled. For example, according to the National Crime Records Bureau India, reported Cyber Crimes (IT Act + IPC Sections) increased by 22.7% in 2007 (refer Table 1) as compared to the previous year (from 453 in 2006 to 556 in 2007). Cyber Forgery contributed the major part, with 64.0% of the cases under IPC (217 out of total 339) and Cyber Fraud, followed by 21.5% of the cases under the same category (73 out of 339). The one fact which is the most worrying is that 63.05% of the offenders (refer Table 2) under the IT Act were in the age group between 18-30 years (97 out of 154).

It is our tendency to blame the advances made in Science for such observations. However, they are not the sole culprits. To further explain this, an excerpt from Mario Morino’s address would be appropriate. He remarked, “I also contend, however,

TABLE 1  
Incidence of Cases Registered Under Cyber Crimes

Year	IT Act			IPC		
	2005	2006	2007	2005	2006	2007
India	179	142	217	302	311	339

TABLE 2  
Person Arrested Under IT Act by Age Group During 2007

Age Group	<18	18-30	30-45	45-60	>60	total
India	179	142	217	302	311	339

that if we make the right choices now, we can substantially change for the better how we and our children learn, and more important, how the young people of today and generations to come are taught to learn. I say that because I am mindful that technology itself is never the reason things change. Rather, it is how people choose to apply technology – and whether they make wise decisions and address real needs – that makes the difference in the long run” (Morino, 1997).

The professionally trained individuals of our country are adequately skilled today. He/she has the knowledge and technical proficiency that is sufficient to create marvels, and at the same time, if he/she wills, to misuse them. The tools available for everyone are the same, but the discriminating factor is the individual’s choice on how to use them, which in turn is governed by their personal ethics.

In such a scenario, when the Indian ICT industry is growing at a rate which is worth applauding, it is also paving a way to a widespread unethical use of such technologies. The deterrents to such unethical practice are primarily two - stringent cyber laws, and one’s own value system reflected in ethical/unethical behaviour. The focus of this study is on the latter. Given the fact that it is the youths which make the most rampant use of technology, it is pertinent to assess the inclinations towards misuse or unethical use of such technologies. Thus, the specific objectives of the study are: 1) to measure inclination towards unethical practices such

as plagiarism, digital piracy, and misuse of social networks; 2) to explore differences in such inclination with respect to gender and academic/technical background, and; 3) to examine the association between self concept and inclinations towards such behaviour.

### **ETHICAL BEHAVIOUR AND RELATED ISSUES**

In the current decade, there has been a great focus on the outcomes of the present day technology on value systems, lifestyles and behaviour, by both academicians and practitioners. Ethics answer questions related to morality, and hence help one to choose between right and wrong, good and evil, etc. Therefore, ethical behaviour is applying these ethics whenever and wherever required, even when it is inconvenient to do so. The importance of understanding the meaning and value of ethics is much more today, when we can do so much with technology, and not be accountable for it. In an era where information technology changes constantly, a thoughtful response to these rapid changes requires a basic understanding of IT history, an awareness of current issues, and a familiarity with ethics. Michael Quinn’s work on ethics for IT society is unique in its balanced coverage of ethical theories used to analyze problems encountered by computer professionals in today’s environment. By presenting provocative issues such as social networking, government surveillance, and intellectual property from all points of view, this market-leading text challenges

students to think critically and draw their own conclusions, which ultimately prepares them to become responsible, ethical users of future technologies (Quinn, 2011). In his book on computer ethics, Herman T. Tavani introduces readers to the most current issues in the field of cyberethics (ethics in the computer industry), along with analyzing the practical, moral, and legal implications of all these issues, such as security and privacy in cyberspace, as well as code of conduct and moral responsibility (Tavani, 2006). Ethical behaviour is characterized by honesty, fairness and equity in interpersonal, professional and academic relationships and also in research and scholarly activities. The standards that you set for yourself are applicable even behind your own doors where only you know what to do. Another author to have explored this area is Deborah G. Johnson in her book on computer ethics. She starts by defining computer ethics and explores them on philosophical and professional levels. She also addresses the common issues of privacy, security and accountability and has dedicated separate chapters for internet ethics (Johnson, 1998). Addressing computer ethics from a novel perspective, Luciano Floridi talks about a digital divide in his study. According to him, a “Digital Divide” is the source of many ethical problems emerging from the evolution of two gaps, one vertical and other horizontal. The vertical gap separates ours from past generations whereas the horizontal gap is between humanity, that is, insiders and outsiders (in reference to technical education) (Floridi, 2001).

The sections below present a framework on three aspects related with unethical practices, vis-à-vis ICT- plagiarism, digital piracy and social networking ethics.

#### *Plagiarism-Perceptions and Attitude*

Plagiarism is a word which is used in varied contexts. It may be seen as the act of stealing and passing off as one’s own; use without crediting the source; use another’s production without crediting the source; to commit literary theft, i.e. present as new and original an idea or a product derived from an existing source (Merriam Webster’s Collegiate Dictionary). People are often confused about plagiarism, and most of the time, are not aware of the fact, as to whether they are engaged in plagiarism or not. Burke (1997) defines four forms of cheating in his study:

- Cheating is “intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.”
- Fabrication is “intentional and unauthorized falsification or invention of any information or citation in an academic exercise.”
- Facilitating academic dishonesty is “intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty”
- Plagiarism is “intentionally or knowingly representing the word of another as one’s own in any academic exercise.”

This study investigated faculty's (1) perceptions of the extent of academic honesty; (2) perceptions of, and attitudes toward Academic Dishonesty Policy and policy implementation; (3) responses to academic dishonesty; (4) attitudes concerning values education; and (5) attitudes about responsibility for reducing academic dishonesty. The results indicated that the faculty does not perceive academic dishonesty to be a serious problem. The faculty believe that it is familiar with the current policy and procedure, and is not concerned with policy implementation. The faculty also believes that it has a primary role in values education. Of those surveyed, 86% members have suspected, and 65% have been certain of, academic dishonesty in their classrooms. The majority of the faculty members do not regularly follow institutional policy and most handle incidents of cheating and plagiarism on their own. They believe that the responsibility for reducing academic dishonesty lies primarily with students and faculty (Burke, 1997).

Numerous writers have attempted to define the concept of plagiarism. In an excellent bibliography on plagiarism (reviewing articles from 1990 to 1995), Anderson discusses different definitions in the historical, cultural, and disciplinary contexts. The annotated bibliography is organized chronologically, following an extensive Introductory section, and discussed under four sections:

1. trends in definition;
2. follow the money;

3. detection, proof, and punishment; and,
4. protecting one's property (Anderson, 1998).

Ange'lil Carter, in her work on plagiarism, discusses the historical development of the notion of plagiarism, along with copyright. From the British perspective, she tries to convey that plagiarism is an elusive concept and has been treated differently in different contexts. Ange'lil-Carter wrote in her Introduction that she wanted to "understand plagiarism differently," and to communicate that understanding to teachers and writers of academic discourse (Anderson, 2000).

In another scholarly article on Plagiarism of Print and Electronic Resources, author Zorana Ecegovac discusses plagiarism of printed and electronic resources, explores definitions of plagiarism, and provides a literature review. The entry then discusses the following issues: how prevalent plagiarism is, faculty's attitudes towards plagiarism in general, cyber-plagiarism in particular, predictors that correlate with plagiarism, and how to cope with plagiarism along with offering suggestions for future research on the topic of plagiarism. The study suggests a trend towards a significant increase in some published articles on plagiarism since Internet has become widely available in various educational institutions. Also, the faculty knows about the academic dishonesty but is not bothered about the policy implementation. The study goes on to give methods to cope with plagiarism which include Ethical Reasoning, Online Instruction, Software

Detection Programmes, etc. (Ecregovac, 2010).

Meanwhile, Jude Carroll and Jon Appleton came up with a practice guide on plagiarism. They started with introducing the problem and what plagiarism is. They suggested learning based methods for dealing with plagiarism like informing students about institutional policies and programme expectations, using assessment to check authenticity, using electronic detection tools, and implementing a coordinated strategy against plagiarism (Carroll & Appleton, 2001).

The study by Smith and Wendy explored the notion of plagiarism and the Internet from English teachers and students in Australia. The most significant difference in response related to the concept of the Internet is copyrightable space. Teachers in this study regarded cyberspace as a limitless environment for 'cut and paste' plagiarism in students' academic writing, whereas students considered the Internet a 'free zone' and not governed by legal proprietary rights. These conflicting views, it is suggested, relate to differing notions of authorship and attribution. This research highlights the need to make youth aware of plagiarism and the ethics related to it (Smith & Wendy, 2005).

It is evident from the literature studied that plagiarism is mostly practiced among the youth. It may be done knowingly or unknowingly. Even the technically skilled may not be aware of indulging into plagiarism, and some although aware of what they are doing, do not hesitate in

doing so. It is therefore aimed that the same tendencies may be evaluated in this study.

### *Digital Piracy and Deterrents Thereof*

Piracy is obtaining materials without proper rights of their ownership. Digital Piracy, as defined by Sulaiman Al-Rafee and Timothy Paul Cronan, is "the illegal copying or downloading of copyrighted software and media files" (Rafee & Cronan, 2006).

In order to curb piracy, two popular methods are used, namely, preventives and deterrents. Preventives impede the act of piracy by making it very hard to do so. The idea is to make the pirates expend so much effort that it will wear them out and they will abandon it. Deterrents, on the other hand, use the threat of legal sanctions to prevent piracy (Gopal & Sanders, 1997). Instead of relying solely on preventives and deterrents, it is better to understand what influences people to commit piracy. This is especially important because many studies have suggested that individuals do not see piracy as a crime or an unethical issue (Im & Van Epps, 1991; Reid *et al.*, 1992). Solomon and O'Brien (1990) examined the attitude towards piracy among business students and found that they view piracy as socially and ethically acceptable, and that piracy is rather widespread among business students.

Robert M. Siegfried, in his framework on attitudes towards piracy, concludes that software piracy is older than the personal computer and has been subject of various studies, which have found it to be a widespread phenomenon in general, and among university students in

particular. Similarly, students generally feel that copying commercial software and downloading music from the internet is acceptable. He has also discussed the reasons for this and also the corrective measures that could be taken by colleges (Seigfried, 2005). Another study which talks about digital piracy and behavioural aspects was carried out by Sulaiman Al-Rafee and Timothy Paul Cronan. The study examined the factors influencing an individual's attitude towards pirating digital material. The results of the study suggest that attitude toward digital pirating is influenced by the beliefs about the outcome of behaviour, happiness and excitement, age, the perceived importance of the issue, the influence of significant others, and Machiavellianism (Rafee & Cronan, 2006).

Another study throws light on consumers' ethics regarding MP3 Piracy states that illegal downloading of music has become an inexorable and rampant activity, particularly among college students who have been minimally deterred by industry legal actions. The results clearly show that downloading continues at a high rate today and this is driven by a strong belief that it is not ethically wrong. Ethical orientation was found to be positively associated with the awareness of the social cost of downloading, consequences of downloading, and the ethical belief in downloading (Durvasula & Lysonski, 2008).

Understanding that piracy, particularly digital piracy, is easily achievable for the technically competent youth today, the current study made an attempt to assess the same in the present day youth population.

### *Social Networking Ethics*

Millions of contemporary young adults use social networking sites. However, little is known about how much, why, and how they use these sites. The study aimed at answering these questions and coming up with results which indicated that the students use Facebook approximately 30 min throughout the day as parts of their daily routine. Students communicate on Facebook using a one-to-many style, in which they are the creators disseminating content to their friends. Even so, they spend more time observing content on Facebook than actually posting content. Facebook is used most often for social interaction, primarily with friends with whom the students have a pre-established relationship offline. In addition to the classic identity markers of emerging adulthood, such as religion, political ideology, and work, young adults also use media preferences to express their identity. The implications of social networking site use for the development of identity and peer relationships are discussed (Calvert, Pempek, & Yermolayeva, 2009).

Social Networking is a technology that allows people to connect with others and to form meaningful personal or professional relationships. However the hacking of various social networking site accounts has highlighted various possible harms of this popular technology. In order to balance these harms and benefits, there is a need to understand what social networking ethics are and what one's take on them is. Ethics are related to morality and thus social networking ethics are related to the sense

of right and wrong, black and white, etc. in context to the various social networking sites like Facebook, Twitter, Myspace, etc.

On her framework about teenagers' use of social networking sites, Sonia Livingstone talks about the explosion in the social networking sites being regarded as an exciting opportunity, especially for the youth. Yet the public response tends to be one of a puzzled dismay regarding a generation that, supposedly, has many friends but little sense of privacy and a narcissistic fascination with self-display. This article explores teenagers' practices of social networking to uncover the subtle connections between online opportunity and risk. While younger teenagers relish the opportunities to continuously recreate a highly-decorated, stylistically-elaborate identity, older teenagers favour a plain aesthetic that foregrounds their links to others, thus expressing a notion of identity lived through authentic relationships. The article further contrasts teenagers' graded conception of 'friends' with the binary classification of social networking sites, this being one of several means by which online privacy is shaped and undermined by the affordances of these sites (Livingstone, 2011).

Another study by Patti M. Valkenburg, Jochen Peter and Alexander P. Schouten found that the frequency with which adolescents used the site had an indirect effect on their social self-esteem and well-being. The use of the friend networking site stimulated the number of relationships formed on the site, the frequency with

which adolescents received feedback on their profiles, and the tone (positive versus negative) of this feedback. In particular, positive feedback on the profiles enhances adolescents' social self-esteem and well-being, whereas negative feedback decreases their self-esteem and well-being.

Social networks have become more than just simple ways of connecting to people in our lives. They are a very integral part of our lifestyles today, and this is even more so for the youth. With such a growing number of people using these facilities and sharing delicate information on the same, the ethical practices while using these networks have become a prime concern. Hence, this study evaluated the Indian youth's perception on how to act when using the same (Valkenberg, Peter, & Schouten, 2006).

#### *Self Concept Clarity*

Self concept clarity (SCC) refers a structural aspect of the self concept; the extent to which self-beliefs are clearly and confidently defined, internally consistent, and stable. Low Self concept clarity has generally been associated with low self esteem, low agreeableness, chronic self-analysis, low internal state awareness and high neuroticism (Self Concept Clarity: Measurement, Personality Correlates, and Cultural Boundaries) (Campbell *et al.*, 1996).

Within the last couple of decades, psychologists' view of the self-concept has undergone a dramatic transformation (Markus & Wurf, 1987). Early researchers treated self-concept as a unitary, monolithic



entity—a stable, generalized view of the self—and typically focused their research efforts on a single aspect of the self-concept, self-esteem. Contemporary researchers, in contrast, rely on a multifaceted, dynamic construal in which self-concept is defined as a cognitive schema—an organized knowledge structure that contains traits, values, episodic and semantic memories about the self and controls the processing of self-relevant information (e.g., Markus, 1977; Greenwald & Pratkanis, 1984; Kihlstrom & Cantor, 1984; Kihlstrometal, 1988).

The current conceptualization allows a distinction between the contents of the self-concept and its structure. The contents can be usefully subdivided into knowledge components—Who/What am I?—and evaluative components—How do I feel about myself? Some examples of knowledge components include the beliefs about one's specific attributes (e.g., traits, physical characteristics), as well as roles, values, and personal goals. Evaluative components include the positivity of specific self-beliefs and self-esteem, a global self evaluation that is the product of viewing “the self” as an attitude object. Meanwhile, structural characteristics of the self-concept refer to how the knowledge components or specific self-beliefs are organized. For example, Linville (1985, 1987) coined the term self-complexity to represent the number of different or independent dimensions that underlie the organization. Donahue and her associates (Donahue, Robins, Roberts, & John, 1993) focused on a different aspect of complexity, i.e. the extent to which

these dimensions are integrated. Another structural variable can be found in Showers' (1992) work on compartmentalization, i.e. the extent to which positive and negative self-beliefs reside in different dimensions.

While literature focusing on ethics and behaviour in youth with the use of these technologies is readily available, little has been studied on relating this with an individual's self concept. This study made an attempt on the same. In particular, it aimed to empirically explore the association of self concept with the inclination towards such practices.

The purpose of this study was to find the youth's temperament towards ethics in the information and communication industry; hence, the topics most relevant and associated with the youth were given a preference over all the others. While most of the previous research concentrated on these topics individually, this study examined the above mentioned three topics, along with the factors affecting them and relating the corresponding findings to one's behavioural patterns using self concept clarity. By doing so, measures to alter those factors can be implemented and thus influence behaviour indirectly.

## METHODOLOGY

The purpose of this study was to make an empirical investigation of youth inclination towards unethical behaviour vis. a vis. ICT. It made a measurement of (1) inclination towards plagiarism; (2) inclination towards digital piracy; and (3) inclination towards unethical use of social network. In addition

to this, it also measures self concept clarity and proposes that self concept clarity is negatively related with the above mentioned constructs. The study also explored the impacts of gender and educational background (technical or non-technical) on these variables. Based on this, the following hypotheses were postulated:

H<sub>1</sub>: Student's inclination towards plagiarism differs for (a) male and female students, and between (b) technical and non-technical students.

H<sub>2</sub>: Student's inclination towards digital piracy differs for (a) male and female students, and between (b) technical and non-technical students.

H<sub>3</sub>: Student's inclination towards unethical use of social network differs for (a) male and female students, and between (b) technical and non-technical students.

H<sub>4</sub>: Self Concept Clarity of a student is negatively related with (a) inclination towards plagiarism, (b) inclination towards digital piracy, and (c) inclination towards unethical use of social network.

#### *Operationalization of the Measures*

The review of literature revealed non-existence of the scales which specifically measured ethical/unethical behaviour using the present day digital mediums. Therefore, these scales were developed and details are presented below:

**Inclination towards plagiarism:** A multi-item five-point Likert scale with the following indication was used: (1) strongly disagree ..... (5) strongly agree. A lower value on this scale represents an ethical inclination and vice versa. The five-statement frame, which was a part of this scale, included the inclination towards copying from peers, books and digital resources, acknowledging sources, etc. Co-efficient alpha was used to assess the internal consistency of the scale and Cronbach alpha reported as .690, which deemed the scale as reliable (Nunally, 1978).

**Inclination towards digital piracy:** A multi-item five-point Likert scale with the following indication was used: (1) strongly disagree ..... (5) strongly agree. A lower value on this scale represents an ethical inclination and vice versa. The three-statement frame, which was a part of this scale, included inclination towards using unauthorized/unlicensed copies of commercial software, music albums, etc. Co-efficient alpha was used to assess the internal consistency of the scale and Cronbach alpha was reported as .678 which deemed the scale as reliable.

**Inclination towards unethical use of social network:** A multi-item five point Likert scale with the following indication was used: (1) strongly disagree ..... (5) strongly agree. A lower value on this scale represents an ethical inclination and vice versa. The five-statement frame, which was a part of this scale, included inclination towards faking one's identity over the internet, misusing someone's

personal information on social networks, etc. Co-efficient alpha was used to assess the internal consistency of the scale and Cronbach alpha was reported as .543, which deemed the scale as reliable.

**Self concept clarity:** The scale used in this study was formulated by Campbell et al. The included study (Self Concept Clarity-Campbell et al) contained an initial pool of 40 items designed to measure clarity. Some of the items assessed the perceived certainty, temporal stability, and internal consistency of self-beliefs, whereas others tapped fairly direct ramifications of SCC, such as decisiveness and clearly articulated goals. The initial 40-item pool was generated both by culling (and sometimes revising) items from published scales measuring related constructs (e.g., Rosenbergs, 1965) and by constructing new items. The same twelve questions were used for the purpose of this study. The co-efficient alpha was reported as .860 for the original study. When used to assess the internal consistency of the scale for the purpose of this study, the Cronbach alpha was reported as .694, which deemed the scale as reliable.

### *Sample*

A structured questionnaire was used in the data collection. The questionnaire consisted of statements that were designed on the Likert scale to measure (1) inclination towards plagiarism; (2) inclination towards digital piracy; and (3) inclination towards unethical use of social network. The questionnaire also included descriptive measures including gender and educational

background. Data for the study were gathered from Solan and Shimla districts in Himachal Pradesh over a period of two months (August and September, 2011). Convenience sampling was used as the sampling technique. The resultant sample of 123 consisted of male respondents (55%) and female respondents (45%). About 55% were students from technical background (i.e. Engineering) and 45% from non-technical streams (such as Commerce, Pharmacy and Physics). The mean age of the sample group was 19 years.

### **RESULTS**

The study explored the youth disposition towards ethical behaviour related to plagiarism, digital piracy and unethical use of social networks. The findings from the study revealed that youth have a moderate inclination (as the values are bordering the mid value-3) towards unethical practices (see Fig.1). The mean value for the inclination towards plagiarism is 2.97 (SD = .60), while for the inclination towards digital piracy is 2.91 (SD = .98), and that for the inclination towards unethical use of social networks is 2.04 (SD = .64).

The study also investigated gender difference and the difference in the academic background in relation to inclination towards plagiarism. An independent sample *t* test was performed to compare the mean score (inclination towards plagiarism) for the male students ( $M = 3.07$ ,  $SD = .60$ ), with that of the female students ( $M = 2.84$ ,  $SD = .57$ ). The test was found to be statistically significant, whereby  $t(121) = 2.131$ ,  $p$

= .035. Thus,  $H_1(a)$  stands supported. Similarly, comparing the mean score for the technical students ( $M = 3.18, SD = .51$ ) with that of the non-technical students ( $M = 2.70, SD = .60$ ), the difference was found to be statistically significant, with  $t(121) = 4.76, p = .000$ . Thus,  $H_1(b)$  also stands supported.

Next, the study investigated gender difference and the difference in academic background on inclination towards digital piracy. An independent sample t test was performed to compare the mean score (inclination towards digital piracy) for the male students ( $M = 2.56, SD = .91$ ) with that of the female students ( $M = 3.30, SD = .90$ ). The test was found to be statistically significant, with  $t(121) = -4.70, p = .000$ . Thus,  $H_2(a)$  stands supported. Similarly, the comparison between the mean score for the technical students ( $M = 2.46, SD = .83$ ) with that of the non-technical students ( $M = 3.46, SD = .87$ ) revealed a statistically significant difference with  $t(121) = -6.4, p = .000$ . Hence,  $H_2(b)$  also stands supported.

The study also investigated gender difference and the difference in the academic background on the inclination towards unethical use of social networks. An independent sample t test was performed to compare the mean score (inclination towards unethical use of social networks) for the male students ( $M = 2.17, SD = .66$ ) with that of the female students ( $M = 1.89, SD = .59$ ). The test was found to be statistically significant, with  $t(121) = 2.37, p = .019$ . Thus,  $H_3(a)$  stands supported. Similarly, comparing the mean score for the technical students ( $M = 2.13, SD = .63$ ) with that for the non-technical students ( $M = 1.94, SD = .64$ ) showed a statistically significant difference with  $t(121) = 1.612, p = .110$ . Therefore,  $H_3(b)$  does not find support in this study.

In addition to exploring the inclinations towards unethical practices, vis-à-vis ICT, the paper also sought to measure the self concept clarity of the representative sample of youth population. The study

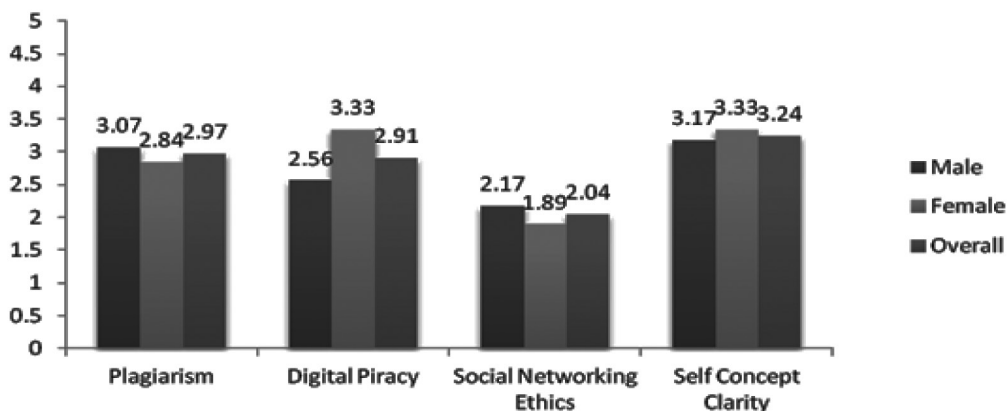


Fig. 1: Gender-Wise Pattern on Key Construct

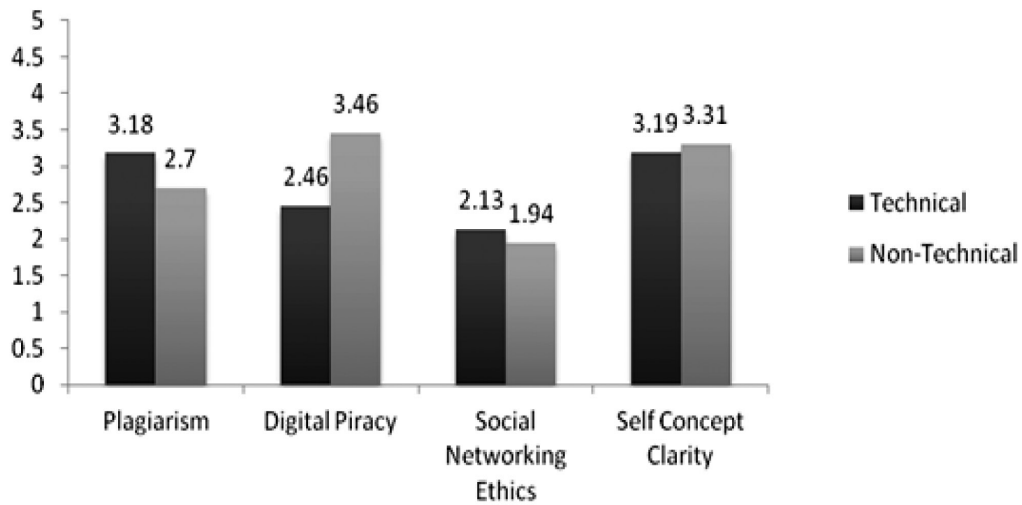


Fig.2: Education-Wise Pattern on Key Constructs

also investigated the association of self concept clarity with the inclinations towards unethical practices, as has been specified in  $H_4(a)$ ,  $H_4(b)$ , and  $H_4(c)$ .

A simple regression was carried to investigate these hypotheses. Self concept clarity significantly predicted the inclination towards plagiarism score,  $\beta = -0.21$ ,  $t(121) = 11.05$ ,  $p = 0.000$ . Similarly, self concept clarity also explained a moderate proportion of variance in the inclination towards plagiarism score,  $R^2 = 0.04$ ,  $F(1,121) = 5.77$ ,  $p = 0.02$ . Hence,  $H_4(a)$  stands supported, i.e., the higher the self concept clarity, lesser the inclination towards plagiarism is.

Similarly, the simple regression was also used to evaluate  $H_4(b)$ . Nonetheless, this test did not find statistical significance with  $\beta = 0.059$ ,  $t(121) = 0.654$ ,  $p = 0.514$ . Hence,  $H_4(b)$  did not find support in this empirical study.

The regression analysis was also used to evaluate  $H_4(c)$ . It was seen that self concept

clarity significantly predicted the inclination towards unethical use of social networks score,  $\beta = -0.30$ ,  $t(121) = -2.60$ ,  $p = 0.010$ .

Self concept clarity also explained a moderate proportion of the variance in the inclination towards unethical use of social networks score,  $R^2 = 0.05$ ,  $F(1,121) = 6.786$ ,  $p = 0.010$ . Hence,  $H_4(c)$  stands supported. Therefore, it could be stated that the higher self concept clarity, the lesser the inclination towards unethical use of social networks will be.

## CONCLUSION

The findings in this study are consistent with the belief that these easily available user friendly technologies, which the present day youth are deeply familiar with, also lead to misuse or unethical practices. In this study, the representative sample of youth was found to have a significant inclination to unethical use these technologies. It was also

found that the greatest inclination is towards plagiarism, and this was followed by digital piracy and social networking ethics.

Further, the study also explored whether gender and technical competence impacts inclination towards unethical practice. The findings suggest that gender does affect these inclinations as the male respondents were found to have a higher inclination towards unethical practices than the female respondents. Similarly, the respondents with technical background or training had a greater inclination towards unethical practices. These findings suggest that apart from imparting technical education and learning, there is a need to greatly sensitize the youth on the negative outcomes of their unethical behaviour. In view of the fact that gender differences persist with such inclinations, the programmes may be differently targeted at young male and female technocrats.

The study has made a pioneering attempt to assess the association of individual's self concept clarity with the inclinations towards unethical practices. The study found that self concept clarity does impact inclination towards plagiarism, and unethical use of social networks. Once again, it has highlighted the need to provide a holistic education and environment to youth.

The findings from the study have implications on the following: 1) academicians; 2) law enforcement agencies; and 3) technology developers. Firstly, as has been suggested earlier on, holistic learning and training must be provided to the present day youth. Curriculum design and teaching pedagogy need a radical change to align well

with the need of the hour to promote ethical behaviour and practices among them.

Secondly, better or greater awareness of the state laws regarding misuse of such technologies needs to be created among the youth. There is a need to undertake promotional campaigns to appraise the youth on the negative legal outcomes with the misuse of such technologies.

In addition, future technologies should inherently have designs which are detrimental to their misuse. For example, Microsoft ensures that their copyrighted operating system, Microsoft Windows, is not pirated by distributing a one-time key to unlock the software with every purchase. Further, it performs a check on the authenticity of a user's operating system whenever a user visits the Microsoft's website, effectively deactivating any unauthorized/unlicensed copies of the same, if found. Another example is the use of digital watermarks/signatures in any kind of digital media, which proves the ownership of the author of that particular media over its contents and authenticity.

Although the study suffers from the limitation of being geographically concentrated and focusing on limited aspects, it is expected that the study may have provided meaningful insights on issues related with unethical practices and youth disposition.

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