# Students' awareness and perceptions regarding copyright infringement: A study in a public university in Bangladesh

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#### Abstract

**Purpose:** The main purpose of this study was to investigate the extent to which students of the Dhaka University are aware of the existing copyright law and its infringement.

Methodology: Students from different departments of the Dhaka University were the sample population for this study. An online survey was used for collecting data and a questionnaire was designed using Google Forms including both open and close ended questions which was distributed to the students using different social media platforms. The collected data were analyzed using SPSS software and Microsoft Excel. Chi-square and Mann-Whitney U tests were performed to analyze students' awareness regarding copyright issues. Findings: A total of 260 students participated in the survey. The study showed that 82.6% students are aware of copyright and 80.2% are aware of copyright infringement. 61.2% students violated copyright once or more by plagiarism, photocopy and other means particularly because of the high price and unavailability of the original materials. Most of the students opined that developing citing and referencing practice among students and introducing copyright in university curricula can help in reducing copyright infringement.

Research limitations: The study was limited to only one public university of Bangladesh because of time limitation and COVID-19 outbreak.

**Practical implications:** The present study can create greater awareness and respect for copyright law in the university as well as in the whole country.

Originality/value: This research is one of the first attempts to study Dhaka University students' awareness and perceptions regarding copyright infringement and can act as the building block for future research on this topic.

**Keywords:** Copyright law, copyright infringement, university students, University of Dhaka, Bangladesh.

## 1. Background of the study

Technological advancements have brought about revolutionary changes in every sector of the world including education. Information has now become easily available to the users with the assistance of innumerable technologies. Nowadays, users are accessing information in multidimensional ways. Hence, misuse of information is increasing at an alarming rate which is considered as a threat to the original creative work. This led to the introduction of "Copyright" and "Intellectual Property Rights (IPR)" as copyright is, without any doubt, the most important link connecting creativity and availability of information and knowledge-based items (Bosumprah, 2009). Different scholars around the world have defined copyright from different perspectives. Copyright, according to Fishman (1996), is a legislative tool that gives the author of a piece of artwork or literature, or a work that transmits information or ideas, the ability to regulate how the work is used. In general, Copyright is a highly valued intellectual property that grants the creator of an artistic activity, the exclusive right to reproduce it in any form. The purpose of copyright is to shield the individual's unique labor in major intellectual productions. Originators of literary, scenic, lyrical, and creative works, as well as makers of motion films and audiovisual works, are granted copyright under the law (Ahmadi & Sonkar, 2015). In other words, copyright can be viewed as a set of conditions possessed by the creator of an intellectual and artistic work, and it is a part of a comprehensive body of legislation known as Intellectual Property (IP) that safeguards the writers' moral and practical privileges (Fromer, 2014). Copyright infringement happens when the copyrighted materials are used in such a way that disrupts the original owner's exclusive rights regarding his/her creations. Infringement can take place in the form of plagiarism, piracy, photocopy, duplication of web pages and so on (Isiakpona, 2012).

To protect the intellectual rights of the original authors, World Intellectual Property Organization (WIPO) is working to advance through global collaboration the creation, use and security of works of the human spirit for the monetary, social and artistic progress of all humankind (WIPO, 2004). Similar to other legitimately protected merchandises, copyright and IPR particularly has become vastly controlled through regulations, pacts, and conventions all over the world. In Bangladesh, similar to other countries, copyright is applicable to whole or part of any original literary, dramatic, musical and artistic works, cinematograph films, and sound recording (Alam et al., 2000).

## 1.1 Copyright term for various kinds of works

According to Copyright Act, 2000 of Bangladesh, the terms for copyright for different kinds of works are listed here-

• For any literary, dramatic, musical, or artistic work (except a photograph) copyright is valid for author's lifetime plus sixty years after the author's death. For collaborative authorship, it is valid for next sixty years after the author who died last.

- Copyright for sound recordings and cinematograph film last for sixty years after the year in which they are released.
- For a computer program, copyright lasts for sixty years after the year in which the software is issued.
- Copyright on a photograph seems to last for sixty years after the year in which it is posted.
- When the Government is the original owner in a Govt. work, the copyright would last for sixty years after the year when the work is produced.

#### 2. Literature review

#### 2.1 Students awareness related to different copyright issues

There is a huge corpus of contemporary research on various issues related to copyright such as fair use, intellectual property and copyright laws of different countries. For example, Fiesler et al. (2016) studied people's attitudes regarding copyright terms of different web platforms, Ab Rahim (2020) studied fair use and copyright, Bansi & Reddy (2015) discussed intellectual property registration, Mingaleva & Mirskikh (2013) identified the problems of legal regulation and protection of intellectual property, Bhat (2018) gave an outline of India's diverse laws governing invention and intellectual property protection, Adruce (2004) conducted a study which explores the span of copyright rights in the United States from the viewpoint of educational scholars, Nemlioglu (2019) demonstrated the definition of intellectual property laws and compared the intellectual property rights in the United Kingdom and Turkey.

However, very few researchers have focused on the awareness and perceptions of students regarding copyright infringement, particularly considering university situations in developing nations. In a study, Ong et al. (2012) attempted to determine if undergraduate students are informed of intellectual property rights. A questionnaire measured on a five Likert scale was designed to gain knowledge and understanding about students' perceptions and implications of IPR at LimKokWing University and Multimedia University. The findings showed that more details can be made accessible on social media sites such as Facebook, personal pages, and chat rooms, so that the students can be benefitted from a user-friendly guideline regarding the application of IP, along with knowledge on IPR in the community and on the university's website and intranet.

Isiakpona (2012) aimed to ascertain the degree to which undergraduate students at the University of Ibadan are conscious of copyright law and infringement of copyright. Stratified Random Sampling was used to select 200 undergraduate students for the survey. The study came up with the finding that the majority of undergraduates violate copyright laws and regulations almost always by photocopying, and the leading causes for these violations are the high cost of accessing, the inadequacy of printable educational content and the increasing expenditure of buying printed academic content for several courses.

Padil et al. (2020) explored whether students' awareness of copyright law, fair use doctrine awareness, and fair dealing perception have an impact on their perception of copyright when they are exposed to it. As per the survey findings, students' knowledge of copyright is influenced by their understanding of equitable practice and copyright law.

At the University of Ilorin in Nigeria, a study was carried out by Tella & Oyeyemi (2017) to observe the undergraduate students' understanding of copyright violations. A survey was conducted in a descriptive manner with a sample consisted of 372 undergraduate students drawn at random from 12 universities. The outcomes showed copying material from the internet without the owner's consent is the most common way for undergraduate students to encroach on intellectual property. The rising cost of reference books, shortages of substances, uncertainty of receiving good grades, lack of literacy, and overall curricula played roles in this sense.

In a recent study, Pangilinan et al. (2020) investigated the awareness level of the students of City College of Angeles about copyright and copyright violation. The study included a total of 165 undergraduate respondents from various university coursework. It was found that copyright awareness of the students is affected by less awareness regarding plagiarism and lack of knowledge regarding proper citation techniques.

### 2.2 Awareness on copyright violation by students and teachers

Some researchers focused on the awareness on copyright violation by both the students and teachers as well as library professionals. For example, Ahmadi & Sonkar (2015) examined the understanding of plagiarism and legitimate usage within 180 research scholars of Babasaheb Bhimrao Ambedkar University. Findings showed that while the majority of researchers are mindful of copyright, others are oblivious of copyright violations. In an empirical study, Korletey & Tettey (2015) observed the phenomenon of copyright awareness of 500 students and lecturers of Kwame Nkrumah University of Science and Technology and found that copyright consciousness is not as high as it should be. In a study, Valentino (2015) aimed to identify the perception and awareness of university teachers of Canada regarding copyright. The findings of the study showed that majority of the teachers are conscious about the copyright policies of their institution where some of them do not know much about it. In a comprehensive study, Olaka (2010) highlighted the perception of copyright policies and approaches for overcoming copyright concerns among Kenya's institutional library professionals. Data were collected from 167 university librarians through a questionnaire. Academic librarians were observed to have only a fundamental understanding of copyright conflicts.

# 2.3 Copyright law and awareness: Bangladesh perspective

In Bangladesh, Shiddiquie & Hyder (2018) explored copyright law's scope on issues related to academic libraries of Bangladesh. They consulted both primary and secondary data for the study and found that copyright infringement as well as insufficient provisions of

copyright application is a common scenario in Bangladesh. Rahman (2006) comprehended the main provisions and protections specified in the copyright laws. The author also recognized probable problems in perspective of Bangladesh and suggested some possible solutions against them. In an analytical study, Alam et al. (2000) discussed about the current copyright status of Bangladesh in the light of The Copyright Act, 2000 (CA). They identified its pitfalls and proposed some solutions. Hossain (2020) investigated the copyright literacy of the LIS professionals; Hosen (2017) undertook a study to ascertain Bangladesh's copyright credentials by providing an outline of the Copyright Act 2000 and Hossain (2012) concentrated on copyright rights in Bangladesh, including how to obtain copyright and sustain it, how existing regulations guarantee copyright protection, and what the overall scenario is in practice in Bangladesh.

But so far, no studies have been conducted in this country to investigate university students' awareness on this topic. In view of this, the present study aimed to investigate Dhaka University students' awareness and perceptions regarding copyright violation.

## 3. Objective and research questions

The current study was designed to gather responses from the students of Dhaka University concerning their awareness and perceptions regarding copyright and copyright infringement. To address this objective, the study came up with few research questions:

- RQ1. Are the students aware of copyright law and its infringement?
- RQ2. What is their level of awareness regarding copyright issues?
- RQ3. How did they infringe on copyright and what was the reason behind this infringement?
- RQ4. What are their perceptions regarding the steps to be taken to reduce copyright infringement?
- RQ5. Are there any significant differences among the students in terms of their gender, academic level and/or age in regard to their level of awareness regarding copyright issues?

## 4. Methodology

An online survey was conducted to reach a wide number of students from different departments of Dhaka University, the top-ranked university of Bangladesh (Unirank, 2021) as this method is best suited to reach maximum number of students in this pandemic time.

## 4.1 Questionnaire development

A structured questionnaire was used for collecting data from the students which was designed using Google forms including both open and close ended questions. The

questionnaire was pilot-tested before starting the original survey. Five-point Likert scale questions were included to gather responses from the students. Most of the questions were self-developed by the investigators, very few of them were taken from prior studies (Table 1).

Table 1: Survey items used in the questionnaire

No.	Question	Source
	Demographic and academic information	Self-developed
1	Are you familiar with the term 'Copyright'?	Adapted from
		Atikuzzaman & Islam
		(2020)
2	Where did you first learn about Copyright?	Self-developed
3	In which level of education did you first know about	Adapted from
	Copyright?	Nankuiharrison (2015)
4	Are you aware of Copyright Law?	Self-developed
5	How frequently do you check the Copyright terms and policies before reproducing any document?	Self-developed
6	Does your department/ institute provide any introductory course/ program on Copyright?	Self-developed
7	Did you read the Copyright Act of Bangladesh?	Self-developed
8	Why didn't you read the Copyright Act of Bangladesh?	Self-developed
	(You may choose multiple options)	
9	Please rate your frequency of performing the following activities (Never=1 to 5=Always)	Self-developed
10	Are you aware of Copyright violation/infringement?	Self-developed
11	Have you ever violated any Copyright law (e.g., photocopying a book, copying others writing without citation, pirating video, etc.)?	Self-developed
12	Which of the following activities you have done before on copyright violation? (You may choose multiple options)	Adapted from Tella & Oyeyemi (2017)
13	Why did you infringe/violate copyright? (You may choose multiple options)	Adapted from Nankuiharrison (2015)
14	What was your purpose for violating copyright?	Self-developed
15	Have you ever been challenged for violating copyright?	Self-developed
16	By whom have you been challenged for copyright violation?	Self-developed
17	Please rate your opinion on the following statements regarding the steps to be taken to reduce copyright infringement/violation (5=Strongly agree to Strongly disagree=1)	Adapted from Hossain (2012)

The questionnaire was divided into three sections. Through the first section, demographic and academic data of the students were collected; the second section included questions on students' awareness regarding copyright; and the third part of the questionnaire contained questions about copyright infringement and students' perceptions regarding the steps to be taken to reduce copyright infringement.

#### 4.2 Study population

The target population were the students from various departments of the Dhaka University. Presently, this university consists of more than 37 thousand regular students (Dhaka University, 2021). The questionnaire was distributed to the students using different social media platforms, such as Facebook, Messenger, WhatsApp and Gmail.

#### 4.3 Data collection

The data collection process took a period of more than one month, from first week of May to second week of June, 2021. Only the students using social media at that time were asked to respond to the survey. The link to the questionnaire was posted on the wall of different Facebook and Messenger groups of Dhaka University students, some students received the link individually via Messenger, WhatsApp and Gmail. Data obtained from this survey were analyzed using SPSS and MS Excel. Random sampling technique was adopted to collect data. For addressing our fifth research question, we have used non-parametric tests to see the differences between demographic information and students' level of awareness regarding copyright issues.

## 5. Results of the study

The findings of the study are reported below according to the research questions:

## 5.1 Academic and demographic information

In total, 260 students participated in the survey. Table 2 indicates that students from the Faculty of Arts had the greatest percentage (147, 56.5%), while students from the Faculty of Law and Faculty of Education had the lowest percentage (1, 0.4%) of participants. With a proportion of 16.9%, Business faculty had the second greatest number of participants. Practically, the study covered the major faculties of the university.

The number of male participants (58.5%) was higher than the number of female participants (41.5%). Maximum students (115, 44.2%) were between the ages of 20–22, while the least number of students (8, 3.1%) were between the ages of 17–19. 172 (66.2%) participants were undergraduate students, whereas 88 (33.8%) were graduate students (Table 3).

Table 2: Respondents from different faculties and institutes [N=260]

Faculty Name	Frequency	%
Faculty of Arts	147	56.5
Faculty of Sciences	12	4.6
Faculty of Business Studies	44	16.9
Faculty of Social Sciences	26	10.0
Faculty of Earth and Environment	13	5.0
Faculty of Biological Sciences	6	2.3
Faculty of Engineering and Technology	3	1.2
Faculty of Education	1	.4
Faculty of Law	1	.4
Different Institutes	7	2.7
Total	260	100.0

Table 3: Students' gender, age group and education level [N=260]

Variables	Category	Frequency	%
	Male	152	58.5
Gender	Female	108	41.5
	Total	260	100.0
	17-19	8	3.1
	20-22	115	44.2
Age group	23-25	109	41.9
	26 or more	28	10.8
	Total	260	100.0
	Undergraduate	172	66.2
Education level	Graduate	88	33.8
	Total	260	100.0

# 5.2 Students' familiarity and knowledge of copyright

Figure 1 demonstrates that the maximum number of students (137) are familiar with copyright, though a few students (2) have never heard of it before. 93 respondents had good knowledge about copyright. Only 1 participant heard of copyright before but is unaware of the idea, and 27 students heard of it but are uncertain about the concept.

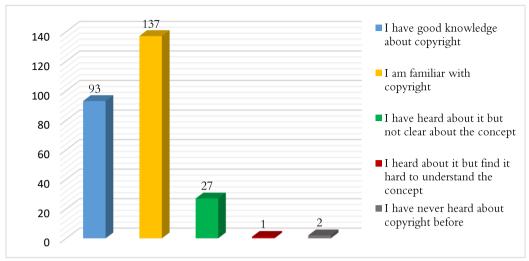


Figure 1: Students' familiarity with copyright [N=260]

We excluded the 2 students who had never heard of copyright before from next part of the survey. Table 4 shows that out of the remaining 258 students, most of them (75, 29.1%) learned about copyright from their university education. The second highest number of students (73, 28.3%) learned about it through self-study.

Table 4: First learning about copyright [N=258]

First learning about copyright	Frequency	%
University curriculum	75	29.1
Seminar/Conference/Workshop	5	1.9
From library professionals	5	1.9
Social media	52	20.2
Newspaper	26	10.1
Self-study	73	28.3
School curriculum	12	4.7
College curriculum	8	3.1
Others	2	.8
Total	258	100.0

Majority of the students (88, 34.1%) knew about copyright from secondary level of their education, whereas the lowest number (11, 4.3%) knew about it from their primary level (Table 5).

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Education level	Frequency	%			
Primary	11	4.3			
Secondary	88	34.1			
Higher secondary	82	31.8			
University	77	29.8			
Total	258	100.0			

Table 5: Education level of first knowing about copyright [N=258]

#### 5.3 Level of awareness regarding copyright

Table 6 demonstrates that 46.9% of male students (121), and 35.7% of female students (92), are aware of copyright law. Contrary, 11.6% male (30) and 5.8% (15) female students were not aware of the act.

		17.0	U	-	-	
Aware of Copyright	Male	%	Female	%	Total	%
Yes	121	46.9%	92	35.7%	213	82.6%
No	30	11.6%	15	5.8%	45	17.4%
Total	151	58.5%	107	41.5%	258	100%

Table 6: Aware of copyright law and gender [N=258]

Figure 2 shows that highest 29.5% (76) students sometimes verified the copyright terms and policies, whereas 12% (31) never checked the terms before reproducing any document. 14.3% (37) of the remaining students frequently, 17.4% (45) of respondents always, and 26.7% (69) students rarely checked the copyright terms and conditions before reproducing any document.

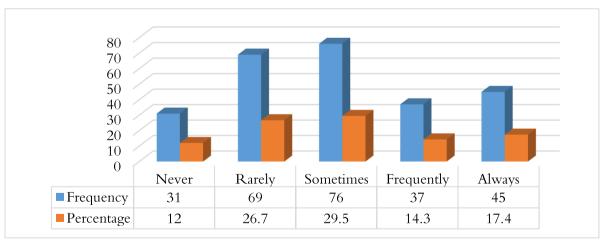


Figure 2: Frequency of checking copyright terms and policies [N=258]

Among the participants, 43.0% (111) students responded that their departments provide copyright courses whereas 41.1% (106) students answered negatively. Contrarily, 41 (15.9%) students had no idea about it (Table 7).

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Copyright related course	Frequency	%
Yes	111	43.0
No	106	41.1
I don't know	41	15.9
Total	258	100.0

Table 7: Copyright course by department [N=258]

We asked the students whether they have read the Copyright Act of Bangladesh. Figure 3 shows that out of 258 students, 143 (55 %) have read the act and 115 (45%) have not.

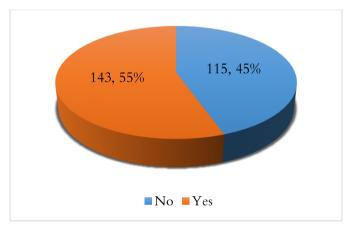


Figure 3: Students who read copyright act of Bangladesh [N=258]

Among 115 students who haven't read the Copyright Act of Bangladesh, most of them (36.5%, 42) responded that the Act did not concern them and so they ignored it (Table 8).

Table 0. Iceasons for not reading the fiet [14, 115]								
Reasons	Yes	%	No	%	Total	Total %		
I had no interest in reading it	32	27.8%	83	72.2%	115	100%		
I had no idea whether the Copyright Act existed	21	18.3%	94	81.7%	115	100%		
I had no access to the Act	10	8.7%	105	91.3%	115	100%		
I had no time to read it	12	10.4%	103	89.6%	115	100%		
I ignored it because it did not concern me	42	36.5%	73	63.5%	115	100%		
There was no motivation to read it	38	33.0%	77	67.0%	115	100%		
Others	3	2.6%	112	97.4%	115	100%		

Table 8: Reasons for not reading the Act [N=115]

In order to determine students' level of awareness regarding copyright, we put eight statements and asked them to rate their frequency of performing those activities. The findings of this question are shown in Table 9 which indicates that on average the students responded positively against all the statements. As it was a 5-point Likert Scale question (average mean 2.5), all the students showed favorable awareness regarding copyright issues.

Table 9: Students awareness regarding copyright [N=258]

Statements	Mean	Std. Deviation
I use citation/ reference when adopting others writings	4.15	1.191
I check copyright policies before collecting course materials from	3.00	1.428
internet		
I check copyright policies when adopting any original musical work	3.00	1.532
I take permission from author before translating his/her original writing		1.591
I follow copyright before copying slides from websites (e.g., SlideShare)		1.436
I follow copyright policies before copying computer codes from		1.489
internet		
I take permission from author/publisher before photocopying textbook	2.64	1.558
I check copyright policies before downloading any image from internet	2.55	1.378

## 5.4 Awareness of copyright infringement

Table 10 shows that 35.3% female (91) and 45.0% male (116) students are concerned of copyright infringement where 13.6% male (35) and 6.2% female (16) students are not aware of infringement.

Table 10: Awareness of copyright infringement [N=258]

Aware of infringement	Male	Female	Total
Yes	116 (45.0%)	91 (35.3%)	207 (80.2%)
No	35 (13.6%)	16 (6.2%)	51 (19.8%)
Total	151 (58.5%)	107 (41.5%)	258 (100.0%)

Majority of students (38.8%, 100) have never infringed any copyright law, while the remaining 61.2% have violated the law once or more (Table 11).

Table 11: Infringement of copyright law [N=258]

Infringement of copyright	Frequency	%
Never	100	38.8
Once	14	5.4
A few times (2–3 times)	78	30.2
Several times (4–5 times)	24	9.3
Many times (more than 5)	42	16.3
Total	258	100.0

#### 5.5 Patterns of and reasons behind copyright infringement

Of the 158 students who infringed on copyright for one or more times, most of them (56.3%, 89) violated copyright by acquiring materials from the internet without using any citation or references. The second most prevalent practice was photocopying whole books without the author's or publisher's consent (54.4%, 86) (Table 12). Again, majority of the students (62.0%, 98) violated copyright for high cost of original materials where the second highest students (97, 61.4%) violated it for the unavailability of the original material (Table 13).

Table 12: Pattern/kind of copyright infringement [N=158]

Pattern of infringement		%	No	%	Total	Total %
Photocopying a whole book without permission	86	54.4%	72	45.6%	158	100%
Collecting materials from internet without reference	89	56.3%	69	43.7%	158	100%
Copying others writings without citation	41	25.9%	117	74.1%	158	100%
Copying ppt slides from internet	69	43.7%	89	56.3%	158	100%
Translating others works without permission	30	19.0%	128	81.0%	158	100%
Pirating a CD/ video	27	17.1%	131	82.9%	158	100%
Others	2	1.3%	156	98.7%	158	100%

Table 13: Reasons for copyright infringement [N=158]

Reasons for infringement	Yes	%	No	%	Total	Total %
High price of original material	98	62.0%	60	38.0%	158	100%
Lack of time to read materials in the library	66	41.8%	92	58.2%	158	100%
Unavailability of the original material	97	61.4%	61	38.6%	158	100%
I needed only a portion of the material	93	58.9%	65	41.1%	158	100%
I was influenced by my classmates	32	20.3%	126	79.7%	158	100%
Others	2	1.3%	156	98.7%	158	100%

Table 14 shows that 60.1% students infringed the copyright law for academic purposes. Only 1 (0.6%) student violated copyright for all the given three purposes.

Table 14: Purpose of copyright infringement [N=158]

Purpose	Frequency	%
Personal use	57	36.1
Research purpose	5	3.2
Academic purpose	95	60.1
All of the above	1	.6
Total	158	100.0

#### 5.6 Steps to be taken to reduce copyright infringement

Table 15 shows that the vast majority of respondents (Mean 4.52, Rank 1) feel that citation and reference practices should be established among students to minimize copyright infringement. Second (Mean 4.40, Rank 2) and third highest number (Mean 4.38, Rank 3) of students strongly agreed that introducing copyright courses in university curriculum and arranging seminars and workshops on copyright awareness can reduce violation of copyright.

Table 15: Steps to be taken to reduce copyright infringement [N=258]

Perceptions	1	2	3	4	5	Mean	Rank
Citing and referencing practice should be developed among the students	2	1	15	83	157	4.52	1
Courses on copyright should be introduced in university curriculum	4	0	24	90	140	4.40	2
Seminars and workshops should be arranged to create awareness	4	2	13	113	126	4.38	3
Copyright law should be honored by the students	4	2	16	111	125	4.36	4
Existing copyright law should be implemented properly	4	5	18	100	131	4.35	5
Legal actions should be taken against infringements	6	2	21	121	108	4.25	6
Anti-piracy force should be established against book piracy at photocopy shops	8	10	45	116	79	3.96	7
Immediate punishment should be ensured for the infringer	5	14	52	107	80	3.94	8

Note: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree

# 5.7 Comparison of students' copyright awareness by their gender, education level and age group

We used Mann-Whitney U test and Kruskal-Wallis tests to understand students awareness on copyright issues where statements are measured in an ordinal scale and vary according to gender, education level and age (where, dependent variable would be "Awareness on copyright" and independent variables would be: "gender" containing two groups "male" and "female"; "education level" containing two groups "undergraduate" and "graduate"; and "age" containing four groups "17-19", "20-22", "23-25" and "26 or more").

Table 16 reveals the Mann-Whitney U test results for differences between male and female students' awareness on copyright. The results showed that there were significant differences in all the cases except one case "I take permission from author/publisher before photocopying textbook".

Table 16: Copyright awareness based on students' gender [N=258]

Awareness on copyright	Gender	N	Mean Rank	Sum of Ranks	Mann- Whitney U	Wilcoxon W	Z	Asymp. Sig. (2- tailed)
I take permission from	Male	151	123.19	18601.50				
author/publisher before photocopying textbook	Female	107	138.41	14809.50	7125.500	18601.500	-1.673	.094
I take permission from	Male	151	120.41	18182.00				
author before translating his/her writing	Female	107	142.33	15229.00	6706.000	18182.000	-2.390	.017*
I use citation/ reference	Male	151	118.51	17895.50				
when adopting others writings	Female	107	145.00	15515.50	6419.500	17895.500	-3.135	.002*
I check for copyright	Male	151	116.17	17541.50				
before collecting materials from internet	Female	107	148.31	15869.50	6065.500	17541.500	-3.486	*000
I check copyright before	Male	151	118.71	17924.50				
downloading any image from internet	Female	107	144.73	15486.50	6448.500	17924.500	-2.837	.005*
I follow copyright before	Male	151	118.79	17937.50				
copying slides from websites (e.g., SlideShare)	Female	107	144.61	15473.50	6461.500	17937.500	-2.798	.005*
I follow copyright before	Male	151	116.27	17557.00				
copying computer codes from internet	Female	107	148.17	15854.00	6081.000	17557.000	-3.472	.001*
I check copyright policies	Male	151	111.84	16888.00				
when adopting any original musical work	Female	107	154.42	16523.00	5412.000	16888.000	-4.632	.000*

Note: \*significant at p < 0.05.

Table 17 reveals the Mann-Whitney U test results for differences between undergraduate and graduate students' awareness on copyright. The results showed that there were no significant differences among the students' awareness except in two cases "I take permission from author/publisher before photocopying textbook" and "I take permission from author before translating his/her original writing".

Table 17: Copyright awareness based on students' education level [N=258]

Awareness on copyright	Education level	N	Mean Rank	Sum of Ranks	Mann- Whitney U	Wilcoxon W	Z	Asymp. Sig. (2- tailed)
I take permission from	Undergraduate	171	136.79	23391.00				
author/pub. before photocopying textbook	Graduate	87	115.17	10020.00	6192.000	10020.000	-2.281	.023*
I take permission from	Undergraduate	171	137.39	23493.00				
author before translating his/her original writing	Graduate	87	114.00	9918.00	6090.000	9918.000	-2.447	.014*
I use citation/ reference	Undergraduate	171	128.06	21898.50				
when adopting others writings	Graduate	87	132.33	11512.50	7192.500	21898.500	484	.628
I check copyright	Undergraduate	171	132.35	22632.50				
policies before collecting materials from internet	Graduate	87	123.89	10778.50	6950.500	10778.500	881	.378
I check copyright	Undergraduate	171	131.45	22478.50				
policies before downloading any image from internet	Graduate	87	125.66	10932.50	7104.500	10932.500	606	.545
I follow copyright	Undergraduate	171	130.54	22321.50				
before copying slides from websites (e.g., SlideShare)	Graduate	87		11089.50	7261.500	11089.500	319	.750
I follow copyright	Undergraduate	171	132.51	22660.00				
policies before copying computer codes from	Graduate	87	123.57	10751.00	6923.000	10751.000	934	.350
internet	Undergraduate	171	135 14	23109.50				
I check copyright policies when adopting	Ondergraduate	1/1	133.14	43109.30				
any original musical work	Graduate	87	118.41	10301.50	6473.500	10301.500	-1.747	.081

Note: \*significant at p < 0.05.

We performed a separate Kruskal-Wallis test to observe the differences among the students of different age groups regarding their awareness on copyright. The results showed that there were no significant differences among the students' awareness on copyright issues based on their age groups (Table 18).

Table 18: Copyright awareness based on students' age groups [N=258]

Statements	Chi- square	df	Asymp. Sig.
I take permission from author/publisher before photocopying textbook	4.190	3	.242
I take permission from author before translating his/her original writing	3.230	3	.357
I use citation/ reference when adopting others writings	4.927	3	.177
I check copyright policies before collecting course materials from internet	3.714	3	.294
I check copyright policies before downloading any image from internet	.927	3	.819
I follow copyright policies before copying slides from websites (e.g., SlideShare)	2.807	3	.422
I follow copyright policies before copying computer codes from internet	3.089	3	.378
I check copyright policies when adopting any original musical work	6.868	3	.076

Note: \*significant at p < 0.05.

#### 6. Major findings and discussion

The key objective of this study is to find out how well-informed Dhaka University students are about copyright laws. From our survey, we discovered some significant insights regarding the actual scenario of copyright awareness and infringement by the students.

In RQ1, we attempted to determine whether or not the students are aware of copyright law and infringement. We discovered that 82.6% of respondents are aware of copyright law and have a viewpoint about it. It has been noted that female students are less informed about copyright law than male students. We also observed that 80.2% of the participants are aware of copyright infringement. These findings are consistent with Isiakpona (2012) where 85.0% of the respondents in his survey were knowledgeable of copyright law but 15.0% were clueless.

Under RQ2, we found that a considerable majority of the participants have a high degree of awareness about copyright issues. Dhaka University students have been practicing the pattern of checking the terms and conditions of copyrighted works on a regular basis. The university's academic authority has added copyright courses in multiple disciplines too. On top of that, 55% of the participants have read the Copyright Act of Bangladesh which might have smoothen their concept regarding copyright issues. The findings support the study of Tella & Oyeyemi (2017), where they showed that in the University of Ilorin, Nigeria, 171 (47.2%) of undergraduate students are aware of copyright infringement to some level, 74 (20.4%) are aware to a lesser amount, and 65 (18.0%) are ignorant of copyright infringement to little or no extent. Even then, 52 (14.4 %) of the respondents claimed that they are very conscious of infringement of copyright.

In RQ3, we found that the respondents characterized their pattern of breaching copyright law by photocopying books, collecting materials from web and using them without acknowledging the copyright holder and so on. According to their responses, it has come forward that a larger percentage of the students infringe copyright due to the increasing price (62.0%) and unavailability of original reading materials (61.4%). Consistent with Ogunrombi & Bello (1999), just 5% of students in universities can barely afford textbooks for studying as well as research. They eventually get engaged in the act of unauthorized photocopying and breaching the author's copyright. Our finding also goes in line with the study of Isiakpona (2012) where he mentioned that cost of purchasing reading materials was the direct cause for infringement by students.

As an answer of RQ4, we find out that a large number of students agree to establishing the practice of citing and acknowledging the original author as a mean to reduce infringement. They furthermore agreed on a belief that incorporating copyright coursework into curriculum as well as hosting seminars and workshops on copyright awareness can help to prevent copyright violations. Our finding is somehow supported by the study of Tella & Oyeyemi (2017) where they established that through arranging orientation programs/user education, it is possible to improve students' understanding of copyright rules. They also anticipated that learning on copyright law might also be incorporated in the curriculum which could be fruitful in making students better aware of the penalties of breaking these rules.

Lastly, in RQ5, more to comprehend students' understanding of copyright concerns, we conducted the Mann-Whitney U test and the Kruskal-Wallis test which showed the variations in copyright awareness between male and female, graduate and undergraduate and students of different age groups.

## 7. Conclusion, implications and future scope

The study investigates the perspectives and consciousness of copyright and copyright infringement among Dhaka University students. The study revealed that students usually infringe on copyright on academic and personal grounds. University of Dhaka, like most other public universities in Bangladesh, is contributing to disseminating knowledge. Here, students are learning not only how to improve their studies but also to quench their cravings for knowledge so that they may perform at their best. Students occasionally violate educational ethics and fall prey to dishonesty in this age of competition. University of Dhaka needs to undertake some strategies in order to impart understanding of copyright and copyright infringement. In comparison to the number of departments and institutions at University of Dhaka, only a handful of departments/institutions have initiated copyright introduction programs and courses in the curriculum.

It is indeed high time for the faculty members, institutes, departments, and other entities to change their approach and enforce stringent standards for enforcing copyright law. The

findings of this study will create additional fields of copyright related research and make it easier for the University of Dhaka to implement the Copyright Act for teaching and learning. The findings might be utilized by university authorities in Bangladesh to take appropriate measures to raise awareness of copyright and its infringements among students. Furthermore, academics from developing nations might investigate this issue at their own universities, and take appropriate measures. This study might lead to additional research in the subject areas of copyright teaching and learning, as well as other relevant areas. This study has a few limitations as well. The study's representative sample is limited, and participants came from several departments and institutes of a single university. Moreover, representations from various institutes and faculties were unequal. Future studies may be undertaken with a broader scope, with more participants from some of the other departments and institutes, along with addressing other facets of copyright understanding and notions among students. Research may be carried out in other universities Bangladesh. Also, comparative studies may be undertaken between universities belonging to developing and developed countries.

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