2

AWARENESS AND KNOWLEDGE OF CREATIVE COMMONS LICENSES ON THE USE OF OPEN EDUCATIONAL RESOURCES (OERS) AMONG DOCTORAL STUDENTS IN PUBLIC UNIVERSITIES IN SOUTHWESTERN NIGERIA

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Abstract

Purpose: *The paper aimed to find out the influence of awareness and knowledge of Creative Commons (CC) licenses on the use of Open Educational Resources (OERs) among doctoral students in public universities in southwestern Nigeria and the need to advocate for OERs usage.*

Design/Methodology/Approach*: A descriptive design was used for the study. Four hundred and sixty-three doctoral students from seven public universities were selected for the study using multistage sampling techniques. A total of 463 questionnaire copies were distributed across all the doctoral students with a retrieval success of 421 copies, representing 90.1% return rate. Data were analyzed using Mean, percentages, frequencies and inferential statistics at 0.05 significance level.*

Findings: *The findings of the study revealed that doctoral students demonstrated moderate awareness (mean = 2.82) and knowledge (mean = 2.85) of CC licenses, with an overall weighted mean of 2.84. Students recognized that CC licenses promote collaboration and knowledge sharing but harboured misconceptions about potential loss of control and increased plagiarism risks. A weak but statistically significant positive relationship ($r = .212$, $p < .05$) was found between CC license perception and OERs use. The study concludes that while doctoral students possess foundational awareness of CC licensing, significant knowledge gaps and misconceptions persist, necessitating structured educational interventions to enhance effective OERs utilization in Nigerian universities.*

Originality/Value: *The paper goes beyond foundational awareness of Creative Commons by designing and recommending a structured educational intervention to enhance effective OERs utilization in Nigerian universities.*

Keywords: *Creative Commons licenses, Open Educational Resources, Doctoral students, Awareness, Knowledge.*

Paper type: *Empirical research*

Background to the study

The global shift toward open access scholarship has positioned Open Educational Resources (OERs) as critical tools for advancing doctoral education, particularly in resource-constrained environments. However, the effective use of OERs is contingent upon adequate understanding of Creative Commons (CC) licences frameworks that govern their legal use, modification and redistribution. Despite the growing availability of OERs, limited empirical evidence exists regarding doctoral students' awareness and comprehension of CC licenses in Nigerian universities. Creative Commons (CC) licence is one of several public copyright licences that enable free distribution of an otherwise copyrighted work. This licence promotes a culture of sharing and collaboration, making it easier for others to use and build upon a work, thereby improving a balance between protecting intellectual property rights and

facilitating broader access to creative content. These licences encompass a variety of permissions and restrictions, each tailored to fit different purposes and audiences (Misra, 2023).

When people are aware of different licences and understand how these licences can protect their rights while promoting access and collaboration, they tend to view them more favourably. For instance, a CC BY license permits users to distribute, remix, adapt, and build upon a work, even for commercial use, provided that proper attribution is given to the original creator. Conversely, a CC BY-NC licence restricts usage to non-commercial purposes, necessitating a more nuanced comprehension of the legal implications associated with each type of license. The degree of knowledge an individual possesses regarding Creative Commons licences directly correlates with their perception and capability to utilise resources licenced under CC effectively (Menzli, Smirani, Boulahia & Hadjouni, 2022). Students who possess a comprehensive understanding of intellectual property and the specific terms of different CC licences are likely to navigate these resources with greater confidence and competence. Such individuals are equipped to comprehend the complexities of attribution requirements and the ramifications of using works protected under various licences.

Furthermore, those lacking this essential knowledge may inadvertently infringe upon copyright laws, which can lead to both legal and ethical complications within their academic endeavour. Research on graduate students' knowledge of Creative Commons (CC) licences presents mixed views. Students using CC-integrated platforms demonstrated increased trust, sharing self-efficacy and outcome expectations compared to conventional online sharing (Awujoola & Phillips, 2020). Creative Commons approach in collaborative learning enhances satisfaction with remix outcomes, peer interaction, knowledge and a sense of work ownership (Maeda, Hashimoto & Sato, 2021). In an OER-enabled pedagogy project, students were open to sharing their work with credit and valued helping others, though faculty tended to be unfamiliar with CC licences (Williams & Werth, 2021). These findings suggest that CC licences can potentially enhance information sharing, collaborative learning and positive interdependence among doctoral students, despite varied knowledge of Creative Commons licences.

The understanding of Creative Commons licences as flexible and permissive significantly influences the use and sharing of open educational resources, as educators and learners are more likely to engage with and contribute to OERs initiatives when they understand and feel comfortable with the

terms governing the use and reuse of Creative Commons licences (Hilton 2016). Promoting awareness and knowledge of Creative Commons licences is crucial for fostering a culture of sharing and collaboration in the development and use of OERs. This paper investigates the influence of Creative Commons licenses awareness and knowledge on the Use of Open Educational Resources (OERs) among Doctoral students.

Statement of the problem

Open Educational Resources (OERs) are crucial tools in global education, enhancing accessibility and improving learning experiences. However, their adoption and effective utilisation are inconsistent in Nigeria. These inconsistencies are traceable to the challenges faced in accessing high-quality OERs due to limited internet connectivity, insufficient digital literacy skills and lack of awareness, by researchers especially doctoral students in Nigerian universities. Doctoral students are expected to leverage these resources to enhance their academic activities, including research work, seminar presentations, team projects and independent studies throughout their programmes. Literature and personal observations by the researcher affirm that many doctoral students in public universities across Nigeria have not adequately embraced the use of OERs. Doctoral students in Nigeria are not fully embracing Open Educational Resources (OERs) to enhance their academic activities, despite their numerous benefits.

Factors that may prevent adequate use of OERs include students' understanding of Creative Commons licences, which plays a significant role in their willingness to use OERs; misconceptions about intellectual property rights and licence usage can lead to hesitancy in the use of OERs. Creative Commons licences are crucial for the effective use of OERs, especially in public universities in southwestern Nigeria with a high number of doctoral students. It is assumed that they have rich institutional repositories as well as an OERs infrastructure since the government funds them. Against this backdrop, the study investigates the influence of Creative Commons licences awareness and knowledge on the use of OERs by doctoral students in public universities in southwestern Nigeria. This study was driven by the following objectives:

i. find out the various types of OER used by doctoral students in public universities in southwestern Nigeria;
ii. ascertain the frequency of use of OER by doctoral students in public universities in southwestern Nigeria;
iii. determine the purpose of using OER by doctoral students in public universities in southwestern Nigeria;
iv. find out the awareness of Creative Commons licences among doctoral

students in public universities in southwestern Nigeria;

v. ascertain the knowledge of Creative Commons licences among doctoral students in public universities in southwestern Nigeria;

vi. establish the relationship between Creative Commons licence perception and use of OERs by doctoral students in public universities in southwestern Nigeria.

Literature review

Open educational resources (OER) have become integral to teaching and learning in higher education globally. Hilton (2020) reported that distance-learning students at the Open University of Hong Kong frequently used OER as supplementary materials for assignments and projects, with open textbooks, lecture notes, and video clips considered particularly useful. Massive Open Online Courses (MOOCs) and tutorials were also valued for their depth and flexibility. However, concerns about reliability and quality persist. In Nigeria, Iyiolakan and Abioye (2025) found that LIS undergraduates students at the federal universities percieved OER as essential for sustainable education but faced challenges such as lack of institutional support and inadequate technology. The authors recommended training and capacity building for students and educators to enhance OER adoption.

Similarly, Oyelude and Omoike (2024) observed that OER improved engagement and learning experiences among distance learners in Southwestern Nigeria. However, perception Perception significantly influences OER adoption. Positive perceptions such as viewing OER as high-quality, accessible, and easy to use encourage utilization, while negative perceptions hinder engagement. Hayes and Elmore (2021) revealed that Nigerian university students generally hold favourable views of OER, with Coursera, EdX, and OpenStax being the most popular platforms.

Students' understanding of Creative Commons licences also plays a significant role in their willingness to use OERs; misconceptions about intellectual property rights and licence usage can lead to hesitancy in the use of OERs. Creative Commons (CC) licence is one of several public copyright licences that enable free distribution of an otherwise copyrighted work. This licence promotes a culture of sharing and collaboration, making it easier for others to use and build upon a work, thus fostering a more extensive creative community. The Creative Commons organisation supports the use of open educational resources by developing copyright licences for open materials, thereby identifying and lowering barriers to research, data, and materials (Adil, *et.al* 2024).

In the Digital Age, the terms open and OERs are interpreted to mean content that is

free for use and available over the Internet. Open means an ability to reuse (unaltered, as is), revise (adapt and modify the content, such as a translation), remix (combine the original content or revisions, creating something novel), and redistribute (share copies of the original, revised or remixed content), which can then be used as an informal learning tool for students.

Creative Commons licences allow content creators to hold on to certain copyrights and at the same time allow others to copy, distribute and make certain use of their works. The copyright owner can adopt any of the available six licence options of creative commons that are available: Attribution (CC BY)- allows others to share, adapt and build upon a material as long as one gives credit to the original creator, Attribution-share-alike (CC BY-SA)- this is similar to (CC BY) but further requires that adaptation be done under same license, for example, Wikipedia, Attribution-NoDerivs (CC BY-ND) allows others to copy and distribute work with attribution, but without making any changes to it. The Attribution-Non Commercial (CC BY-NC)- allows others to remix, adapt, share and build upon a work with attribution but only for non-commercial use, Attribution-Non Commercial-ShareAlike (CC BY-NC-SA)- allows sharing, remixing and adapting a work for non-commercial use with attribution, but any derivative works must also be shared under the same license and Attribution-Non Commercial-NoDerivs (CC BY-NC-ND)- is the most restrictive, allowing only sharing of the original work with attribution and only for non-commercial use, with no modifications permitted. This licence only give room for others to download the works and share them with others as long as they credit the author, but they cannot change them in any way or use them commercially.

Creative Commons licence has made a great impact on the knowledge economy. It stimulates the collaborative production of a variety of resources. Some of the problems with traditional copyright rules, like the inability to access restricted resources and reuse licenced material, may have been mitigated. Additionally, allowing public permission to share and use the creative work has blurred the lines defining ownership (Fia, 2021). Consequently, this has improved resource reuse and recreation. Some universities have used CC to share knowledge outside of their academic fields while keeping some control over their copyrighted materials. For instance, Open educational projects including OERs Commons, OpenLearn and Connexion by Rice University have generated CC-licenced resources like learning modules.

Kimmons(2014) surveyed 450 students across three African universities, finding generally positive attitudes towards CC licences. 76% of respondents viewed CC licences as beneficial for academic and creative work. However, a study by Chen and

Liu (2020) of 300 Chinese university students revealed more ambivalent attitudes. While 62% appreciated the concept of open sharing, 58% expressed concerns about potential misuse of their work under CC licences. Tur etal (2021) qualitative study of Finnish art students uncovered nuanced views, with students valuing the exposure CC licences could provide but worrying about maintaining control over their creations. This suggests that knowledge of CC licenses is influenced by cultural context and field of study.

Kimmons (2014) analysed 1,200 student-created educational resources, finding that only 7% used CC licences. However, usage increased to 23% after a brief instructional intervention. A longitudinal study by Paskevicius and Irvine (2019) tracked CC licence usage among 500 Canadian university students over three years. Use increased from 12% to 37%, correlating with increased institutional emphasis on open educational resources (OERs). However, Lund and Heikkinen's (2022) study of Nordic university students found higher rates of CC licence usage (48%). However, it noted that many students were misusing licences, highlighting a gap between awareness and proper implementation. These studies indicate that while CC licence use among students is growing, there is still significant room for improvement in both adoption and correct application.

Research has identified several factors that influence students' knowledge and use of CC licenses. Kimmons (2014) and Paskevicius and Irvine (2019) have shown that targeted education about CC licences significantly improves both perception and use. Institutional Policies, according to Tur et al. (2020), found that universities with clear policies on open licences had students with more positive perceptions of CC licences. Disciplinary differences, as noted by Kapitzke and Dezuanni (2019), lead to variations in awareness and attitudes across academic disciplines. Chen and Liu (2020) and Santally, *et al*. (2021) highlight how cultural factors can influence perceptions of intellectual property and the sharing it. Personal Creative Output, as noted by Salokannel's (2021) work, suggests that students who actively create and share content have more nuanced views on CC licensing.

Al-Sharar and Eti (2020) indicate that, while a notable majority of students recognize the concept of sharing digital materials, only 43% can accurately distinguish between the various types of CC licences. This finding highlights a critical gap in educational initiatives aimed at enhancing understanding of digital copyright and the promotion of open-access resources within academic curricula. Similarly, Hayes and Elmore (2021) reveal that, despite students acknowledging the importance of copyright in the digital age, a limited number possess a thorough

understanding of how Creative Commons licenses function as legal frameworks that facilitate the structured sharing and utilisation of creative works. Such knowledge deficits can significantly impede students' ability to effectively incorporate CC licences into their academic practices, thereby limiting opportunities for collaborative engagement and innovation.

Students' knowledge of Creative Commons licences is influenced by their interactions with digital content and their overarching attitudes toward content sharing. Causin (2022) suggests that a substantial proportion of students regard CC licences favourably, associating them with fostering creativity and enhancing collaboration. This study elucidates that students perceive these licenses as valuable tools for promoting academic collaboration and increasing access to educational resources, thereby contributing to a broader culture of inclusivity in education. Conversely, students express concerns about the potential risks associated with sharing their work under CC licences. Williams and Harris (2023) indicate that approximately 30% of surveyed students express trepidation about the potential misuse of their works, primarily due to fears of inadequate attribution or unauthorised modifications.

Literature reveals a complex backdrop of CC licence knowledge among university students. While awareness is growing, significant gaps remain in understanding and the proper use of these terms. Attitudes are generally positive but tempered by concerns about control and misuse. Education, institutional policies and cultural factors play significant roles in shaping perceptions and usage. As universities increasingly emphasise open educational resources and digital citizenship, understanding and improving students' perceptions and use of CC licences will become ever more crucial.

This research is hinged on the Theory of Remix Culture propounded by The legal scholar Lawrence Lessig in early 2000. Lessig established the Creative Commons, which provided various licenses to support remix culture. The Creative Commons licences enable creators to specify conditions for using their works, such as requiring attribution or prohibiting commercial use, while allowing others to build upon their creations.The idea behind Remix culture is that rather than creating entirely new works, creativity and innovation stem from recombining and transforming existing works. This highlights that open educational resources (OERs) and other existing works can be repurposed, reimagined and combined to create new and innovative materials. It emphasised the value of repurposing and building upon existing cultural and educational materials, allowing individuals to access and modify OERs freely.

This educational approach supports the belief that knowledge is a continually evolving and collective entity that benefits from

ongoing reinterpretation and reconstruction. It also encourages a sense of empowerment and creativity among educators and learners. The rise of digital media has led to a substantial shift toward remix culture. Unlike analog media, which promoted passive consumption, digital media has fostered a reciprocal "read-write" culture, allowing individuals to consume and create creative works. Within this framework, using OERs encourages educators and learners to engage in collaborative content creation, adaptation and sharing, development continuous improvement and openness. The theory of remix culture emphasises the potential of OERs to enhance and revolutionise traditional educational practices, cultivating a more participatory and inclusive learning environment and inspiring optimism about the future of education.

The practice of reworking and combining existing content, has become a defining feature of modern creativity. This practice, often referred to as 'creative and new', 'variant', and 'altered', is not merely a copy, but a piece of art or music that exhibits some degree of originality. However, the Creative Commons licences enable creators to specify conditions for using their works, such as requiring attribution or prohibiting commercial use, while allowing others to build upon their creations.

Methodology

The study adopted a descriptive survey research design. A multistage stratified sampling technique was employed to select 463 doctoral students from seven public universities in southwestern Nigeria, representing diverse academic disciplines. Data were collected using a validated structured questionnaire with reliability coefficient of 0.82. The instrument comprised four sections measuring demographic characteristics, CC license awareness, CC license knowledge, and OER usage patterns. Data were analyzed using descriptive statistics (frequencies, percentages, mean, and standard deviation) and inferential statistics (Chi-square, Pearson correlation, and multiple regression analysis) at 0.05 significance level.

Results and Discussion

Demographic characteristics of the respondents

The demographic characteristics, such as the name of the institution, programme of the study, gender and age of the respondents, were analysed using frequency counts and percentage.

The result is presented in Table 1.

Demographic variable	Category	Frequency	Percent (%)
Name of institution	EKSU	67	15.9
	LASU	115	27.3
	OAU	37	8.8
	OOU	36	8.6
	AAUAA	31	7.4
	UI	64	15.2
	UNILAG	71	16.9
Programme of study	Accounting	44	10.5
	Arts/Social Science education	27	6.4
	Banking and finance	22	5.2
	Communication and language	14	3.3
	Counselling human/human development studies	51	12.1
	Educational management	34	8.1
	Education psychology	14	3.3
	English	87	20.7
	Guidance and counselling	36	8.6
	Linguistic	34	8.1
	Economics	31	7.4
	Mass communication	27	6.4
Gender	Male	179	42.6
	Female	242	57.5
Age	20-25	54	12.8
	26-30	38	9.0
	31-35	178	42.3
	35 and above	151	35.9

The results in Table 1 showed that of the respondents drawn from seven institutions investigated, Lagos State University (27.3%) contributed the highest proportion, followed by the University of Lagos (16.9%) and the University of Ibadan (15.2%). Other universities contributed between 7.4% and 15.9% each. In terms of programme of study, English (20.7%) had the highest representation, followed by Counselling/Human Development Studies (12.1%), and Accounting (10.5%). Other programmes such as Educational Psychology, Linguistics, and Economics contributed smaller proportions. Moreover, the gender distribution indicated a slightly higher representation of female respondents (57.5%) compared with males (42.6%). Regarding age, the largest proportion of respondents (42.3%) were between 31 and 35 years, while 35.9% were 36 years and above, suggesting that most of the doctoral students were mature adults in mid-career stages.

Research question one: Find out the various types of OER used by doctoral students in public universities in southwestern Nigeria.

Table 2: Types of open educational resources used by doctoral students in public universities in Southwestern Nigeria

Open educational resources used: I use	HU		MU		OU		NU			
	N	%	N	%	N	%	N	%	$\bar{x}$	STD
Open courseware (eg. MOOC, Coursera, Merlot Online Courses, Future Learn, MIT, etc)	54	12.8	220	52.3	56	13.3	91	21.6	2.56	0.83
open textbooks (eg. Open Textbook Library, OpenStax, FlatWorld Knowledge, Open Education Consortium)	95	22.6	176	41.8	97	23.0	53	12.6	2.74	0.93
Open teaching content (e.g.videos, lesson plans; assessment briefs).	82	19.5	117	27.8	150	35.6	72	17.1	2.50	0.97
Open simulations (eg. weather forecasting models, flight simulators)	96	22.8	119	28.3	101	24.0	105	24.9	2.49	1.17
Open online tutorials (eg. Coursera, Codecademy, LinkedIn Learning)	137	32.5	155	36.8	70	16.6	59	14.0	2.88	1.29
Open conference papers (eg. Conference proceedings)	94	22.3	206	48.9	94	22.3	27	6.4	2.87	0.91
Open streaming videos (eg. YouTube and Vimeo provide visual and instructional content related to various subjects)	134	31.8	172	40.9	57	13.5	58	13.8	2.91	0.99
Open Learning Modules (video lessons, interactive tutorials on a platform like Coursera, downloadable PDF guides from university website)	120	28.5	144	34.2	110	26.1	47	11.2	2.80	0.89
Open-access Journals (eg. Journal of Open Access, etc)	97	23.0	189	44.9	99	23.5	36	8.6	2.82	0.91
open multimedia resources (eg. Wikimedia Commons, Openverse, OER Commons, Khan Academy, etc)	120	28.5	186	44.2	88	20.9	27	6.4	2.95	0.97
open science (eg. Open Science Framework, eLife Journal, open data sharing, open access publishing, etc)	107	25.4	183	43.5	61	14.5	70	16.6	2.78	1.12
open bibliographic databases (eg. Directory of Open Access Journals (DOAJ), etc).	95	22.6	190	45.1	68	16.2	68	16.2	2.74	1.28
Weighted mean									**2.75**	**1.02**

Key: Highly Used (HU), Moderately Used (MU), Occasionally Used (OU), Never Used (NU)

Result in Table 2 indicated that the overall weighted mean score for types of OERs used was 2.75, which was higher than the criterion mean of 2.50. This suggests that most of the doctoral students in public universities in southern Nigeria moderately used various types of OERs. Specifically, majority of the respondents affirmed that OERs such as open multimedia resources ($\bar{x}$ = 2.95), open streaming videos ($\bar{x}$ = 2.91) and open-access journals ($\bar{x}$ = 2.82) were the mostly used types by doctoral students in public universities in southwestern Nigeria. Conversely, open teaching content ($\bar{x}$ = 2.50) and open simulations ($\bar{x}$ = 2.49) recorded the lowest means, reflecting only marginal use above the criterion. This implies that a greater proportion of the doctoral students in public universities

in southwestern Nigeria used different types of OERs such as open multimedia resources and open-access journals.

The findings are consistent with those of Williams and Haris. (2023), who reported that postgraduate students in Nigeria relied heavily on multimedia and open-access journals for research. Similarly, Misra (2023) also reported that postgraduate students in Kenya relied heavily on open-access journals and lecture notes. Maeda and Sato (2021) in India noted that OERs use among postgraduate students was skewed towards more accessible and freely available platforms.

Research question two: Find out the frequency of use of OERs by doctoral students in public university in southwestern Nigeria.

Table 3: Frequency of use by doctoral students in public universities in Southwestern Nigeria

Key: Daily (D); Weekly (W); Monthly (M); Occasionally (O) statements.										
Frequency of use: how often do you use	D		W		M		O			
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	$\bar{x}$	**STD**
Open courseware (eg. MOOC, Cosera, Merlot Online Courses, Future Learn, MIT, etc)	106	25.2	178	42.3	82	19.5	55	13.1	2.80	1.21
open textbooks (eg. Open Textbook Library, OpenStax, FlatWorld Knowledge, Open Education Consortium)	108	25.7	203	48.2	83	19.7	27	6.4	2.93	1.13
Open teaching content (e.g.videos, lesson plans; assessment briefs).	94	22.3	137	32.5	148	35.2	42	10.0	2.67	1.31
open simulations (eg. weather forecasting models, flight simulators)	67	15.9	94	22.3	190	45.1	70	16.6	2.38	1.37
open online tutorials (eg. Coursera, Codecademy, LinkedIn Learning)	95	22.6	164	39.0	120	28.5	42	10.0	2.74	0.85
Open conference papers (eg. Conference proceedings)	53	12.6	134	31.8	150	35.6	84	20.0	2.37	1.29
Open streaming videos (eg. YouTube and Vimeo provide visual and instructional content related to various subjects)	94	22.3	150	35.6	135	32.1	42	10.0	2.70	1.19
Open Learning Modules (video lessons, interactive tutorials on a platform like Coursera, downloadable PDF guides from university website)	123	29.2	122	29.0	94	22.3	82	19.5	2.68	1.44
Open-access Journals (eg. Journal of Open Access, etc)	98	23.3	190	45.1	67	15.9	66	15.7	2.76	1.22
open multimedia resources (eg. Wikimedia Commons, Openverse, OER Commons, Khan Academy, etc)	42	10.0	202	48.0	79	18.8	98	23.3	2.45	1.31
open science (eg. Open Science Framework, eLife Journa, open data sharing, open access publishing, etc)	39	9.3	191	45.4	110	26.1	81	19.2	2.45	1.31
open bibliographic databases (eg. Google Scholar, PubMed (for medical research), Directory of Open Access Journals (DOAJ), etc).	109	25.9	120	28.5	111	26.4	81	19.2	2.61	1.38
Weighted mean									**2.63**	**1.25**
Overall weighted mean									**2.70**	**1.07**

Criterion mean = 2.50

Key: Daily (D); Weekly (W); Monthly (M); Occasionally (O)

Given the result above, the majority of the respondents used OERs frequently a little above average. Specifically, the result showed that majority of the respondents affirmed that open textbooks ($\bar{x}$ = 2.93), open-access journals ($\bar{x}$ = 2.76), and open courseware ($\bar{x}$ = 2.80) were frequently used, while conference papers ($\bar{x}$ = 2.37) and open simulations ($\bar{x}$ = 2.38) were used less frequently.

It can therefore be inferred that the majority of doctoral students in public universities in southwestern Nigeria frequently or always utilize OER.This inclination is likely attributed to the fact that doctoral students typically turn to various types of OER when they have specific academic requirements, such as assignments, group presentations, seminar presentations, and projects. Consequently, it is reasonable to expect that the majority may not engage with these resources daily. The findings correspond with the results of a study conducted by Iyiolakan and Abiola (2025), which demonstrated that a significant proportion of respondents utilized OER on a fairly frequent basis. This consistent pattern of results across different studies underscores the relevance and utility of OER in supporting the academic pursuits of students.

Research question three: Find out the purpose of use of OERs by doctoral students in public universities in Nigeria.

Table 4: Purpose of use of OERs by doctoral students in public universities in Southwestern Nigeria

Purpose of use of OERs: I use	HU		MU		OU		NU		$\bar{x}$	**STD**
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**		
Open learning materials online to supplement my coursework	105	24.9	194	46.1	68	16.2	54	12.8	2.83	0.75
Open E- textbook for tutorials	123	29.2	178	42.3	62	14.7	58	13.8	2.87	0.83
Open E-journals/databases for research purposes	132	31.4	149	35.4	140	33.3		0.0	2.98	0.78
Open courseware to prepare for exams	95	22.6	112	26.6	150	35.6	64	15.2	2.57	1.08
Open Video streaming for educational purposes	121	28.7	124	29.5	102	24.2	74	17.6	2.69	0.89
Open-access journals to supplement my course work and study	137	32.5	161	38.2	95	22.6	28	6.7	2.97	0.98
Open learning modules to	105	24.9	152	36.1	109	25.9	55	13.1	2.73	0.94

prepare seminar papers										
Content in conference papers for archival records	63	15.0	89	21.1	101	24.0	168	39.9	2.11	0.85
Open content of course videos/Youtube with other similar content to create something new	116	27.6	113	26.8	125	29.7	67	15.9	2.66	0.89
Open Project reports to aid my articles and thesis writing	109	25.9	118	28.0	139	33.0	55	13.1	2.67	1.14
Weighted mean									**2.71**	**0.91**

Key: Highly Used (HU), Moderately Used (MU), Occasionally Used (OU), Never Used (NU)

The result presented the analysis of purpose of use which produced a weighted mean of 2.71. In essence, majority of the doctoral students in public universities in Southwestern Nigeria predominantly used OERs for accessing open e-journals and databases for research ($\bar{x}$ = 2.98) and open-access journals for coursework support ($\bar{x}$ = 2.97). However, conference papers for archival purposes ($\bar{x}$ = 2.11) and recreational purposes ($\bar{x}$ = 2.56) were rated lowest by the majority of the respondents. This suggests that the main purpose of use of OERs by a greater number of doctoral students in public universities was for accessing open e-journals and databases for research and open-access journals for coursework support. On this basis, it can be inferred that the major reasons for the use of OER by doctoral students in public universities in southwestern Nigeria were for homework and assignments, to supplement further reading and for lifelong learning, to view high-quality courses from prestigious universities.

This finding substantiates the earlier discussion on the frequency of OER use, with employing them for homework and assignments emerging as the most prevalent purpose among the respondents. This study's findings align with that of Cheung (2019) who opined that OER have been widely used for teaching and learning in higher education, as well as for supplementary learning materials and acquiring relevant knowledge. Similarly, the study by Oyelude and Omoike (2024) examined perception of open educational resources (OER) by the distance learning students (DLS) of University of Ibadan revealed that electronic resources, digitized projects and YouTube were the main resources used to supplement lecture notes, course notes and research work among distance learning students.

Research question four: What is the level of doctoral students' awareness of Creative Commons licence in public universities?

The results on the Awareness of Creative Commons licences is presented in Table 5.

Level of Doctoral students' awareness to Creative Commons licence in public universities

Statements	VH		H		L		VL		$\bar{x}$	STD
Awareness: To what extent does:	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	$\bar{x}$	**STD**
creative commons licences give room for the creation of new knowledge	79	18.8	290	68.9	28	6.7	24	5.7	3.01	0.79
creative commons licences make content creators unable to have control over their contents	89	21.1	201	47.7	56	13.3	75	17.8	2.72	0.86
Creative commons licences promote creativity and innovation.	64	15.2	190	45.1	117	27.8	50	11.9	2.64	0.75
Creative Commons licences give room to share creative works	115	27.3	128	30.4	98	23.3	80	19.0	2.66	0.83
Creative Commons licences give room to remix creative works	110	26.1	171	40.6	84	20.0	56	13.3	2.80	1.19
creative commons licences make it easier for content creators to maintain their copyrights while allowing others to legally share their content	110	26.1	137	32.5	119	28.3	55	13.1	2.72	1.08
Creative Commons licence promotes sharing of knowledge.	82	19.5	225	53.4	71	16.9	43	10.2	2.82	0.89
with creative commons licences, content creators give permission to use their work ahead of time	67	15.9	300	71.3	40	9.5	14	3.3	3.00	0.92
Creative Commons licence promotes collaboration.	66	15.7	272	64.6	42	10.0	41	9.7	2.86	0.91
creative commons licences make it easier for content creators to maintain their copyrights while allowing others to legally reuse their content	119	28.3	204	48.5	70	16.6	28	6.7	2.98	0.85
Weighted mean									2.82	0.91

The result in Table 5 indicated that awareness of creative commons licences averaged 2.82. Specifically, most of the respondents recognised that Creative Commons promotes collaboration ($\bar{x}$ = 2.86) and knowledge sharing ($\bar{x}$ = 2.82). However, awareness was uneven, as misconceptions about the risks of Creative Commons were also evident. particularly the belief that Creative Commons use may result in loss of control over one's work ($\bar{x}$= 3.11).

Research question five: What is the level of doctoral students' knowledge of Creative Commons licence in public universities?

Table 6: Level of doctoral students in public universities to Creative Commons licence Knowledge

Knowledge: I understand that ..	**SA**	**%**	**A**	**%**	**D**	**%**	**SD**	**%**	$\bar{x}$	**STD**
There are potential restrictions of using creative commons licenced materials	209	49.6	69	16.4	82	19.5	61	14.5	3.01	0.91
using Creative Commons licences will result in a loss of control over my work	205	48.7	109	25.9	54	12.8	53	12.6	3.11	0.86
Creative Commons licences to be complex and difficult to understand.	108	25.7	176	41.8	80	19.0	57	13.5	2.80	0.75
I believe that Creative Commons licences do not provide adequate protection for any intellectual property rights.	51	12.1	206	48.9	81	19.2	83	19.7	2.53	1.23
how to properly attribute and cite works licenced under Creative Commons could be tedious.	99	23.5	151	35.9	107	25.4	64	15.2	2.68	0.78
using Creative Commons licences will increase risk of plagiarism and academic dishonesty.	109	25.9	190	45.1	94	22.3	28	6.7	2.90	1.28
any creative commons license without the NonCommercial designation can be sold	108	25.7	206	48.9	79	18.8	28	6.7	2.94	0.89
content creators can monetize royalty, free or creative commons contents when the license agreement grants them the right to use it commercially.	127	30.2	136	32.3	90	21.4	68	16.2	2.76	0.92
there are copyright privileges to content creators	149	35.4	125	29.7	79	18.8	68	16.2	2.84	0.91
there are copyright infringements when online contents are used with acknowledgement.	104	24.7	208	49.4	81	19.2	28	6.7	2.92	0.81
Weighted mean									2.85	0.93
Overall weighted mean									2.84	0.92

knowledge-related items produced a mean of 2.85, showing that students moderately understood how Creative Commons operates. However, students expressed concerns that Creative Commons may lead to loss of control over one's work ($\bar{x}$ = 3.11) and increased plagiarism risks ($\bar{x}$ = 2.90). These reflect misunderstandings of the framework rather than accurate knowledge. These can be inferred that students articulated conceptual awareness that open licensing frameworks serve as juridical architectures designed to reduce barriers to information access, promote reciprocal knowledge exchange and cultivate cultures of academic openness and resource sharing. This dimension of their perceptual framework suggests successful internalization of the foundational philosophical principles undergirding the open education movement and reflects alignment with contemporary discourse emphasising knowledge as a public good rather than exclusively proprietary commodity.

The overall weighted mean score of Creative Commons licences was 2.84 (Table 6), which is above the criterion mean. Awareness-related items scored 2.82, while knowledge-related items scored 2.85. This indicates that most of the doctoral students in public universities in southwestern Nigeria were moderately aware of and knowledgeable about Creative Commons licensing. Among the strongest indicators was the recognition that Creative Commons licences promote collaboration and knowledge sharing. However, some misconceptions persisted, particularly the belief that Creative Commons use may result in loss of control over one's work and increase plagiarism risks. These findings reflect a partial but uneven understanding of open licensing. The overall mean score (2.84) indicates a moderate perception of Creative Commons licences. While doctoral students were aware of their collaborative potential, persistent misconceptions suggest that their understanding was partial and required more structured guidance.

The study on doctoral students on Creative Commons licensing frameworks shows a mixed understanding, characterized by moderate awareness and partial comprehension. While students recognize the benefits of Creative Commons in promoting collaborative practices and democratizing access to knowledge, significant misconceptions persist. Many students fear loss of authorial control and believe that open licenses increase vulnerability to plagiarism, indicating a misunderstanding of how licensing works. These issues are attributed to inadequate education on intellectual property and licensing in Nigeria's doctoral programs. The findings align with previous research highlighting similar gaps in licensing awareness among postgraduate students in

other educational contexts (Kapitzke and Dezuanni, 2019).

Hypothesis one: There is no significant relationship between Creative Commons licence awareness and knowledge on the use of OERs by doctoral students in public universities in Southwestern Nigeria.

Table 7: Relationship between Creative Commons licence awareness and knowledge on use of OERs by doctoral students in public universities in southwestern Nigeria

Variables	x̄	**STD**	N	R	p	Remark	Decision
Creative commons licence	56.70	18.41	421	.212	.000	Significant	Reject hypothesis
Use of OERs	91.66	36.4					

Table 7. provides the result of the correlation between Creative Commons and OERs use. The mean score for Creative Commons perception was 56.70, and that of OERs use remained 91.66. The correlation coefficient ($r = .212$, $p < .05$) reveals a weak but statistically significant positive relationship. While the strength of association is lower than that observed that students with greater awareness and knowledge of Creative Commons licences tend to make more use of OERs. The null hypothesis is therefore rejected, although the relationship is comparatively weaker. This suggests that licensing knowledge contributes to use of OERs. This is in relation to the findings of Salokannel (2021), whose qualitative inquiry into postgraduate students' engagement with open educational resources revealed systematic patterns of confusion, ambiguity and misconception regarding the legal frameworks governing resource utilisation, modification and redistribution under various Creative Commons license variants.

Conclusion

Open Educational Resources (OER) offer free, high-quality learning materials that enhance equity and reduce costs in education. This study highlights the positive perceptions and uses of OER; however, it identifies significant challenges, including limited awareness and knowledge, particularly among doctoral students in southwestern Nigeria regarding Creative Commons (CC) licensing. Misunderstandings about authorial control and plagiarism hinder effective OER use. The research found a weak correlation between knowledge of CC licenses and OER usage, suggesting that increasing literacy around these licenses is crucial for promoting OER adoption. The study calls for universities to actively integrate OER into their strategies, supported by educators and policymakers through funding and infrastructure. It stresses the need for comprehensive training on intellectual property within doctoral programs and promotes further research on the impact of

such educational reforms on collaborative knowledge production and digital creativity.

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