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Awareness and Utilization of Open Educational Resources Among P.G. Students of Science and Social Science at Aligarh Muslim University: A Comparative Study

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Abstract

Open Educational Resources (OER) have become an important component of higher education by providing free and openly licensed learning materials that support teaching, learning, and research. OERs help reduce the financial burden on students, promote equitable access to knowledge, and encourage lifelong learning. Despite the availability of numerous OER platforms, their effective use largely depends on students' awareness, accessibility, and institutional support. The present study examines the awareness and utilization of Open Educational Resources among postgraduate students of the Faculty of Science and Faculty of Social Science at Aligarh Muslim University (AMU). A comparative approach is adopted to identify differences in awareness levels, usage patterns, preferred OER platforms, and challenges faced by students across the two faculties. Data were collected using a structured questionnaire and analyzed through descriptive statistical methods. The findings indicate that most postgraduate students are aware of OERs, but the level of utilization varies across disciplines. Students primarily use OERs for academic learning, research work, and examination preparation. Platforms such as SWAYAM, NPTEL, e-PG Pathshala, and OpenStax are widely used. However, issues related to lack of proper training, limited understanding of licensing, and concerns regarding quality and credibility continue to affect effective utilization. The study highlights the need for increased institutional support and library-led awareness programs to promote effective adoption of OERs in higher education.

Keywords: e-PG Pathshala, library, and information science, NPTEL, open educational resources, SWAYAM

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INTRODUCTION

Open Educational Resources (OERs) are learning, teaching, and research materials freely available in the public domain or licensed under open licenses. Such licenses grant users the right to access, modify, redistribute, and change educational content with little restriction (UNESCO, 2002). OERs constitute various educational materials, including textbooks, lecture notes, multimedia materials, quizzes, simulations, and computer teaching tools. Open Educational Resources (OER) have emerged as a powerful driver for change in education, promoting free and unrestricted access to study materials that can be freely used, changed, and shared. The use of OER has gained momentum as higher education institutions, policymakers, and teachers recognize the need for an increased inclusive and equitable opportunity for learning

(McGreal, 2017) [1]. The concept of OER aligns with the broader movement toward open knowledge and democratized education, aiming to reduce barriers to learning and promote equity in access to education (Yuan, MacNeill, & Kraan, 2008) [2]. The term "Open Educational Resources" was initially coined by UNESCO in 2002 to underscore the role of openly licensed materials in democratizing education and improving learning outcomes worldwide (Wiley, 2007) [3]. OER has emerged as a popular model that defies traditional publishing and copyright restrictions, offering alternative knowledge- sharing channels (Friesen, 2009) [4].

Moreover, OER supports lifelong learning by enabling individuals to access educational content at any stage, fostering a culture of continuous personal and professional development (Kimmons & Irvine, 2023) [5]. OER encompasses various educational content, including digital textbooks, lecture presentations, multimedia materials, course modules, scholarly articles, tests, and open-access publications. These resources are typically made available under Creative Commons licenses, allowing users to lawfully obtain, change, and share the resources as per their respective permissions (Mishra, 2017) [6]. Open Educational Resources (OER) provide learners with free and flexible materials tailored to their needs (Kumar & Singh, 2019) [7]. The ability of OER to be altered makes them particularly valuable for teachers who wish to tailor course materials while incorporating multiple perspectives and up-to-date knowledge (Perryman & Seal, 2016) [8]. The development of OER has been directly attributed to the increasing demand for online and distance learning. As digital technologies continue to shape modern learning environments, OER has played a critical role in bridging learning gaps and ensuring that students, regardless of their geographical location or economic status, have access to quality learning materials (Afolabi, 2017) [9].

Technological Platforms of OERs

1. *Khan academy:* Provides free video lessons and interactive learning tools based on a mastery-learning approach across multiple disciplines (Khan Academy, 2023) [10].
2. *OpenStax:* Affiliated with Rice University, offers peer-reviewed, openly licensed textbooks that reduce student costs while maintaining academic quality (OpenStax, 2023) [11].
3. *OER:* Commons functions as a collaborative digital repository that enables educators and learners to access, adapt, and share open resources, promoting innovative teaching and learning practices (OER Commons, 2023) [12].
4. *SWAYAM:* Delivers Massive Open Online Courses developed by faculty from premier institutions, supporting flexible and inclusive learning aligned with national education policies (Paul et al., 2018) [13].
5. *NPTEL:* Provides high-quality video lectures and certification courses in science and engineering through a joint initiative of IITs and IISc, supporting curriculum integration and lifelong learning (Mandhirasalam, 2011) [14].
6. *e-PG Pathshala:* Developed by the UGC under NMEICT, offers postgraduate-level e-content across disciplines, promoting self-paced and equitable access to higher education.

REVIEW OF LITERATURE

Recent studies (2018 onwards) indicate a growing awareness of Open Educational Resources (OERs) in higher education, alongside persistent challenges in their effective utilization. Research consistently shows that OER adoption improves academic performance, reduces financial burden, and promotes educational equity, particularly for economically disadvantaged and first-generation learners (Colvard et al., 2018) [15]. Studies conducted in the Indian context reveal that students and faculty generally recognize the value of OERs; however, actual usage often remains limited due to issues such as inadequate awareness, insufficient training, content quality concerns, copyright uncertainties, and technological constraints (Kumar & Singh, 2019; Dsouza, 2021; Muniyasamy & Jeyshankar, 2023) [7, 16, 17]. Government-supported platforms such as SWAYAM, NPTEL, and e-PG Pathshala have significantly enhanced access to digital learning resources, yet their full potential is constrained by gaps

in digital literacy, faculty engagement, and institutional policy support (Shukla, 2020; Madhu & Kumar, 2022; Saxena & Singh, 2023) [18–20]. Several studies emphasize that faculty involvement, structured training programs, and institutional commitment are critical for integrating OERs into mainstream teaching and learning practices (Marin et al., 2022; Singh et al., 2022) [21, 22]. Learner-related factors such as gender, academic discipline, preferred formats, and access devices also influence OER usage patterns, highlighting the need for targeted awareness initiatives and inclusive strategies (Miracle, 2020; Issa, 2020) [23, 24]. From a Library and Information Science perspective, scholars strongly advocate the proactive role of academic libraries and librarians in curating OERs, providing licensing guidance, and establishing dedicated OER support services to enhance adoption and sustainability (Sheret & Harper, 2019; Deshmukh, 2018) [25, 26].

Objectives of the Study

The present study aims to achieve the following objectives:

1. To assess the level of awareness of Open Educational Resources (OERs) among postgraduate students in the Faculty of Science and Faculty of Social Science at AMU
2. To compare the extent of utilization of OERs between the two faculties
3. To identify the types of OERs most commonly accessed by students
4. To explore the purpose and frequency of OER usage among postgraduate students
5. To examine the challenges faced by students in accessing or using OERs
6. To provide suggestions for improving awareness and effective utilization of OERs in higher education

RESEARCH METHODOLOGY

The present study focuses on postgraduate students from the Faculty of Science and the Faculty of Social Science at Aligarh Muslim University (AMU) as the sample population. To ensure balanced representation, 50 responses were collected from each faculty, totaling 100 respondents. A structured questionnaire was designed using Google Forms, consisting of close-ended questions aimed at assessing students' awareness, usage, and challenges related to Open Educational Resources (OERs). The data collection procedure involved circulating the questionnaire digitally through academic WhatsApp groups, class representatives, and official university email channels, with participation being entirely voluntary and confidentiality of responses assured to encourage honest feedback. Over a period of two weeks, the 100 responses were collected—50 from each faculty—and subsequently compiled and organized for analysis. The collected data were systematically tabulated and analyzed using basic statistical methods, with the percentage method employed to interpret trends and patterns in students' engagement with OERs. This approach facilitated a comparative understanding of the awareness, frequency of usage, and challenges faced by postgraduate students in the two faculties. By converting raw responses into percentages, the study identified key similarities and differences in OER adoption and utilization, highlighting areas that may require additional support or intervention. Overall, the methodology ensured a structured, systematic, and transparent process for data collection and analysis, enabling the researcher to draw meaningful insights about the adoption and challenges of OERs among postgraduate students at AMU, while maintaining ethical considerations such as voluntary participation, anonymity, and confidentiality.

Data Analysis and Interpretation

Table 1 provides the age-wise distribution of postgraduate students from the Faculty of Science and the Faculty of Social Science at AMU. It shows that the majority of students in both faculties are in the 23–24 years age group, with 56% of Science students and 60% of Social Science students. The next largest group is 25–28 years, accounting for 32% of Science students and 26% of Social Science students. The age groups 28–30 years and 31–33 years represent a smaller portion, ranging from 6% to 8% in both faculties.

The Table 2 presents the gender-wise distribution of individuals interested in Science and Social Science, along with their respective percentages. In the Science category, males constitute the majority

with 60% (30 individuals), while females make up the remaining 40% (20 individuals). Conversely, in the Social Science category, females slightly surpass males, accounting for 52% (26 individuals) compared to 48% (24 individuals) for males.

The Table 3 illustrates the frequency of engagement with Science and Social Science subjects among respondents. In the Science category, weekly, and monthly engagement are equally common, each reported by 25% of respondents (14 individuals). Daily engagement follows closely at 21.43% (12 individuals), while 16.07% engage rarely and only 1.79% report never engaging with Science. In contrast, Social Science sees the highest engagement on a weekly basis, with 35.19% (19 individuals), followed by daily engagement at 25.93% (14 individuals). Monthly engagement drops to 12.96% (7 individuals), and 14.81% report engaging rarely. A small proportion (3.70%, or 2 individuals) never engage with Social Science.

The Table 4 presents the methods through which respondents access Science and Social Science materials. Data is collected through multiple responses. Mobile phones are the most commonly used devices for both subjects, with 38.36% (28 individuals) in Science and an even higher 42.67% (32 individuals) in Social Science relying on them. Laptops and personal computers follow closely, used by 35.62% (26 individuals) in Science and 38.67% (29 individuals) in Social Science, indicating that digital devices are the primary means of access across both disciplines. Use of tablets is more prominent in Science (12.33%) compared to Social Science (5.33%), while library computers are used more frequently for accessing Social Science materials (13.33%) than Science (9.59%). Overall, mobile phones and laptops/PCs dominate as preferred access methods, reflecting a strong shift toward personal and portable digital technologies for engaging with academic content. The relatively higher use of library computers in Social Science may indicate institutional or shared access patterns within that discipline.

The Table 5 outlines the different purposes for which respondents engage with Science and Social Science materials. Data is collected through multiple responses. In the Science category, the most common purpose is self-learning, with 24.62% (32 individuals) utilizing the resources for independent study. This is followed by engagement for examination purposes, at 20% (26 individuals), highlighting a strong academic focus. Research purposes account for 16.92% (22 individuals), and teaching or academic instruction is also a significant use, with 19.23% (25 individuals). Supplementing course materials and general use (unspecified or miscellaneous purposes) have slightly lower percentages, at 16.15% (21 individuals) and 9.23% (12 individuals), respectively. For Social Science, self-learning remains the primary purpose at 26.52% (35 individuals), closely followed by research purposes, which account for 22.73% (30 individuals). The use for supplementation of course materials is also high, at 17.42% (23 individuals). Teaching and academic instruction purposes make up 15.91% (21 individuals), and examination-related use is less prominent, with only 12.12% (16 individuals) engaging in this way. The general use category is relatively low at 10.61% (14 individuals).

The Table 6 highlights the most frequently used types of Open Educational Resources (OER) in Science and Social Science. In the Science category, lecture videos are the most popular OER, with 45.45% (25 individuals) using them most frequently. E-books follow at 27.27% (15 individuals), while online courses are used by 14.55% (3 individuals). Open- access journals are the least commonly used OER in Science, with only 12.73% (7 individuals) reporting frequent usage. In Social Science, online courses and open-access journals are the most frequently used types of OER, both at 24.53% (13 individuals). Lecture videos are used by 28.30% (15 individuals), making them the most popular option in Social Science. E-books are less commonly used, with 16.98% (9 individuals) choosing them most frequently.

The Table 7 illustrates the sources from which respondents access resources for Science and Social Science. Data is collected through multiple responses. In the Science category, the most commonly used

source is open-access databases, with 27.88% (29 individuals) relying on them. Government-funded schemes such as SWAYAM and NPTEL follow closely, with 24.04% (25 individuals) using them. Institutional websites are accessed by 20.19% (21 individuals), while university digital repositories and Egyankosh are used less frequently, at 12.50% (13 individuals) and 6.73% (7 individuals), respectively. For Social Science, government-funded schemes like SWAYAM and NPTEL are the most commonly used source, with 28.43% (29 individuals) relying on them. Open-access databases are also highly used, at 26.47% (27 individuals), followed by institutional websites at 17.65% (18 individuals). University digital repositories and Egyankosh are used less often, with 10.78% (11 individuals) and 8.82% (9 individuals) reporting usage, respectively.

The Table 8 presents the awareness levels of respondents regarding certain subjects or resources in Science and Social Science. In the Science category, the majority of respondents (48%) report a moderate level of awareness, followed by 32% (16 individuals) with very high awareness. Only 14% (7 individuals) have high awareness, while 6% (3 individuals) have a low awareness level. Interestingly, no respondents reported being unaware of the subject. In the Social Science category, the distribution is somewhat similar, though slightly more respondents (36%) report having very high awareness compared to Science. Moderate awareness is reported by 34% (17 individuals), and 18% (9 individuals) have high awareness. 12% (6 individuals) have a low level of awareness, but again, no respondents reported being unaware.

Table 1. Age distribution of respondents

S. No.	Age Group	Science	Science (%)	Social Science	Social Science (%)
1	23–24	28	56%	30	60%
2	25–28	16	32%	13	26%
3	28–30	3	6%	4	8%
4	31–33	3	6%	3	6%
	Total	**50**	**100%**	**50**	**100%**

Table 2. Distribution of respondents by gender.

S.N.	Gender	Science	Science (%)	Social Science	Social Science (%)
1	Male	30	60%	24	48%
2	Female	20	40%	26	52%

Table 3. Frequency of OER usage

S.N.	Frequency	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Daily	12	21.43%	14	25.93%
2	Weekly	14	25.00%	19	35.19%
3	Monthly	14	25.00%	7	12.96%
4	Rarely	9	16.07%	8	14.81%
5	Never	1	1.79%	2	3.70%
	Total	**50**	**100%**	**50**	**100%**

Table 4. Device used to access OERs.

S.N.	Access Method	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Smart Phone	28	38.36%	32	42.67%
2	Laptop/PC	26	35.62%	29	38.67%
3	Tablet	9	12.33%	4	5.33%
4	Library Computers	7	9.59%	10	13.33%

Table 5. Purpose of using OER.

S.N.	Purpose	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Self-learning	32	24.62%	35	26.52%
2	Supplementing course materials	21	16.15%	23	17.42%
3	Research purposes	22	16.92%	30	22.73%
4	Teaching and academic instruction	25	19.23%	21	15.91%
5	General use (Unspecified / Misc.)	12	9.23%	14	10.61%
6	For Examination	26	20.00%	16	12.12%

Table 6. Frequency of Use of OER Types

S. N.	Type of OER Used Most Frequently	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Lecture videos	25	45.45%	15	28.30%
2	E-books	15	27.27%	9	16.98%
3	Online courses	3	14.55%	13	24.53%
4	Open-access journals	7	12.73%	13	24.53%
	Total	**50**	**100%**	**50**	**100%**

Table 7. Source of access to OERs (Multiple responses allowed)

S.N.	Source of access	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Open-access databases	29	27.88%	27	26.47%
2	Institutional websites	21	20.19%	18	17.65%
3	Govt.-funded schemes (e.g., SWAYAM, NPTEL)	25	24.04%	29	28.43%
4	University digital repository	13	12.50%	11	10.78%
5	Egyankosh	7	6.73%	9	8.82%

Table 8. Level of Awareness about OERs.

S.N.	Awareness Level	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Very High	16	32.00%	18	36.00%
2	High	7	14.00%	9	18.00%
3	Moderate	24	48.00%	17	34.00%
4	Low	3	6.00%	6	12.00%
5	Not Aware	0	0.00%	0	0.00%
	Total	**50**	**100%**	**50**	**100%**

The Table 9 reveals the familiarity levels of respondents with Science and Social Science. In the Science category, the majority of respondents (52%) report being somewhat familiar with the subject, while 42% (21 individuals) are very familiar. Only 6% (3 individuals) claim not to be familiar with Science, indicating a generally strong familiarity with the subject among most respondents. In Social Science, the distribution is slightly skewed towards very familiar individuals, with 54% (27 individuals) reporting a high level of familiarity. 46% (23 individuals) are somewhat familiar with the subject, and no respondents reported being unfamiliar with Social Science, reflecting a high level of overall familiarity.

The Table 10 presents responses to a particular question regarding Science and Social Science. In the Science category, 66% (33 individuals) answered "Yes," while 34% (17 individuals) answered "No," indicating a positive response majority. In contrast, Social Science shows a slightly different trend, with 54% (27 individuals) answering "Yes" and 46% (23 individuals) answering "No." While a majority still

responded affirmatively, Social Science has a slightly higher percentage of negative responses compared to Science.

The Table 11 provides insights into the sources most commonly used by respondents for accessing information related to Science and Social Science. Data is collected through multiple responses. In both categories, online platforms such as YouTube and MOOCs are the most frequently used, with 38.61% (39 individuals) in Science and 39.81% (41 individuals) in Social Science relying on these resources. Social media follows closely, with 33.66% (34 individuals) in Science and 38.83% (40 individuals) in Social Science, indicating that digital platforms play a significant role in both subjects. Library resources are also commonly used, particularly in Social Science, where 19.42% (20 individuals) utilize them compared to 17.82% (18 individuals) in Science. University courses are the least used source in both fields, with 13.86% (14 individuals) in Science and 14.56% (15 individuals) in Social Science.

The Table 12 provides a breakdown of the most frequently used Open Educational Resource (OER) platforms by respondents in Science and Social Science. Data is collected through multiple responses. For both fields, e-PG Pathshala is the most commonly used OER platform, with 22.39% (45 individuals) in Science and 24% (48 individuals) in Social Science. SWAYAM follows closely, with 20.40% (41 individuals) in Science and 22% (44 individuals) in Social Science. Khan Academy is another popular platform, used by 19.40% (39 individuals) in Science and 16.50% (33 individuals) in Social Science. NPTEL also sees significant usage, with 10.45% (21 individuals) in Science and 11.50% (23 individuals) in Social Science. Other platforms, such as OpenStax, OER Commons, and Open University/Coursera, are used by fewer individuals. In Science, OpenStax is used by 10.45% (21 individuals), while in Social Science, it is used by 7% (14 individuals). OER Commons is used by 7.46% (15 individuals) in Science and 10.50% (21 individuals) in Social Science. The Open University, Coursera, and similar platforms are the least used, with just 1.99% (4 individuals) in Science and 1.50% (3 individuals) in Social Science.

The Table 13 presents the responses to a particular question regarding Science and Social Science. In the Science category, a large majority of respondents (90%, or 45 individuals) answered “Yes,” while 10% (5 individuals) answered “No,” indicating a strong positive response. In Social Science, 88% (44 individuals) answered “Yes,” and 12% (6 individuals) answered “No,” reflecting a similarly high level of positive responses, though slightly lower than that for Science. Overall, both fields show a dominant affirmative response, with Science having a marginally higher percentage of “Yes” responses compared to Social Science. This suggests a generally favorable outlook or agreement regarding the subject matter in both disciplines.

The Table 14 presents the responses to a particular statement regarding Science and Social Science. In the Science category, 46% (23 individuals) agreed with the statement, and 38% (19 individuals) were neutral, indicating a generally positive or indifferent stance. A smaller group, 16% (8 individuals), strongly agreed with the statement, while no respondents disagreed or strongly disagreed, showing a lack of strong negative responses. In the Social Science category, the majority (52%, or 26 individuals) agreed with the statement, and 22% (11 individuals) were neutral. A smaller portion, 12% (6 individuals), strongly disagreed while 2% (1 individual) disagreed. Notably, 12% (6 individuals) strongly disagreed, suggesting a stronger division in opinions compared to Science, where negative responses were absent.

The Table 15 highlights the features that respondents value in resources related to Science and Social Science. Data is collected through multiple responses. For Science, the most valued feature is free access, with 24% (24 individuals) indicating its importance Resources available in multiple formats follow closely, with 34% (34 individuals) noting this feature. Editable and adaptable content is valued by 12% (12 individuals), while licensing through Creative Commons is important for 9% (9 individuals). A smaller proportion, 7% (7 individuals), noted that resources requiring registration or payment are a concern. In Social Science, free access is similarly important, with 32% (32 individuals) of respondents citing it as a key feature. Editable and adaptable content and licensing through Creative

Commons are both valued by 15% (15 individuals) each. Resources available in multiple formats are also highly valued, with 29% (29 individuals) indicating this preference. Just 4% (4 individuals) noted that the requirement for registration or payment was a factor in their choice of resources.

The Table 16 presents the respondents' perceptions of how user-friendly resources are in Science and Social Science. In the Science category, 48% (24 individuals) consider the resources somewhat user-friendly, while 24% (12 individuals) find them very user-friendly. A smaller group, 28% (14 individuals), have a neutral stance, indicating that the resources are neither particularly easy nor difficult to navigate. Notably, no respondents in the Science category reported that the resources were difficult to navigate. In the Social Science category, a similar trend is observed, with 50% (25 individuals) considering the resources somewhat user-friendly, and 32% (16 individuals) rating them as very user-friendly. However, 14% (7 individuals) were neutral, and 4% (2 individuals) found the resources difficult to navigate, marking a slight increase in difficulty perception compared to Science.

The Table 17 illustrates the evaluation methods used by respondents in Science and Social Science to assess the reliability and quality of resources. Data is collected through multiple responses. In the Science category, citation count is the most commonly used evaluation method, with 35.5% (39 individuals) relying on this metric. Peer-reviewed sources follow closely at 22.7% (25 individuals), while recommendations from faculty and institutional affiliation each account for 22.7% (25 individuals) and 19.1% (21 individuals), respectively. In Social Science, citation count is again the leading evaluation method, used by 36% (41 individuals), slightly ahead of peer-reviewed sources at 28.1% (32 individuals). Recommendations from faculty are cited by 19.3% (22 individuals), and institutional affiliation is the least cited evaluation method, with 16.7% (19 individuals) of Social Science respondents relying on it.

The Table 18 presents the responses to a particular question regarding Science and Social Science. In the Science category, 54% (27 individuals) answered "Yes," indicating a majority affirmative response. A smaller group, 14% (7 individuals), answered "No," while 32% (16 individuals) responded with "Maybe," suggesting a moderate level of uncertainty or indecision. For Social Science, 52% (26 individuals) answered "Maybe," the highest response, indicating that a significant portion of respondents was uncertain or unsure. 44% (22 individuals) answered "Yes," while just 4% (2 individuals) answered "No."

Table 9. Familiarity with the concept of open educational resources (OER)

S.N.	Familiarity level	Science	Science (%)	Soc. Science	Soc. science (%)
1	Very familiar	21	42.00%	27	54.00%
2	Somewhat familiar	26	52.00%	23	46.00%
3	Not familiar	3	6.00%	0	0.00%
	Total	**50**	**100%**	**50**	**100%**

Table 10. Account on Any OER platform

S.N.	Response	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Yes	33	66.00%	27	54.00%
2	No	17	34.00%	23	46.00%
	Total	**50**	**100%**	**50**	**100%**

Table 11. Sources through which respondents first learned About OER

S.N.	Source	Science	Science (%)	Soc. Science	Soc. Science (%)
1	University courses	14	13.86%	15	14.56%
2	Library resources	18	17.82%	20	19.42%
3	Social media	34	33.66%	40	38.83%
4	Online platforms	39	38.61%	41	39.81%

Table 12. Usage of OER platforms.

S.N.	OER Platform	Science	Science (%)	Soc. Science	Soc. Science (%)
1	SWAYAM	41	20.40%	44	22.00%
2	NPTEL	21	10.45%	23	11.50%
3	e-PG Pathshala	45	22.39%	48	24.00%
4	Khan Academy	39	19.40%	33	16.50%
5	OpenStax	21	10.45%	14	7.00%
6	OER Commons	15	7.46%	21	10.50%
7	Open University, Coursera, etc	4	1.99%	3	1.50%

Table 13. Use of OER for academic or research purposes.

S.N.	Response	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Yes	45	90.00%	44	88.00%
2	No	5	10.00%	6	12.00%
	Total	**50**	**100%**	**50**	**100%**

Table 14. Perception of OER quality compared to traditional textbooks.

S.N.	Response	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Strongly Agree	8	16.00%	6	12.00%
2	Agree	23	46.00%	26	52.00%
3	Neutral	19	38.00%	11	22.00%
4	Disagree	0	0.00%	1	2.00%
5	Strongly Disagree	0	0.00%	6	12.00%
	Total	**50**	**100%**	**50**	**100%**

Table 15: Features associated with OER

S.N.	Feature	Science	Science (%)	Soc. Science	Soc. Science (%)
1	Free access	24	24.00%	32	32.00%
2	Editable and adaptable content	12	12.00%	15	15.00%
3	Licensing through creative commons	9	9.00%	15	15.00%
4	Available in multiple formats	34	34.00%	29	29.00%
5	Requires registration/payment	7	7.00%	4	4.00%

Table 16. Perceived user-friendliness of OER platforms.

S.N.	Response	Science	Science %	Soc. Science	Social Science %
1	Very user-friendly	12	24%	16	32%
2	Somewhat user-friendly	24	48%	25	50%
3	Neutral	14	28%	7	14%
4	Difficult tonavigate	0	0%	2	4%
	Total	**50**	**100%**	**50**	**100%**

Table 17. Methods for evaluating OER credibility.

S.N.	Evaluation Method	Science	Science %	Soc. Science	Soc. Science %
1	Institutional affiliation	21	19.1%	19	16.7%
2	Peer-reviewed sources	25	22.7%	32	28.1%
3	Citation count	39	35.5%	41	36.0%
4	Recommendation from faculty	25	22.7%	22	19.3%

Table 18. Institutional support for OER access at AMU.

S.N.	Response	Science	Science %	Soc. Science	Soc. Science %
1	Yes	27	54.0%	22	44.0%
2	No	7	14.0%	2	4.0%
3	Maybe	16	32.0%	26	52.0%
	Total	**50**	**100%**	**50**	**100%**

The Table 19 presents the types of support respondents in Science and Social Science have received or are aware of. Data is collected through multiple responses. In the Science category, the most commonly reported type of support is faculty initiatives, with 20.8% (21 individuals) citing it. Awareness programs or seminars follow closely at 18.8% (19 individuals). A significant portion, 31.7% (32 individuals), reported not being aware of any support, indicating a lack of awareness or availability of support resources. Digital repositories were noted by 14.9% (15 individuals), while library assistance was mentioned by 13.9% (14 individuals). In Social Science, the most commonly reported support type is digital repositories, with 20.6% (22 individuals) citing them. Awareness programs or seminars were reported by 18.7% (20 individuals), and faculty initiatives were mentioned by 16.8% (18 individuals). Similarly, 30.8% (33 individuals) of respondents reported not being aware of any support, which is quite close to the percentage in Science. Library assistance was mentioned by 13.1% (14 individuals).

The Table 20 presents respondents' views on the effectiveness of a particular program or resource in Science and Social Science. In the Science category, the majority of respondents, 80% (40 individuals), considered the resource or program somewhat effective. A smaller portion, 18% (9 individuals), found it very effective, while only 2% (1 individual) expressed a neutral opinion. No Science respondents considered the resource ineffective. In the Social Science category, 38% (19 individuals) rated the resource as very effective, and 40% (20 individuals) considered it somewhat effective. However, a larger proportion of Social Science respondents were neutral (10%, or 5 individuals) or felt that the resource was not effective (12%, or 6 individuals).

The Table 21 highlights the benefits experienced by respondents from using Open Educational Resources (OER) in both Science and Social Science. Data is collected through multiple responses. In the Science category, the most frequently reported benefit is the availability of up-to-date content, with 27.1% (45 individuals) indicating this as a key advantage. The ability to study at one's own pace follows closely, with 23.5% (39 individuals) mentioning this benefit. Reduced educational costs were also a significant benefit, reported by 25.3% (42 individuals). Easy access to diverse knowledge sources was noted by 21.1% (35 individuals). Only a small proportion, 3.0% (5 individuals), reported experiencing no significant benefits from using OER. In the Social Science category, reduced educational costs were the most frequently mentioned benefit, with 27.1% (46 individuals) of respondents citing it. The ability to study at one's own pace was also a major benefit for 25.9% (44 individuals). Availability of up-to-date content was highlighted by 21.8% (37 individuals), while easy access to diverse knowledge sources was noted by 20.0% (34 individuals). A slightly higher percentage of Social Science respondents (5.3%, or 9 individuals) reported no significant benefits from using OER.

The Table 22 presents respondents' perceptions of how a particular resource or program compares to previous ones in Science and Social Science. In the Science category, 40% (20 individuals) believe that the resource is slightly better than previous ones, while 36% (18 individuals) think it is about the same. A smaller portion, 22% (11 individuals), feel that it is much better. Only 2% (1 individual) feel that it is worse compared to previous resources. In the Social Science category, the majority, 72% (36 individuals), feel that the resource is slightly better than previous ones, which indicates a more positive perception in this field. A smaller group, 22% (11 individuals), consider the resource much better, while only 2% (1 individual) think it is about the same. A higher percentage of Social Science respondents (4%, or 2 individuals) feel the resource is worse compared to previous ones.

The Table 23 outlines the challenges faced by respondents in Science and Social Science when using Open Educational Resources (OER). Data is collected through multiple responses. In the Science category, the most significant challenge is the requirement for subscriptions and payments on some platforms, with 28% (35 individuals) identifying this as a barrier. Limited credibility of some sources is also a major concern, reported by 24.0% (30 individuals). Poor internet access is another key issue, with 23.2% (29 individuals) citing it. Lack of awareness about proper usage and licensing was mentioned by 15.2% (19 individuals), and difficulty in finding relevant materials was reported by 9.6% (12 individuals). In the Social Science category, limited credibility of some sources is the most significant challenge, noted by 26.1% (40 individuals). Subscription and payment requirements on some platforms also pose a challenge, affecting 20.3% (31 individuals). Difficulty in finding relevant materials is a more prominent challenge in Social Science than in Science, with 22.2% (34 individuals) reporting it. Lack of awareness about proper usage and licensing is cited by 17.0% (26 individuals), and poor internet access is reported by 14.4% (22 individuals).

Table 19. Existing institutional support for OERs.

S.N.	Support Type	Science	Science %	Soc. Science	Soc. Science %
1	Digital repository	15	14.9%	22	20.6%
2	Faculty initiatives	21	20.8%	18	16.8%
3	Library assistance	14	13.9%	14	13.1%
4	Awareness programs/seminars	19	18.8%	20	18.7%
5	Not aware of any support	32	31.7%	33	30.8%

Table 20. Effectiveness of OER in learning.

S.N.	Response Category	Science	Science %	Soc. Science	Soc. Science %
1	Very effective	9	18.0%	19	38.0%
2	Somewhat effective	40	80.0%	20	40.0%
3	Neutral	1	2.0%	5	10.0%
4	Not effective	0	0.0%	6	12.0%
	Total	**50**	**100%**	**50**	**100%**

Table 21. Benefits experienced from using OER.

S.N.	Benefit Experienced from Using OER	Science	Science %	Soc. Science	Soc. Science %
1	Reduced educational costs	42	25.3%	46	27.1%
2	Easy access to diverse knowledge sources	35	21.1%	34	20.0%
3	Ability to study at your own pace	39	23.5%	44	25.9%
4	Availability of up-to-date content	45	27.1%	37	21.8%
5	No significant benefits	5	3.0%	9	5.3%

Table 22. Accessibility compared to traditional textbooks.

S.N.	Response Category	Science	Science %	Soc. Science	Soc. Science %
1	Much better	11	22.0%	11	22.0%
2	Slightly better	20	40.0%	36	72.0%
3	About the same	18	36.0%	1	2.0%
4	Worse	1	2.0%	2	4.0%
	Total	**50**	**100%**	**50**	**100%**

Table 23. Challenges faced using OER.

S.N.	Challenges Faced in Using OER	Science	Science %	Soc. Science	Soc. Science %
1	Poor internet access	29	23.2%	22	14.4%
2	Lack of awareness on proper usage and licensing	19	15.2%	26	17.0%
3	Difficulty in finding relevant materials	12	9.6%	34	22.2%
4	Limited credibility of some sources	30	24.0%	40	26.1%
5	Subscription and payment required on some platforms	35	28.0%	31	20.3%

Findings of the Study

- The data reveal that the majority of postgraduate students from both the Faculty of Science and the Faculty of Social Science belong to the 23–24 years age group, indicating that most students pursue postgraduate studies soon after completing their undergraduate education. The 25–28 years age group forms the second largest category in both faculties, while comparatively fewer students fall within the 28–30 and 31–33 years age groups, suggesting that the awareness and use of OERs are most prevalent among younger cohorts.
- The survey maintained a perfect balance of respondents from both faculties (50 each), ensuring that comparative analysis is equitable and not biased by unequal representation.
- Smartphones and laptops/PCs are the most commonly used devices across both faculties, with Social Science students slightly more reliant on smartphones. Science students use tablets more often, while Social Science students make greater use of library computers, possibly indicating different access environments.
- Both faculties primarily use OERs for self-learning. Science students also heavily rely on them for examination preparation and teaching, while Social Science students show greater emphasis on research and supplementing course materials. This demonstrates varied academic motivations across disciplines.
- Science students mostly use lecture videos and e-books, showing a preference for structured and visual content. In contrast, Social Science students utilize a more even mix of lecture videos, online courses, and open-access journals, reflecting broader academic needs and preferences.
- Open-access databases and government-funded schemes are the most used sources in both faculties. Social Science students rely slightly more on government schemes like SWAYAM and NPTEL, while Science students lean more on institutional websites and university repositories.
- Awareness levels are generally high in both faculties. Most respondents rate themselves as having moderate to very high awareness, with Social Science students showing slightly more "very high" awareness than Science students.
- All students are either "very familiar" or "somewhat familiar" with OERs, and none reported being unaware. Social Science students display a slightly higher rate of being "very familiar" compared to Science students.
- Science students are more likely to have an account on OER platforms (66%) compared to Social Science students (54%). This might indicate higher individual initiative or departmental emphasis within Science faculties.
- Online platforms and social media are the leading sources of OER awareness. Library resources and university courses are less commonly cited, indicating a shift toward digital and informal learning channels.
- E-PG Pathshala, SWAYAM, and Khan Academy are the most widely used platforms in both faculties. Usage of other platforms such as OpenStax, Coursera, and OER Commons is relatively lower, especially among Science students.
- There is a strong academic orientation in OER use, with 90% of Science and 88% of Social Science students using them for academic or research purposes, indicating high perceived value.
- Most respondents agree that OERs are of equal or better quality compared to traditional textbooks. However, some Social Science students express disagreement, indicating some variability in perceived quality.

- The most valued features are free access and availability in multiple formats. Social Science students place slightly more value on adaptability and licensing through Creative Commons than Science students. Most students find OER platforms either very or somewhat user-friendly, with Social Science students showing slightly higher satisfaction but also a few cases of difficulty in navigation.
- Citation count and peer-reviewed sources are the most relied-upon credibility indicators. Science students slightly prefer faculty recommendations, while Social Science students emphasize peer-reviewed status more.
- More Science students believe AMU supports OER access than Social Science students. A larger proportion of Social Science respondents are uncertain about the support, indicating a communication gap.
- A significant portion of students in both faculties are unaware of existing support. Science students recognize more faculty initiatives, while Social Science students are more aware of digital repositories and awareness programs.
- Science students mostly find OERs "somewhat effective," while Social Science students show more "very effective" ratings but also a higher number of "not effective" responses, reflecting a broader range of experiences.
- Students across both faculties highlight reduced educational costs, flexible pacing, and access to updated content as key benefits. Science students value updated content slightly more, while cost savings are more emphasized in Social Sciences.
- Most respondents in both faculties find OERs better than traditional textbooks, with Social Science students showing greater satisfaction. A few Science students consider OERs comparable to traditional resources.
- Science students struggle more with subscription requirements and internet access, while Social Science students report more difficulty in locating relevant materials and understanding licensing. Credibility issues are prevalent in both groups.

CONCLUSION

This study offers a nuanced and comprehensive understanding of the interaction between postgraduate students at Aligarh Muslim University (AMU) and Open Educational Resources (OERs). The results indicate a predominantly positive disposition among students toward the use of OERs, supported by moderate to high levels of awareness and regular usage patterns. Nonetheless, the data also highlight notable disparities in engagement, influenced by variations in disciplinary requirements and access to infrastructural support. These observations underscore the need for targeted institutional interventions. To fully leverage the transformative potential of OERs, it is imperative that universities adopt a proactive and strategic approach—one that goes beyond mere provision of access to include the systematic integration of OERs into curriculum design, pedagogical practices, and academic policy frameworks. Investment in digital infrastructure, faculty, and student training, policy formulation, and outreach initiatives will be critical in repositioning OERs from supplementary educational tools to foundational components of an open, inclusive, and future-oriented higher education system.

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