

# Modes of access right to Electronic Information Resources accessible to the university libraries in West Bengal: A study

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**Abstract:** *The present study attempts to examine the modes of access right i.e. perpetual based access right and subscription based access right to Electronic Information Resources (EIRs) like e-journals, e-books and databases accessible to the university libraries in West Bengal. It is observed from this study that there was wide deviation observed in perpetual based access right to e-journal and database as well as in both modes of access right (perpetual and subscription) to e-book collection. However, in subscription mode access right to e-journal and database collection, more or less similar trend was observed towards less deviation among the university libraries in West Bengal. CV value also indicates that most wide deviation was observed in perpetual based e-book collection as its CV value was highest and less deviation was observed in subscription based e-journal collection among the university libraries in West Bengal as its CV value was lowest.*

**Key Words:** *Electronic Information Resources, Perpetual based access right, Subscription based access right, e-journals, e-books, databases, University libraries, West Bengal*

## 1. INTRODUCTION:

Electronic Information Resources (EIRs) represent an increasingly important component of the collection building activities of libraries. EIRs refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the internet or locally (Konappa, 2014). There are many approaches of categorization of EIRs such as by distribution medium (online, CD ROM, web) or by content (bibliographic, full text) or by type of format (e-book, e-journal, database) (Padma, Ramasamy, Chellappandi. and Kathiravan, 2014). For this study the approaches of categorization of EIRs are considered by type of format (e-book, e-journal, and database).

In general, access right is the right of a property owner to have access to his/ her property. In this context, the access right is the permission that is granted to a library to have access to EIRs. There are two types of access right to EIRs namely perpetual based and subscription based access.

Perpetual based access designates the right to permanently access the licensed materials paid for during the period of the license agreement (Stemper and Barribeau, 2006). Subscription based access allows for a specific period of time for a set price. Basically it is annual basis. Access to resources which were being subscribed is discontinued by the publisher after the expiry of the subscription period unless perpetual access is agreed upon (Chandel and Saikia, 2012).

## 2. OBJECTIVES: The objectives of the study are:

- to study the current status of EIR collection with respect to mode of access-right in the university libraries in West Bengal; and
- To identify the deviation between EIR collection with perpetual based access right and subscription based access right in the university libraries in West Bengal.

## 3. METHODOLOGY:

### 3.1 scope and coverage of the study

There are total 36 universities in West Bengal, of which 27 universities are government aided and remaining 09 universities are private (University Grants Commission, n.d.). This study covered all the libraries of government aided universities which were offering educational programmes in the regular mode in the state of West Bengal. Netaji Subhas Open University, Kolkata is an open university imparting education in the distance learning mode. So, this state aided open university was not considered in this study. Therefore, the scope and coverage of this study included total 26 university libraries in West Bengal.

Based on the availability and accessibility of EIRs in the university libraries in West Bengal, EIRs were broadly classified into three categories namely e-journal, e-book and database. Various modes of access right to all

categories of EIRs accessible to the university libraries in West Bengal were taken into consideration here. Open access EIRs available online were not considered in this study. Both subscribed, purchased EIRs and/or EIRs accessed through consortia by the university libraries in West Bengal were taken into consideration in this study.

In view of the above consideration of EIRs for this study, it is found from the collected data that out of the total 26 government aided university libraries in West Bengal under this study, 17 university libraries had EIR collection. The remaining nine university libraries in West Bengal had neither online EIR, whether subscribed and/ or purchased, nor accessed through consortia. So, the data were analysed on the basis of data collected from the 17 university libraries in West Bengal covering EIR collection.

Out of the total 26 government aided university libraries in West Bengal under this study, seventeen university libraries had EIR collection and the list of the university libraries was presented in the Table 3.1.1.

**Table 3.1.1: List of all the university libraries having EIR collection in West Bengal**

Sl. No.	Name of the University	Establishment year	Location	Type
1	Aliah University	2007 (In 21 <sup>st</sup> century)	Urban	General
2	Bankura University	2014 (In 21 <sup>st</sup> century)	Non-urban	General
3	Bidhan Chandra Krishi Viswavidyalaya	1974 (Before 21 <sup>st</sup> century)	Non-urban	Special
4	Jadavpur University	1955 (Before 21 <sup>st</sup> century)	Urban	General
5	Maulana Abul Kalam Azad University of Technology	2001 (In 21 <sup>st</sup> century)	Urban	Special
6	Presidency University	2010 (In 21 <sup>st</sup> century)	Urban	General
7	Rabindra Bharati University	1962 (Before 21 <sup>st</sup> century)	Urban	General
8	Sidho-Kanho-Birsha University	2010 (In 21 <sup>st</sup> century)	Non-urban	General
9	The West Bengal National University of Juridical Science	2004 (In 21 <sup>st</sup> century)	Urban	Special
10	University of Burdwan	1960 (Before 21 <sup>st</sup> century)	Non-urban	General
11	University of Calcutta	1857 (Before 21 <sup>st</sup> century)	Urban	General
12	University of Kalyani	1960 (Before 21 <sup>st</sup> century)	Non-urban	General
13	University of North Bengal	1962 (Before 21 <sup>st</sup> century)	Non-urban	General
14	Uttar Banga Krishi Viswavidyalaya	2001 (In 21 <sup>st</sup> century)	Non-urban	Special
15	Vidyasagar University	1981 (Before 21 <sup>st</sup> century)	Non-urban	General
16	Visva-Bharati	1921 (Before 21 <sup>st</sup> century)	Non-urban	General
17	West Bengal University of Animal and Fishery Sciences	1995 (Before 21 <sup>st</sup> century)	Urban	Special

Table 3.1.2 shows that out of the total 26 government aided university libraries in West Bengal under this study, nine university libraries did not have any EIR collection.

**Table 3.1.2: List of the university libraries not having EIR collection in West Bengal**

Sl. No.	Name of the University	Establishment year	Location	Type
1	Cooch Behar Panchanan Barma University, Cooch Behar	2012 (In 21 <sup>st</sup> century)	Non-urban	General
2	Diamond Harbour Women's University, South 24 Parganas	2013 (In 21 <sup>st</sup> century)	Non-urban	General
3	Kazi Nazrul University, Burdwan	2012 (In 21 <sup>st</sup> century)	Non-urban	General
4	Raiganj University, Uttar Dinajpur	2015 (In 21 <sup>st</sup> century)	Non-urban	General
5	The Sanskrit College and University, Kolkata	2015 (In 21 <sup>st</sup> century)	Urban	Special
6	The West Bengal University of Health Sciences, Kolkata	2002 (In 21 <sup>st</sup> century)	Urban	Special
7	The West Bengal University of Teachers' Training, Education Planning and Administration, Kolkata	2015 (In 21 <sup>st</sup> century)	Urban	Special
8	University of Gaur Banga, Malda	2007 (In 21 <sup>st</sup> century)	Non-urban	General
9	West Bengal State University, North 24 Parganas	2007 (In 21 <sup>st</sup> century)	Non-urban	General

### 3.2 Data collection

A descriptive survey method was adopted for collecting data and other information required for this study. For that purpose, one well-structured questionnaire for the University Librarian / Library In-Charge was designed for

collecting data from the university libraries in West Bengal. The filled up questionnaires were collected from the university libraries for data analysis and interpretation.

Data for this study were collected over the years and finally those were checked, rectified and presented here based on the latest data on collection received during the first quarter of the last year.

**3.3 Statistical methods used**

The collected data were classified, tabulated, thoroughly analyzed and graphically represented according to the objectives. Statistical analysis of the data collected from the university libraries was done accordingly applying various statistical tools and techniques such as Percentile, Ratio, Mean, Standard Deviation (SD) and Coefficient of Variance (CV). In order to test the hypothesis, Chi-Square test had been applied at 5% level. The values of the statistical analyses were worked out with the help of Microsoft Excel.

**4. ANALYSIS:**

Table 4.1 unearths that 70.59 per cent of the university libraries under study did not have any e-journal with perpetual access right and 23.53 per cent of the university libraries had less than 100 e-journals with perpetual access right. Only 05.88 per cent university libraries had above 500 e-journals with perpetual access right.

**Table 4.1: Distribution of university libraries with respect to mode of access right to e-journal**

E-journal					
Perpetual			Subscription		
Collection	No. of libraries	%	Collection	No. of libraries	%
None	12	70.59	01-5000	09	52.94
Less than 100	04	23.53	5001 - 10000	05	29.41
More than 500	01	05.88	More than 10000	03	17.65
Total	17	100.00	Total	17	100.00

As far as subscription based access right to e-journal is concerned, 52.94 per cent university libraries had subscription based access to e-journal in their EIR collection ranging between 01 to 5000. Further, 29.41 per cent university libraries had individual e-journal collection ranging between 5001 to 10000 and only 17.65 per cent university libraries had more than 10000 individual e-journal collection with subscription based access right.

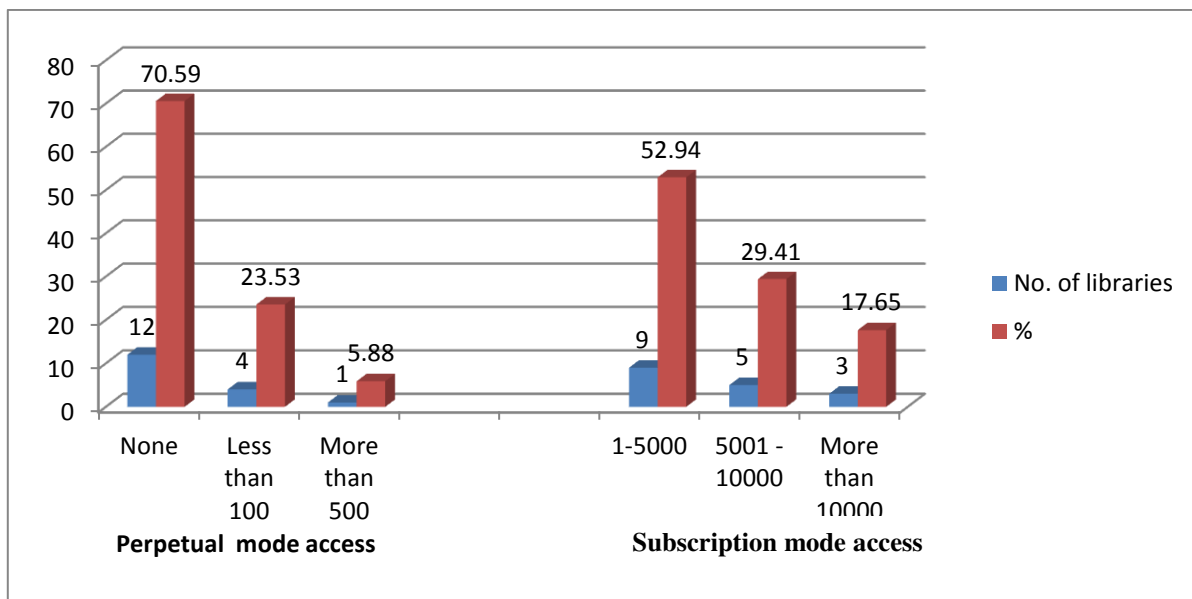


Figure 4.1: Distribution of university libraries with respect to mode of access right to e-journal

Table 4.2 reveals that 35.29 per cent university libraries did not have access to any e-book collection with perpetual access right and 41.18 per cent university libraries had e-book collection in perpetual mode ranging between 01 to 2000. Only 11.76 per cent of the university libraries had access to e-book collection with perpetual access mode ranging between 2001 to 5000. It is interesting that only 05.88 per cent university libraries had more than 50000 perpetual access e-books.

**Table 4.2: Distribution of university libraries with respect to mode of access right to e-book**

E-book					
Perpetual			Subscription		
Collection	No. of libraries	%	Collection	No. of libraries	%
None	06	35.29	None	14	82.35
01- 2000	07	41.18	Less than 500	02	11.76
2001 – 5000	02	11.76	More than 5000	01	05.88
5001-10000	00	00.00	-----	-----	-----
10001-15000	01	05.88	-----	-----	-----
More than 50000	01	05.88	-----	-----	-----
Total	17	100.00	Total	17	100.00

As far as subscription based access to e-book is concerned, 82.35 per cent of the university libraries did not have any e-book collection in subscription based access and 11.75 per cent university libraries had less than 500 e-book collection in subscription mode access. Only 05.88 per cent of the university libraries had access to more than 5000 subscription based e-books.

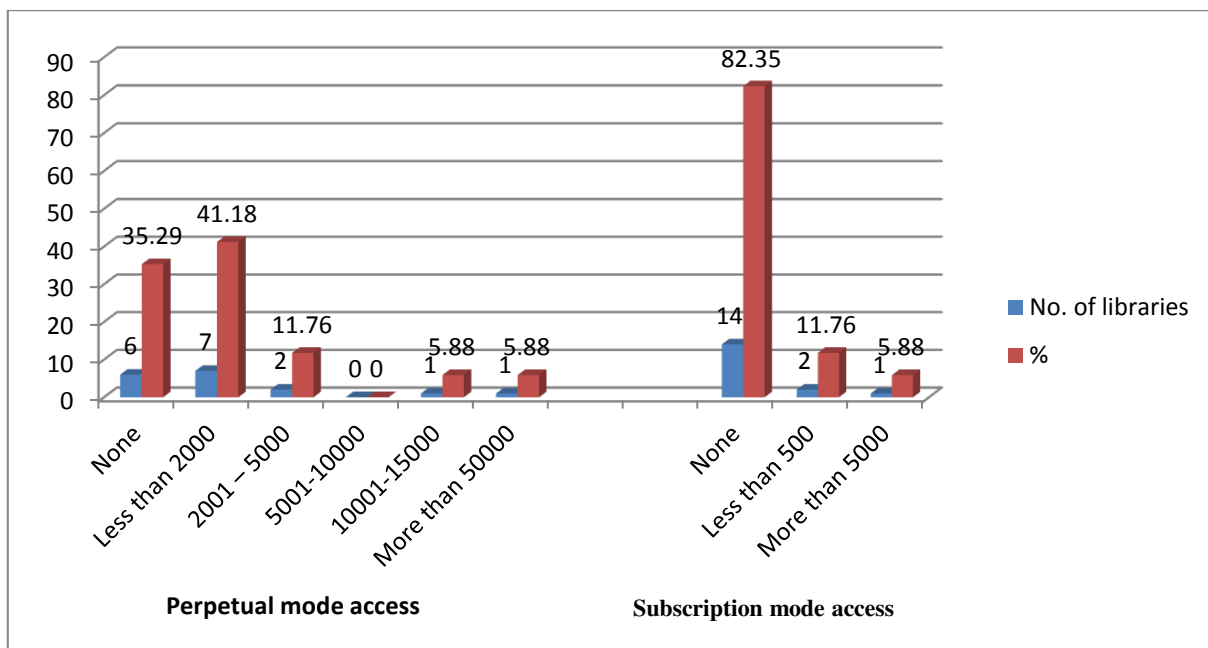


Figure 4.2: Distribution of university libraries with respect to mode of access right to e-book

Table 4.3 depicts that 41.18 per cent university libraries did not have any database with perpetual mode access. Further 52.94 per cent university libraries had less than 05 databases and only 05.88 per cent university libraries had more than 05 databases with perpetual based access.

Table 4.3: Distribution of university libraries with respect to mode of access-right to database

Database					
Perpetual			Subscription		
Collection	No. of libraries	%	Collection	No. of libraries	%
None	07	41.18	None	03	17.65
Less than 05	09	52.94	Less than 05	07	41.18
Above 05	01	05.88	05-10	05	29.41
	----	----	More than 10	02	11.76
Total	17	100.00	Total	17	100.00

On the other hand, 41.18 per cent university libraries had less than 05 databases in their collection in subscription mode access and 29.41 per cent of the university libraries had database collection ranging between 05 to 10. Only 11.76 per cent university libraries had access to more than 10 databases in subscription mode.

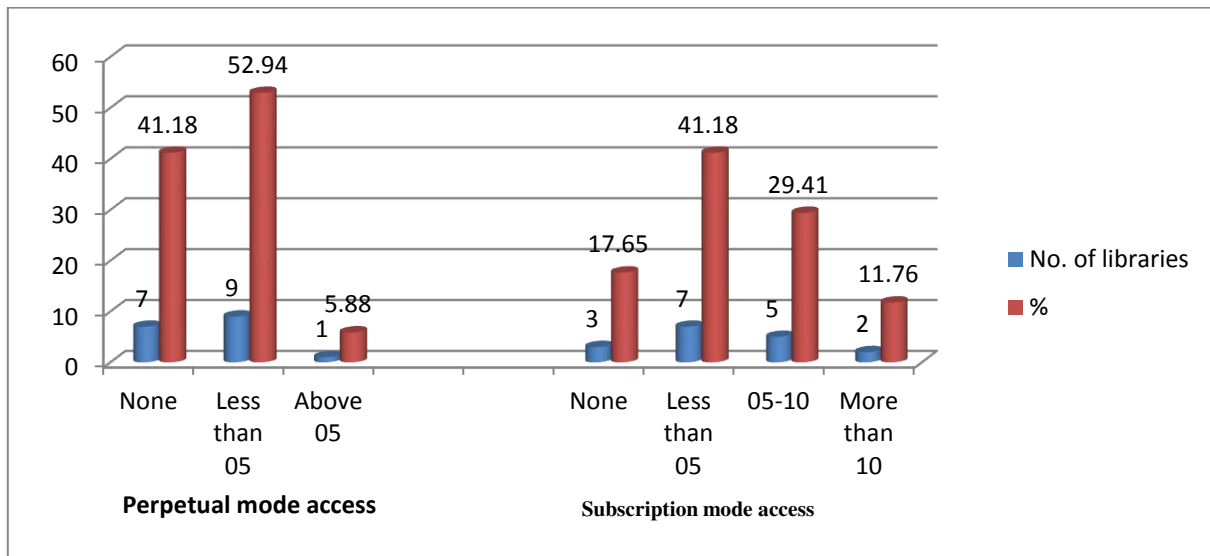


Figure 4.3: Distribution of university libraries with respect to mode of access-right to database

Table 4.4 provides the descriptive statistics for current status of EIR collection with respect to mode of access-right. It has been found that all the university libraries had access to e-journals in subscription mode, the number of which varied from 58 to 11522. The mean, SD and CV values of e-journal collection accessed through subscription mode were 5262.12, 4048.90 and 0.77 respectively, whereas only 29.41 per cent university libraries had access to e-journals in perpetual mode, the number of which varied from 01 to 944 with mean, SD and CV values being 217.60, 407.69 and 1.87 respectively.

Table 4.4: Current status of EIR collection with respect to mode of access-right

Type of EIR	Mode of access	No. of libraries	% (Libraries)	Mean	Minimum	Maximum	SD	CV
E-journal	Perpetual	05	29.41	217.60	01	944	407.69	1.87
	Subscription	17	100.00	5262.12	58	11522	4048.90	0.77
E-book	Perpetual	11	64.70	7641.00	08	58036	17179.45	2.25
	Subscription	03	17.65	3117.00	81	9138	5214.40	1.67
Database	Perpetual	10	58.82	01.90	01	08	2.23	1.73
	Subscription	14	82.35	06.42	01	21	5.14	0.80

In the same fashion, 64.70 per cent of the university libraries had e-book collection with perpetual access right and only 17.65 per cent of the university libraries had access to e-books through subscription mode with average value of perpetual and subscription mode being 7641 and 3117 respectively. The SD and CV estimated for perpetual based access to e-books were 17179.45 and 2.25 respectively. For subscription based access to e-books, SD and CV were 5214.40 and 1.67 respectively. It is interesting to note the minimum and maximum number of perpetual access e-books in the university libraries, the number of which varied from 08 to 58036 while number of e-books accessed through subscription mode varied from 81 to 9138 among the university libraries in West Bengal.

Likewise, 82.35 per cent of the university libraries had access to databases in subscription mode, the number of which varied from 01 to 21 in number and their average, SD and CV values were 6.42, 5.14 and 0.80 respectively. On the other hand, 58.82 per cent of the university libraries had databases with perpetual access right and it varied from 01 to 08 and their average, SD and CV values were 1.90, 2.23 and 1.73 respectively.

Table 4.4 also reveals the average number, SD and CV of EIR collection with respect to their mode of access right and it indicates that there was wide deviation observed in perpetual based access right to e-journal and database as well as in both modes of access right (perpetual and subscription) to e-book collection as CV  $\geq 1$  indicates a relatively higher variation. However, in subscription mode access right to e-journal and database collection, more or less similar trend was observed towards less deviation among the university libraries in West Bengal. CV value also indicates that most wide deviation was observed in perpetual based e-book collection as its CV value was highest and less deviation was observed in subscription based e-journal collection among the university libraries in West Bengal as its CV value was lowest.

Table 4.5 reveals that out of the total subscribed e-journals (N=11169), only 09.74 per cent were perpetual based and 90.26 per cent were subscription based and all e-journals accessed through consortia were subscription based i.e. no university library had access to perpetual based e-journals through consortia.

**Table 4.5: Distribution of total number of e-journals accessible to the university libraries with respect to mode of availability and mode of access right**

Mode of availability	E-journals					
	Perpetual (1088)		Subscription (89456)		Total (N = 90544)	
	No. of e-journal	%	No. of e-journal	%	No. of e-journal	%
Subscribed (N=11169)	1088	(100.00) {09.74}	10081	(11.27) {90.26}	11169	{100.00}
Consortia (N=79375)	00	(00.00) {00.00}	79375	(88.73) {100.00}	79375	{100.00}
Total	1088	(100.00)	89456	(100.00)	90544	

Percentage with respect to ‘Mode of access right’ given within (Round bracket) & percentage with respect to ‘Mode of availability’ given within {Second bracket}

Further, out of the total number of subscription based e-journals accessible to the university libraries (N = 89456), only 11.27 per cent were subscribed by the university libraries and 88.73 per cent were accessed through consortia.

Ratio of e-journal with respect to modes of access right

Total perpetual based: Total subscription based = 1088 : 89456 i.e. 01 : 82.22

As far as e-book is concerned, Table 4.6 depicts that out of the total e-books accessible to the university libraries (N = 93402), all i.e. 100 per cent were subscribed by the university libraries, of which 89.99 per cent were in perpetual based access right and only 10.01 per cent were in subscription based access right.

**Table 4.6: Distribution of total number of e-books accessible to the university libraries with respect to mode of availability and mode of access right**

Mode of availability	E-books					
	Perpetual (N = 84051)		Subscription (N = 9351)		Total (N = 93402)	
	No. of e-book	%	No. of e-book	%	No. of e-book	%
Subscribed	84051	(100.00) {89.99}	9351	(100.00) {10.01}	93402	{100.00}
Consortia	00	(00.00) {00.00}	00	(00.00) {00.00}	00	{00.00}
Total	84051	(100.00)	9351	(100.00)	93402	

Percentage with respect to ‘Mode of access right’ given within (Round bracket) & percentage with respect to ‘Mode of availability’ given within {Second bracket}

Ratio of e-book with respect to modes of access right

Total subscription based : Total perpetual based = 9351 : 84051 i.e. 01 : 8.99

Table 4.7 expresses that out of the total databases accessible to the university libraries (N = 109), only 16.98 per cent were in perpetual based access right, whereas 83.02 per cent were in subscription based access right. Out of the total databases accessed through consortia (N= 56), only 17.86 per cent were perpetual based and 82.14 per cent were subscription based.

**Table 4.7: Distribution of total number of databases accessible to the university libraries with respect to mode of availability and mode of access right**

Mode of availability	Databases					
	Perpetual (N = 19)		Subscription (N = 90)		Total (N = 109)	
	No. of	%	No. of	%	No. of	%

	databases		databases		databases	
Subscribed	09	(47.37) {16.98}	44	(48.89) {83.02}	53	{100.00}
Consortia	10	(52.63) {17.86}	46	(51.11) {82.14}	56	{100.00}
Total	19	(100.00)	90	(100.00)	109	

Percentage with respect to 'Mode of access right' given within (Round bracket) & percentage with respect to 'Mode of availability' given within {Second bracket}

Likewise, it is also seen that out of the total perpetual databases (N=19), 47.37 per cent were subscribed and 52.63 per cent were accessible through consortia. Further, out of the total subscription based databases (N=90), 48.89 per cent were subscribed and 51.11 per cent were accessed through consortia.

Ratio of database with respect to modes of access right

Total perpetual based: Total subscription based = 19 : 90 i.e. 01 : 4.74

## 5. CONCLUSION:

In the current context, EIR collection and its proper delivering access in the library is an essential constituent of academic infrastructure. As it stands, EIR has established itself as an indispensable resource for university libraries and their users. The experience of the study of the university libraries in West Bengal shows that, with the right combination of sufficient EIR collection and its delivering access, EIRs can be very helpful to the university library users in accessing required information.

It is observed from this study that not all the university libraries in West Bengal possessed EIR collection yet and among those having EIR collection, there was a wide disparity seen in the various modes of access right to EIRs accessible to the university libraries in West Bengal.

Therefore, the university authority and library should concentrate on collection of EIRs (in terms of quality and quantity) to meet the needs of library users. Without sufficient EIR collection, effective delivery of EIR services is not possible at all. It is seen that there are two types of mode of access right to EIRs – one is perpetual based access right and another is subscription based access right. The university libraries should plan for acquiring publisher hosted cloud based long term perpetual access to EIR collection with archived (previous) collection of EIRs.

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