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Towards standardizing the library circulation metadata

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Abstract. The main purpose of the study is to provide metadata vocabulary (MV) for easy sharing, migration, and analysis of library circulation transaction (LCT) data across the libraries and library management software (LMS) to facilitate evidence-based decision-making and improved library user services. In the context of a library, the practice of using standard MV (e.g., MARC21) for describing bibliographic data is very prominent. We find various initiatives, like BIBFRAME by the Library of Congress which is grounded in linked data techniques for the future of bibliographic data on the Web and broadly in the network world. However, when it comes to managing other kinds of data, e.g., circulation and acquisition transaction data, we do not find any single vocabulary or initiative to refer to. We find the usage of different metadata elements for describing and capturing similar data across the various LMS tools. This leads to several issues and their consequences as are documented in this paper. These issues necessities the development of a metadata vocabulary for circulation transaction data (CTD) which can be referred to and used universally across the LMS. The study is a step towards the development of a reference MV for effective and efficient management of CTD in the library field.

Keywords: Metadata vocabulary, Library circulation transaction metadata, Library management software, Linked Data, Methodology.

1 Introduction

In the current global milieu, the importance of metadata is well-known to everyone. They provide essential information about resources and are critical in structuring and organizing them in a way that aids in easier retrieval and discovery of information. They assisted in “eliminating libraries’ dependence on card catalogs and moving them to much needed online environment” [1]. They became more popular and prevalent during the 1990s after the introduction of “Dublin Core Metadata Element Set”. This not only provided consistency to library cataloguing practices but also the incentive to specify more elements that further describe resources and enhance retrieval. Ever since then, the field of Library and Information Science has seen great transformation and growth with respect to metadata. New standards like Marc 21 (https://www.loc.gov/marc/bibliographic/), MODS (https://www.loc.gov/standards/mods/), VRA core (https://www.loc.gov/standards/vracore/), EAD (https://www.loc.gov/ead/), etc. were developed for different types of resources and for

different scenarios. The pre-existing AACR [3] and MARC [4] also aided this progressive development by setting rules for how each metadata or data element within a system has to be populated. The Library of Congress, in 2011, introduced BIBFRAME (https://www.loc.gov/bibframe/) to replace MARC and turn library data into linked data (LD) [5] leveraging the semantic web (SW) technologies, such as URI, HTTP URI, RDF, Ontology, and SPARQL. The aim is to "re-envision and, in the long run, implement a new bibliographic environment for libraries that makes "the network" central and makes interconnectedness commonplace [6]." These efforts are primarily focused on bibliographic resources and their description, and this is evident across all the library management software (LMS). E.g., Koha (https://koha-community.org/), an open-source LMS supports MARC21 for bibliographic descriptions of library items. While changing times and exponential growth of resources created a need for setting up metadata standards for the easy sharing and conversion of bibliographic data, there is no study found in the literature focusing on standardizing the metadata for easy sharing, transfer, and analysis of circulation transaction data (CTD)."

Traditionally, the library circulation transaction data (LCTD) is used for revealing and reporting various facts, e.g., transaction history of library users and items, library usage in terms of different types of library users and subject areas, frequent members and frequent issued items, etc. These reports are used as tools for data analysis and decision-making for collection development, funding, infrastructural, and other resource allocation purposes. However, often these analyses are based on limited resources (e.g., limited metadata) and confined to a single library data and single LMS. Irrespective of the significance of circulation transaction data, to our knowledge, there is no single metadata vocabulary (MV) exists for describing and capturing such data.

As it is known, CTD is mainly described and governed by the choices of individual LMS developers and vendors. As a consequence, we see different metadata elements for describing and capturing the same data across the various LMS. This leads to interoperability issues, creates confusion [7] and especially this becomes a critical issue when the data migration takes place from one LMS to another LMS. We follow a manual approach to mapping the metadata. We apply this process every time we consider the migration and every library repeats the process. Also, it is not that always one-to-one metadata correspondence will be found and hence, there is a possibility of information loss. Besides, it also creates obstacles in large-scale data analysis, especially when the input data is not limited to a single library, but rather a network of libraries using different LMS. These issues necessitate the development of a MV for CTD in the library field which can be referred to and used universally across the LMS. The study is a step toward developing of a reference MV for the effective and efficient management of CTD.

The primary objective of the present study is to provide a Library Circulation Transaction Metadata (LCTM) vocabulary for describing, capturing, sharing, and distributing CTD of library resources. The goal is to aid in the systematic repurposing of circulation data. The main contributions of the study are: (1) provides a LCTM vocabulary

for managing library item CTD; (2) provides a circulation transaction metadata crosswalk; (3) provides a step-by-step approach to the design of metadata vocabulary; (4) identifies the various facets of LCTD.

The rest of the paper is organized as follows: section 2 discusses the LMS circulation module and its various components, defines LCTD and their significance. Section 3 describes the LCTM vocabulary design approach and the vocabulary, and section 4 discusses the metadata schema mapping challenges. Section 5 concludes the paper by summarizing the present study, LCTM vocabulary applications, study limitations, and future research.

2 Background

2.1 LMS and Circulation Module

LMS is a specialized computer program designed to help libraries automatize their operations [8]. They provide a variety of functionalities like acquisition and cataloguing, circulation, serial control, patron management, report generation, and OPAC (online public access catalogue). LMS handles data related to library items (e.g., books, proceedings, and magazines), users, and staff. In particular the circulation module aids in the management of resources in real-time. The circulation module of LMS facilitates the operations, such as intra and inter library loan (ILL), group circulation, membership management, reminder generation, fiscal management, and the maintenance of library resources. Broadly, the circulation module deals with three kinds of data, such as data about the borrower, the resources being borrowed, and the loan itself. More specifically, the module handles the data such as check-out and check-in data, renew and recall data, hold and reserve, IIL, resource hold and reserve data, and fiscal data such as overdue charges, lost, and damage charges [9].

2.2 Library Circulation Transaction Data

Transactional data (TD) is data that is captured from a transaction(s). It records various information, e.g., transaction time, place of transaction occurred, kind of transaction taken place, etc., at the time of transaction. Simply put, metadata that describes transactional data is called transactional metadata (aka use metadata). With reference to libraries, TD is recorded during processes like acquisition and circulation. The TD is created every time a library patron or library staff interacts with a database. In the case of libraries, they are, e.g., MYSQL or other RDBMS databases containing cataloguing and patron information. Note that while circulation data (CD) is a usage data, it is only a part of the transaction as the latter also includes serials and digital resources which is not within the scope of this study.

As stated above, circulation involves all kinds of procedures related to the lending and return of library resources. LMS typically does not have specific schemas for CD. This is because CD is a combination of user data and bibliographic data, in which only the latter has a standard. The metadata of CD is chosen by each organization based on pre-existing templates as provided by an LMS or is custom-made as per the objective of an organization.

3 LCTM Design: Methodology and Result

The methodology for the creation of MV has generalized all other metadata design approaches in a nutshell [10, 11]. Although the basic steps in all the methodologies are similar, the way they are performed differs immensely based on the objectives, MV involved, and so forth. In the current study, we followed a bottom-up approach [11]. The vocabulary is designed by extracting, analyzing, mapping, and reusing the existing circulation transaction specific metadata elements from various LMS tools. Overall, the LCTM vocabulary development involves five steps: *selection of LMS*, *element extraction*, *element selection and organization*, *schema mapping*, and *LCTM vocabulary design*. They are described below.

Step 1: Selection of LMS

This step involves the identification and selection of LMS for the present study. We enlisted in a total of 30 LMS tools including both open-source (e.g., Koha, PhpMyLibrary, NewGenLib, Open Biblio, OPALS, Evergreen) and propitiatory (e.g., Alice for Windows, Atriuum, Bibliotheca, AUTOLIB, eLibrary, SLIM, SOUL, Virtua). The tools were identified from the literature searched through various databases, such as GoogleScholar, LISA, and Scopus. The terms used for the extraction of literature are: library management software, library management system, library automation, open source, and proprietary. From the list of identified LMS, the present study considered seven, and they are e-Granthalaya (https://egranthalaya.nic.in/), Evergreen (https://evergreen-ils.org/), Koha (https://koha-community.org/), NewGenLib (https://sourceforge.net/projects/newgenlib/), OCLC WorldShare Management Services (WMS) (https://www.oclc.org/en/worldshare-management-services.html), SOUL (https://soul.inflibnet.ac.in/), and Virtua (https://www.iii.com/products/virtua/). A combination of inclusion and exclusion criteria was applied as depicted in Table 1 to filter out and select the LMS for the study. Koha, an open-source LMS software was selected because of its popularity among the libraries and the easy availability of necessary information for the study. Despite being proprietary, WMS, SOUL, and Virtua were chosen because of the availability of documentation and vicinity libraries equipped with that software. Evergreen had a demo version which had the features required for the study and NewGenLib had a free version of the software along with detailed documentation.

Table 1. LMS selection inclusion/ exclusion criteria

Inclusion criteria	Exclusion criteria
1. Open source/ proprietary	1. Difficulty in installation due to incongruity of system requirements
2. Ease of installation	2. Lack of proper documentation
3. Availability of proper documentation	3. No libraries within vicinity make use of the software
4. Availability of libraries which use that particular software	4. Lack of regular updation and support
5. Availability of demo version (applicable to proprietary software)	

Step 2: Element Extraction

Here, the metadata elements were extracted from the selected LMS through various means, e.g., by directly obtaining from the database tables, by gathering transaction logs and reports collected from various libraries, creating transaction records using demo versions, and from the documentation. The elements were extracted and stored

in an Excel spreadsheet (.xlsx). Tables 2 & 3 present a glimpse of a transaction dataset extracted from Virtua obtained from a library.

Table 2. Shows a glimpse of transaction dataset

Date	Transaction	Patron	Patron Class	Item	Bib Id	Location	TRN	Prev Due	Login Mode	Call Number	Item Class	CheckOut Date
18-08-2022 13:57	Late Renewal	2111378	PGP	76765	141758	[redacted]	13801046	14-08-2022 23:59	Self-Check	658.421 BAN	Book	02-09-202
16-08-2022 18:45	Late Renewal	1770	Staff-Contract Deposit	81837	158632	[redacted]	13791006	12-08-2022 23:59	Self-Check	894.814092 ANA	Book	31-08-202

Table 3. Shows a glimpse of transaction dataset

Transaction	Patron	Patron Class	Item	Bib Id	Location	TRN	Machine Name	Prev Due	Login Mode	Username	Reserve Item	Item Class	Owning Location	Shelf Loc
Regular Renewal	2021009	FPM	83162	165687	[redacted]	13634736	171.76.86.247	########	Internet	-1	No	Book	[redacted]	[redacted]
Regular Renewal	nikhiln21	PGP	C35840	143602	[redacted]	13634735	ec2-3-7-236-35.ap-south-1.compute.amazonaws.com	########	Internet	-1	No	Book	[redacted]	[redacted]

Step 3: Element Selection and Organization

This step involves selecting and organizing the elements resulting from the previous step 2. Here, first, the redundant and irrelevant elements were removed. E.g., *ISBN* is part of the circulation metadata in NewGenLib and Evergreen. The ISBN is used to uniquely identify a resource. However, the same can be done with a*ccession number*/ *item barcode* which are retained as they are more relevant to the circulation process. It is worth noting that all LMS use item barcodes during check-out and check-in in most cases, the accession number acts as the item barcode. Other elements like *shelving schema*, *coded location*, *patron family name*, etc. were removed as they repeated information already mentioned in other values like *patron given name* or *shelving location*. After, removing the redundant and irrelevant terms, the remaining terms were grouped together based on their similar properties. This step resulted in the classifying of the elements into categories, such as elements for item level description, user description, library details, fiscal data, and transaction and its sub-categories like general information, check-in, check-out, etc. (see step 5 for more details). A glimpse of the circulation transaction metadata of Koha is classified and presented in Table 4.

Table 4. A snippet of circulation transaction metadata extracted from Koha and grouped as per the defined categories

KOHA		
Item Details	User Details	Check-In
Barcode/ Item Number/Biblio Number	Borrower number/Card number	Return Date/ Check-in date
Call Number	Patron	Recalls queue
Title	Primary phone	Placed on
Volume Number	Primary email	Expires on/ Due date
Publisher	Patron Category	
Item Type		Holds
Item Home Library	Check-out	Hold Starts on/ Hold date
Shelving Scheme	Checked Out on	Priority
Item Holding Library/ Current Library	Due Date	Status
	Renewal	
	Total Renewals	

Step 4: Schema Mapping

This step involves analyzing the meaning of each term resulting from the previous step 3 and mapping those that have an equivalent or similar meaning. At this stage, the translation for each term in another LMS is specified. Note that it is not possible to find an equivalent to all the terms as some LMS may have different contexts, user bases, and objectives. The mapping is conducted by first syntactically and later semantically analyzing the relationships between terms of different LMS. Syntactic mapping emphasizes the morphology of the terms. E.g., as in Table 5, *accession number, accession*

no. and *acc no* are syntactically similar. Similarly, for example, the *call number* and *call no*. The semantic mapping, on the other hand, considers the meaning of the elements, a kind of information an element provides. E.g., *member name* and *patron name*. Similarly, the *item barcode* and *bib id*. Although, syntactically dissimilar, they refer to the same thing. The mapping is made only if an equivalent, either through syntactic or semantic matching is found or else is left blank. A snippet of the mapping elements is shown in Table 5 (for complete mapping, see Table 7). It is worth noting that performing relative crosswalks is difficult for two schemas and is exponentially complex when more than two schemas are involved [12], as in the present study. A detailed discussion on this topic is provided in section 4.

Table 5. A snippet of the metadata crosswalk

OCLS WMS	NewGenLib	SOUL	Virtua	Koha	e-Granthalaya	Evergreen
				ITEM details		
Item OCLC number	-	-	Item ID	-	-	-
Item barcode	Item Barcode	-	Bib Id	Barcode/ Item Number/Biblio Number	Item Id	Barcode
-	Accession Number	Accession no.	-	-	Acc No	-

Step 5: LCTM vocabulary

This step involves creating LCTM vocabulary for managing circulation data. The vocabulary is built on the mapping results discussed in the previous step 4. The LCTM elements are organized into five main categories, such as *Item*, *User*, *Institution/ Library*, *Fee*, and *Transaction*. The transaction metadata is further organized into seven sub-categories, such as *General*, *Check-out*, *Check-in*, *Renewal*, *ILL* (Inter Library Loan), *Holds*, and *Others*. Examples of item-level elements for circulation are *item id*, *item issued*, *material*, *item branch name*, *item holding library*, *shelving location*, etc. Similarly, user-level elements for circulation are *item issued count*, *patron barcode*, *total books allowed*, *patron borrower category*, etc. General transaction metadata elements are, e.g., *circulation id*, *transaction type*, *machine name*, *login mode*, *transaction location*, etc. The LCTM elements are presented in the last column (extreme right) of Table 7, Annexure A. The element names are defined in their descriptive form. The LCTM vocabulary consists of in total 107 elements. Of them, 22 elements are to facilitate the description of circulation items, 9 elements for user description, 13 elements for managing fiscal data, and so forth as presented in Table 6.

Table 6. Statistics of LCTM metadata

Item	User	Library	Fee	Transaction							Total
				General	Check-out	Check-in	Renewal	ILL	Holds	Others	
22	9	3	13	8	9	6	3	19	10	5	107

4 Discussion

Schema mapping is observed to be one of the critical steps in producing LCTM vocabulary. Mappings are usually done to support data conversion or interoperability between two systems with different schemas. In this study, mapping is used as a base to instantiate and create LCTM. In schema mapping, various properties of metadata like *structure*, *syntax*, *content rules*, etc. are usually taken into consideration. As a result, there are several challenges to executing a mapping as described below.

1. The level of granularity always differs from schema to schema. Many-one and one-many relationships often occur as a consequence of varied levels of granularity [13, 14]. In the case of such relationships, explicit instructions have to be given as to which target element a particular metadata has to be mapped to. Although it is trivial in most cases, sometimes resolutions are necessary. E.g., content values for *item permanent shelving location*, *item holding location*, and *item branch name* in OCLC WSM will all go to a single element location in NewGenLib. But when mapping is done from NewGenLib to OCLC WSM, there will be confusion as to where the content value of *location* will belong.
2. Even when both schemas have the same level of granularity, no two schemas can be totally equivalent [14]. We observe that there is always a field present in one schema that is missing in another. This is called a *one-none* relationship. [13] As a consequence, there could be a significant information loss.
3. More often than not, we find fuzzy matches [15]. Every LMS is built for different purposes which in turn is reflected in the metadata. E.g., in the case of a LMS like SOUL which was built for institutions primarily, it includes metadata like *university name*, *department*, *course designation*, etc., while a generically defined LMS like Koha has corresponding metadata like *patron library*, *patron category*, etc.
4. Varied Semantics for the same syntax makes it harder to map. E.g., *status* in NewGenLib can imply both the status of an *item* and the status of a *holding request*. This makes mapping difficult at the record level when NewGenLib is the target LMS. Varied content rules may also contribute to a similar drawback.
5. Crosswalks are one-way or lateral [2]. For example, a mapping can be made from Virtua to SOUL but the opposite cannot be done using the same crosswalk. E.g., the content values for *category*, *department*, and *course designation* in SOUL can be put under patron class in Virtua. But this crosswalk is one-way in the sense that it does not provide clarity on where the content value of the patron class in Virtua has to be sent to when a conversion is done in the opposite way. The creation of two-way or bilateral crosswalks is relatively complex even when only 2 schemas are involved.

All of these issues affect the proper element-to-element mapping. As a consequence, there could be a significant information loss especially when moving from an enriched schema to a relatively simple schema. These challenges also hint at the necessity of a standard metadata vocabulary.

5 Conclusion

With the immense potential the CTD holds, creating a metadata vocabulary for them will make unlocking their potential easier and more effective. A vocabulary for CTD will enlist all the necessary metadata in a consistent structure and make the analysis easier. The present study developed a metadata vocabulary LCTM designed following a step-by-step approach for easy sharing and distribution, migration, and analysis of LCTD across the libraries and LMS systems to facilitate evidence-based decision-making and improved library user services. It provides an exhaustive list of elements (in total 107 elements) covering the various aspects (e.g., resource item, patron, ILL, check-in, check-out, fee) of library circulation transactions. LCTM can be used by the various LMS vendors in designing and facilitating the circulation transaction data management. It can be used as a switching schema wherein all the LMS convert their data

in LCTM format instead of building a crosswalk to another schema. The present study provided a crosswalk of circulation metadata for seven LMS tools and documented the challenges faced during the study. The present study is a step forward towards the ultimate aim of designing and developing of circulation transaction metadata framework, in the similar line of BIBFRAME, grounded to LD and semantic web techniques and technologies for the future of circulation transaction data on the Web and in general in the network world. As part of the future study, we aim to validate the vocabulary against another set of LMS circulation metadata and by the library community through a workshop mode.

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Annexure A

Table 7. Provides a crosswalk between circulation metadata of seven LMS. The last column in the right lists the developed LCTM metadata

OCLS WMS	NewGenLib	SOUL	Virtua	Koha	e-Granthalaya	Evergreen	LCTM
				ITEM details			
Item OCLC number	-	-	Item ID	-	-	-	Item ID
Item barcode	Item Barcode	-	Bib Id	Barcode/ Item Number/Biblio Number	Item Id	Barcode	Item Barcode
-	Accession Number	Accession no.	-	-	Acc No	-	Accession Number
item call number	-	Call Number	Call Number	Call Number	Call No	Call Number	Call Number
item title	Title / Details	Title / Item Issued	TransactionItem	Title	Title	Title	Item Issued
-	Author	Author	-	-	Author	Author	Author
-	Edition	-	-	-	Edition	-	Edition
-	Volume	-	-	Volume Number	Vol No/ Issue	-	Volume Number
-	Publisher	Publisher	-	Publisher	Publisher	-	Publisher
-	Series	-	-	-	-	-	Series
item material format	Physical /Presentation form	Material	Item Class	Item Type	Material	-	Material
Item Branch Name / Item Primary Institution name	-	-	Owning Location	Item Home Library	-	Owning Library	Item Branch Name
item shelving scheme	-	Shelving scheme	-	Shelving Scheme	-	-	Shelving Scheme
Item holdings location	-	-	-	Item Holding Library/ Current Library	-	-	Iten holding library
Item holdings quantity	-	No. of Copies	-	-	-	-	Item holdings quantity
item permanent shelving location	Location	Location/ Book Location/Shelving Location	Shelf Location	Shelving Location	Physical Location	Shelving Location	Shelving location
item last issued date	-	-	-	-	-	-	Item last issued date
item lending policy	-	Issue Restricted(y/n)	-	-	-	-	Item lending policy
-	-	-	Override (y/n)	-	Override(y/n)	-	Override(y/n)
-	-	-	Authorized By	-	-	-	Authorized By
Item Status Current Status	Status	Book status	New Item Status	-	Current Status	-	Item status
Item Record Type	-	Collect. type	-	Collection	Collection Type	-	Collection type
				USER details			
Item Issued Count	Total	-	-	-	Already Issued	Items out	Item Issued Count
-	-	-	Patron Barcode Type	-	-	-	Patron Barcode Type
Patron Barcode	Patron Id	Member code/ member ID	Patron ID	Borrower number/Card number	Member No	Patron Barcode	Patron Barcode
Patron Given Name	Patron Name/ Name / Patron	Member Name	Patron	Patron	Member Name	-	Patron Given Name

							Patron Surname
Patron Phone Number	-	-	-	Primary phone	Phone	-	Patron Phone Number
Patron Email Address	-	-	-	Primary email	E-Mail	-	Patron Email Address
-	-	Total books allowed		-	-	-	Total books allowed
Patron Borrower Category	Patron category	Category	Patron Class/Patron Type	Patron Category	Member Category	-	Patron Borrower Category
Patron Custom Category 1	-	-	-	-	Member Sub-category	-	
Patron Custom Category 2	Department	Department	-	-	-	-	
Patron Custom Category 3	Course	Course designation	-	-	Designation	-	
Patron Custom Category 4	-	-	-	-	Entitlement	-	
			INSTITUTION/LIBRAY details				
Institution Name	-	University Name	-	-	-	-	University Name
Patron Home Branch Name	Library Name / Patron's library	Library name	-	Patron Library/ Home Library	-	Home Library	Patron Home Branch Name
-	-	Library Code	-	-	-	-	Library Code
			TRANSACTION details				
			GENERAL				
-	-	-	TRNId	-	Cir ID	Circ ID	Circulation ID
Event Type	-	-	Transaction	-	-	circ_type	Transaction Type
-	-	-	Machine Name	-	-	-	Machine Name
-	-	-	Login Mode	-	-	-	Login Mode
-	Name	-	Username	Username	-	-	User Name
-	-	-	Location	-	-	Location	Transaction Location
Circulation Event Date/Time Start	-	-	Date	-	-	-	Start Date
Circulation Event Date/Time End	-	-	-	-	-	-	End Date
			CHECK-OUT				
Loan checked out date	Check-out date	Issue date	CheckOut date	Checked Out on	Issue Date	Checkout Date	Issue date
item due date	Due Date	due date	Due Date	Due Date	Due date	Due date	Due date
-	-	-	-	-	Issue Time	-	Issue Time
-	-	-	-	-	Received By	-	Received By
-	-	-	-	Checked out from	-	Checkout Library	Checked out from
-	-	-	-	-	-	Checkout Staff	Checkout Staff
-	-	-	Group Request (y/n)	-	-	-	Group Request
-	-	Group name		-	-	-	Group name
-	-	Group code				-	Group code

				CHECK-IN			
-	-	Return Date	-	Return Date/ Check-in date	Return Date	Checkin Date	Return Date
Loan Notification Count	-	-	-	-	-	-	Loan Notification Count
Item Days Overdue	Overdue	-	-	-	-	Overdue	Item Days Overdue
Recalled items	-	-	-	Recalls queue	-	-	Recalled items
Item Recalled Date	-	-	-	Placed on	-	-	Item Recalled Date
Item Recall Due Date	-	-	-	Expires on/ Due date	-	-	Item Recall Due Date
				RENEWAL			
-	-	-	-	Total Renewals	-	Max Renewals	Max Renewals
item renewal count	-	-	-	Renewals Remaining	-	Remaining Renewals	Remaining Renewals
-	-	-	-	Renewal due date	-	-	Renewal due date
				ILL			
-	-	Request Reference	-	-	-	-	Request Reference
-	-	Date of Request	-	-	-	-	Date of Request
Patron ILL Approved Flag	-	-	-	-	-	-	Patron ILL Approved Flag
Patron ILL Blocked Flag	-	-	-	-	-	-	Patron ILL Blocked Flag
OCLC Request ID	-	-	-	-	-	-	ILL Request ID
Created request count	-	-	-	-	-	-	Total request count
Request patron pickup location	-	-	-	Pickup At/ Pickup Library	-	PickUp Library	PickUp Location
Lending Institution name	-	Source library	-	-	-	-	Lending Institution name
Borrowing institution name	-	Destination library	-	-	-	-	Borrowing institution name
Borrower need before date	-	-	-	-	-	-	Borrower need before date
Borrower cancelled date	-	-	-	-	-	-	Borrower cancelled date
ILL Lender Filled Turnaround Time	-	-	-	-	-	-	ILL Lender Filled Turnaround Time
Lender assigned date	-	Transfer date	-	-	-	-	Lender assigned date
Lender shipped date	-	Send date	-	-	-	-	Lender shipped date
Borrower received date	-	Arrival date/ Issue Date/Receive Date	-	-	-	-	Borrower received date
Request closed date	-	-	-	-	-	-	Request closed date
Borrower returned date	-	-	-	-	-	-	Borrower returned date
Cancelled request count	-	-	-	-	-	-	Cancelled request count
Expired request count	-	-	-	-	-	-	Expired request count
				HOLDS			

Hold Request ID	-	-	-	-	-	Hold ID	Hold Request ID
Hold Request Type	-	-	-	-	-	Hold Type	Hold Request Type
Hold Request Placed Date	Reservation date	Reserve Date	-	Hold Starts on/ Hold date	Reserve Date/Time	Request Date	Hold Request Placed Date
-	-	-	-	-	-	Available Date	Available Date
Hold Fulfillment Method	-	-	-	-	-	-	Hold Fulfillment Method
-	Queue Number	-	-	Priority	-	-	Queue Number
Hold Approval Status	Status	-	-	Status	-	-	Hold Status
Hold Expiration Date	-	-	-	Hold Expires on	-	-	Hold Expires on
Hold Needed Before Date	-	-	-	-	-	-	Hold Needed Before Date
Hold Count	-	-	-	Total Holds	-	-	Total Holds
				OTHERS			
Item Date Declared Absent Start	-	-	-	-	-	-	Item Date Declared Absent Start
Item Date Declared Absent End	-	-	-	-	-	-	Item Date Declared Absent End
Item Declared Absent Date	-	-	-	-	-	-	Item Declared Absent Date
-	-	-	Note Type (NoteTypec)	-	-	-	Note Type
-	-	Remark/Note	Notes	Non-Public Note	Remarks	Alert Msg	Note
				FEE details			
-	-	-	-	-	-	Total Notices / Last Notice	Total Notice
Fiscal Charging Institution Name	-	-	-	-	-	-	Fiscal Charging Institution Name
-	-	-	-	-	-	Billing Location	Billing Location
Fiscal Payment Method	-	-	-	-	-	-	Fiscal Payment Method
Fiscal Transaction Staff Full Name	-	-	-	-	Library Staff	-	Fiscal Transaction Staff Full Name
Fiscal Bill Reason	-	Fine Reason	-	-	Payment received for	-	Fiscal Bill Reason
Fiscal Action Type	-	-	-	-	-	-	Fiscal Action Type
Fiscal Transaction Date	-	-	-	-	Date of Payment	-	Fiscal Transaction Date
-	id	Receipt No. /Slip No.	-	-	-	Bill #	Bill ID
Fiscal Transaction Amount	Total Overdue	Fine Amount	-	Fine	Fine Due	Balance owed/ Total Billed	Fine Due
Event Fiscal Amount Paid	overdue paid	-	-	-	Fine Collected	Payment Received/Total paid	Fine Collected
Fiscal Currency	-	-	-	-	-	-	Fiscal Currency
-	-	-	-	-	-	Payment Pending	Payment Pending (y/n)