Machine Readable Cataloguing Format (MARC 21) to Organize Indigenous Knowledge (IK) Sources for Sustainable Development of Sri Lanka

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Abstract

Today Indigenous or traditional knowledge is a critical factor for sustainable development. That knowledge can be defined as the practices maintained and developed by people, generally, it is utilized in rural areas, rural People have extended histories of interaction with the natural environment. But IK has long been ignored in the world. The main focus of this research was to develop a standard Machine Readable Catalogues (MARC) format to record, share and promote the usage of IK in Sri Lanka. This study will also formulate a field selection guide and maintain uniformity in bibliographic records of IK sources in library catalogs. The study employed an online survey method to collect data from stratified randomly selected Online Public Access Catalogues (OPACs) to examine the existing metadata structure of IK. The study Disclosed that IK is not well managed and Also self-developed methods have been used by some libraries. In this case, Library professionals have not been at the forefront in terms of organizing IK also identified. Researchers proposed MARC format contains metadata about other publication types such as palm-leaf, photos, films, videos, or audio cassettes, dramas, stories, songs containing folklore, and oral pieces that are not supported by the current library catalogues. Consequently, the proposed format will promote overlooked indigenous knowledge both by members and outsiders for sustainable development.

Keywords: MARC 21, Indigenous Knowledge, Traditional Knowledge, OPAC, Sustainable Development, Sri Lanka

Introduction

Indigenous knowledge (IK) is a popular word Nowadays and indigenous or traditional knowledge has become a critical factor for sustainable development. Sri Lanka possesses an enormous and exceptional amount of IK that has its roots in pre-historical times. It has been deciphered differently in different places but is generally Taken as a local or traditional knowledge that the Indigenes carried with them from the past through oral tradition. As the authors Rajasekaran, Martin, and Warren (1992) defined, "Indigenous knowledge (IK) is the systematic knowledge acquired by indigenous peoples through the accumulation of experience, informal experiments, and close understanding of the environment in a particular culture." According to Grenier (1998), IK is "unique, traditional and local knowledge existing within and developed around specific conditions of women and men indigenous to the particular geographic area". It is stated that "indigenous knowledge system is a cumulative body of knowledge and belief, handed down through generation by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment" (Ranasingha,2008). Thus, as a Features of in the IK.

Indigenous Knowledge loses its power and validity when the particular socio-cultural context where it produced is changed

Indigenous Knowledge is not destructive

Indigenous Knowledge is mostly practical

Indigenous Knowledge is environmentally friendly

Indigenous Knowledge is more humane

Indigenous Knowledge is not based on consumerism and not profit-driven

Indigenous Knowledge is time tested

Indigenous Knowledge is not fully explored and more research needs to be done

Indigenous Knowledge can be defined as the practices that people maintained and developed, In generally utilized rural areas, who have extended histories of interaction(Interlinkage) with the natural environment. IK encompasses valuable information In the country's cultural, social, economic, and religious practices for using resources, rituals, and spirituality. But As time passes by IK has been ignored or neglected by mainstream western sciences. so it has directly affected sustainable development. Present professionals pointed out that contemporary knowledge is mainly generated based on traditional knowledge. For instance, Sri Lanka also has a traditional Ayurvedic system that has simple medical treatments that can be cured of any diseases using wild-crafted herbs and ingredients prepared using traditional methods to attract the foreign eye to our county. Nevertheless, the main obstacle of IK is often transferred orally to the next generations and seldom in any form of documentation. When a knowledgeable or old person dies, a whole knowledge disappears with them. Therefore, the special effort needed to be taken to record, understand, document, and disseminate IK for preservation, transfer or adoption, and adaptation elsewhere. However, this research is being done to develop a standard machine-readable catalog (MARC 21) for reporting and promoting IK usage in Sri Lanka. MARC is an acronym for Machine-Readable Catalogue or Cataloguing. It is not, however, a kind of catalogue nor a method of cataloguing but a system by which data elements within bibliographic records are uniquely labeled for computer handling. MARC is an implementation of the international standard "Information and documentation - Format for information exchange". (ISO 2709-1996)

Objectives

The main objectives of this study are to develop a standard Machine Readable Cataloguing (MARC 21) format to record, share and promote the usage of IK in Sri Lanka. This study will also formulate a field selection guide and maintain uniformity in bibliographic records of IK sources in library catalogues.

Methodology

The study employed an online survey method to collect data from the stratified sampling method that used selected Online Public Access Catalogues (OPAC) with available IK sources to examine the existing metadata structure of IK. Accordingly, data was collected from five university libraries (established between 1924-1979), the Colombo National Museum Library (1877), and the National Library of Sri Lanka (1990). IK resources available in those libraries include palm leaves, photographs, films, videos or audio cassettes, plays, stories, and folklore and lyrics.

Results

The study revealed that IK is not well managed or recorded in the libraries in the sample. The self-developed methods have been used for some libraries. Library professionals have not been at the forefront in terms of organizing IK also identified. Researchers proposed that the MARC format contains metadata about other publication types such as palm-leaf, photos, films, videos, or audio cassettes, dramas, stories, and songs containing folklore and oral pieces that are not supported by current library catalogues remain. Consequently, the proposed format will promote overlooked indigenous knowledge both by members and outsiders for sustainable development.

Conclusion and recommendations

Through word of mouth and experiences, a considerable amount of IK is still shared down from generation to generation. So yet, there are no systematic efforts that have been taken in Sri Lanka to protect its Indigenous Knowledge. On the other hand, the country's recognized knowledge system is at the point of extinction. Most of the records of this expertise (palm leaf scrolls) piled in Buddhist temples around the world will be erased in the next few decades owing to ignorance. The preparation of bibliographies is inadequate to guarantee the survival of these IK. They should be copied, classified, indexed, and preserved right away. Therefore, this research seeks to promote and preserve indigenous knowledge that has been overlooked by members and outsiders for sustainable development through this proposed model.

Table 1 Field select table

Tag	Field name	Subfields	Example
040	Cataloging source - (NR)	$a –Original cataloging agency $c –Transcribing agency $d -- Modifying agency (R)	040 ## $a DLC $c DLC $d gwhs
082	Dewey Decimal Classification Number	$a - Classification number (R) $b - Item Number (NR) $m - Standard or optional designation (NR) $q - Assigning agency (NR) $2 - Edition Number [Edition of DDC Used]	082 $a388 $bWIC $222
100	100 Main entry -- Personal name - - (primary author) (NR; there can be only one main entry)	$a –Personal name $b -Numeration $c -- Titles and other words associated with a name (R) $q -- Fuller form of the name $d -- Dates associated with a name (generally, year of birth)	100 1# $a Gregory, Ruth W. $q (Ruth Wilhelme), $d 1910
110	Main Entry−Corporate Name	$a - Corporate name or jurisdiction name as entry element $b - Subordinate unit $c - Location of meeting	110$a United States. $bPresident (1981-1989: Reagan)

		$d - Date of meeting or treaty signing $e - Relator term	
111	Main Entry-Meeting Name	$a - Meeting name or jurisdiction name as entry element $c - Location of meeting $d - Date of meeting $e - Subordinate unit $f - Date of a work $n - Number of part/section/meeting	111 $aSymposium on the Underground Disposal of Radioactive Wastes $d(1979) $cOtaniemi, Finland
130	Main entry -- Uniform title -- (NR)	$a -- Uniform title $p -- Name of part/section of a work (R) $l -- Language of a work $s -- Version $f -- Date of a work	130 0# $a Bible. $p O.T. $p Psalms.
245	245 Title Statement (NR)	$a-Title $b-Remainder of title (NR) $c-Statement of responsibility, etc. $f-Inclusive dates (NR) $g-Bulk dates (NR) $h - Medium (NR) $k-Form $n - Number of part/section of a work (R) $p - Name of part/section of a work (R) $s-Version(NR) $6-Linkage(NR) $8 - Field link and sequence number (R)	245 14 $a The DNA story : $b a documentary history of gene cloning / $c James D. Watson, John Tooze.
250	Edition statement (NR)	$a -- Edition statement	250 ## $a 6th ed.
260	Publication, distribution, etc. (Imprint) (R)	$a - Place of publication, distribution, etc. (R) $b - Name of publisher, distributor, etc. (R) $c - Date of publication, distribution, etc. (R)	260 ## $a New York : $b Chelsea House, $c 1986.
300	Physical description (R)	$a - Extent (R) $b - Other physical details (usually illustration information) $c -- Dimensions (cm.) (R) $e -- Accompanying material (for example, "teacher's guide" or "manual")	300 ## $a 139 p. : $b ill. ; $c 24 cm.

336	Content Type carrier	$a – Content type carrier	336 $a Two-Dimensional moving images
337	Media Type	$a – Media Type	337 $a Video
338	Carrier Type	$a – Carrier Type	338 $a Audio Roll
490	Series statement (No added entry is traced from field) (R)	$a -- Series statement (R) $v -- Volume number (R)	490 1# $a Colonial American craftsmen
500	General note (R)	$a -- General note (Used when no specialized note field has been defined for the information. Examples: Notes regarding the index; the source of the title; variations in title; descriptions of the nature, form, or scope of the item.)	500 ## $a Includes index.
505	Formatted contents note (R)	$a -- Formatted contents note	505 0# $a Pride and prejudice -- Emma
520	Summary, etc. note (R)	$a -- Summary, abstract, or annotation $b -- Expansion of summary note	520 ## $a This basic guide to parliamentary procedure tells how to conduct and participate in a meeting properly.
650	Subject added entry	$a -Topical term $v -Form subdivision (R) $x -General subdivision (R) $y -Chronological subdivision (R) $z -Geographic subdivision (R) $2 -Source of heading or term used with 2nd indicator of 7)	650 #0 $a Theater $z United States $v Biography $v Dictionaries.
700	Added entry -- Personal name	$a –Personalname $b -Numeration $c -- Titles and other words associated with a name (R) $q -Fuller form of name $d -Dates associated with a name (generally, year of birth) $e -Relator term (such as ill.) (R) $4 - Relator code (R)	700 1# $a Baldridge, Letitia.

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