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Some Cataloging Or Real Cataloging !?

cataloging remotely accessed electronic resources : a viewpoint for discussion

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"We librarians love action and will seek an answer no matter what " (1)
Michael Gorman

Abstract

This paper presents a viewpoint about cataloging Remotely Accessed Electronic Resources , Starting with revealing a professional personal experience , then it deals briefly with the field scene discussing some of its solutions , suggestions , and sub-issues of the main issue . The paper critically treats AACR2 and its adaptation for cataloging those resources , especially 2002 Revision . Ending with presenting a new vision about the adaptations needed to solve the issue , exploring types of adaptations and its areas , it proposes a dichotomy for the code . Finally it presents a preliminary frame to implement such a vision .

Keywords

Electronic Resources, Cataloging

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Introduction :

Originally , it's a multiple choices question of three answers , " No cataloging" or " Some cataloging" or " Real cataloging " , I think the first answer is already omitted by individual workers and parties of our field , "some cataloging of internet resources is far to be preferred than no cataloging " [(2)] mentioned earlier by Eric jul , so it's two choices left, we have to adopt one , for me it's a built-in-answer question : Real Cataloging .

This brief paper explores some dimensions of the issue as I can especially the description part of it . Explains the reasons behind my believe that " Real Cataloging " must be the answer .

The paper consist of four parts , the first reveals a personal experience, the second deals briefly with the field scene for such issue , the AACR2 and its applicability and changes is the subject of the third one , in the fourth , I includes a vision for cataloging Remotely Accessed Electronic Resources (RAER) ; a vision that governs the whole paper .

1.Personal Experience:

1.1 Background

In 1999, I began an idea of bibliographic work, which is " Arab Media Web sites Directory", I found my self in a middle of dilemma, what data elements for each web site may be included in the record? , how it will be cataloged ? , displayed?, accessed ? .

The beginning was so naive, with 8 data elements, I was not satisfied for sure, scientifically or professionally, so I started a methodology for discovering cataloging rule for that. I consulted the sources to find a ready-made tool that help, I got nothing, I found my self into a reading list of manuals, standards, articles ..etc, minimizing this list was a priority , then I triggered the start .

I decide to do my own rules, a satisfying one for the current purpose, putting in mind it's a bibliographic work not a library catalog. I made many steps at many stages to determine and define the data elements that can represent those web sites, those steps are:

1. Analysis of representative sample of web sites in each category the work covered.
2. Study previous web sites directories (printed , online , offline – Arabic and international ones)
3. Analysis of AACR2, especially 9, 12 chapters.
4. Analysis of MARC's 856 field and other related fields.

5. Analysis of ISO 690-2 for bibliographic citation of electronic resources.

6. Many Arab and international readings and manuals were scanned.

I made a definition sheet for each field I would use, it was acting like a field ID, consisted of; 1) field name, 2) definition, 3) importance, 4) source of extraction, 5) previous tools equivalent, 6) field values, 7) field language, 8) field source of information, and 9) special notes, this sheet was just for my local use to control the process.

After all that, I got, somehow, a better clear image and reached something satisfying, after many practice-based modifications, I got something suitable for the bibliographic work.

1.2 Experience Output:

I got, finally, 26 fields with many sub fields in eight data areas with another two areas, one for descriptors and linking references, the other was a local use one, sure the field repeatability was considered, see figure 1, here are some comments about it:

1. Fields Omitting :

Some fields are omitted here based on a logical principle, like email; as long as the library catalog or bibliographic work isn't a communication tool, so why we put such factual communicating information, further discussion of catalog roles and purposes will come later.

2. URL Area :

There are one primary URL, alternative URLs as the resource shows, and non active previous URL (one or more), the alternatives are for; the same site's another language (content & interface), mother institution (for easier access), another URL for the same site, mirror site, text format variations (PDF, HTML), operating system variations (IBM, Mac), and active previous URL. Actually, I didn't find this alternative URLs concept in any of scanned literature.

3.Hosting & Designing Data:

I include hosting and designing data, as long as it mentioned clearly on the site or sometimes derived from any external sources, I saw it as an equivalent of the same role for the printer or manufacturer in traditional case, some voices suggested removing them out of the record, but I saw it representing a usefulness in determining some kind of value of resource.

4.Notes:

Are derived from the notes stated in AACR2's related chapters, as it is or modified to fit the new resource, and from web sites analysis. Some are free others

are controlled with verbal constant expression. Regardless the used terminology, here are some examples:

1- Construction Status; under construction, ongoing construction.

2- Search Options; especially with databases.

3-Relationship; like translation, merging, dividing, containing, supplementing, sister site ...etc, and relation with the printed analog of the resource.

4- Previous Issues Archive or Index; searchable index, non-searchable index, just a list of previous issues, and no index.

1.Title and Statement of Responsibility Area

1.1 Title Proper

1.2 Alternative Title

1.3 Other title Information

1.4 Parallel Title

2. URL Area

2.1 URL Proper

2.2 Alternative URLs

- Language
- Mother Institution
- Another URL
- Mirror Site
- Text Format Variations
- Operating System Variations
- Active Previous URL

2.3 Previous URL

3. Publishing Area

3.1 Language

3.2 Place

3.3 Publisher

3.4 Co-Publisher

4. Issuing Area

4.1 Issuing Frequency

4.2 Updating Frequency

4.3 Updating Date

4.4 Content Nature (form)

4.5 Issuing Nature (form)

4.6 Available Issues

5.Physical Description Area

5.1 Text Format

6. Access Area

6.1 Access Methods

6.2 ISSN

7. Notes Area

8. Creditability Area

8.1 Cataloging Date

8.2 Description Based On

Hosting & Design Data

3.5 Place

3.6 Name

3.7 URL

3.8 Role

Figure 1 : Abstracted Plain Data Sheet

1.3 Final Conclusion

As a consequence of such deep theoretical and practical efforts I already made, it floated in my mind; why we don't have a cataloging code to catalog RAER, especially all what available isn't efficient to undertake this role. In the same time I found out some characteristics belongs to such resources that make it easier to get one code to catalog them.

There are similarity and homogenous nature between web sites, that we can divide them into a consistent homogenous categories, this division based on; 1) similarity, 2) shared elements, and 3) standardization (even its minimum level), commonly in; structure style, display style, site topography, data units. All that means; we can add some other new classes of materials which are not available in traditional environment in addition to the traditional classes that are web accessed. With more exposure to RAER in many of my works, the previous idea emphasized and grown with time.

There are three options for solving the current situation of lacking the right cataloging code:

1. Totally new code / rules.
2. Minor changes to AACR2.
3. Major changes to AACR2.

I found myself between the first and third option, in this paper I'm discussing the third one, the first option includes also many of what I will mentioned in this paper.

2. Field Scene

A quick look to our professional community, one can notice many trials to deal with RAER cataloging, another look, it can be discovered; the inadequacies of the majority of those trials in somehow, a third final look you can easily recognize the lack of one single satisfying rules that can handle all aspects of the issue.

Some are for electronic resources bibliographic citation only; not for cataloging, some are for just cataloging a specific web-accessed class of materials; such as serials, some gathered RAER with those are not remotely accessed in the same rules, rules dedicated for only RAER are representing some of those trials, all

those only-RAER rules have many variations if you compare them, no standard one tool to adopt, those which gathered RAER with any electronic resources prevent them to get the appropriate deep analysis and representative rules .

AACR2 the heart of cataloging body, has – however - its drawbacks and inadequacies, the most crucial is its lack of adaptation to new resource and environment, it's usual to see a full of notes record!! , Because the same traditions are running on, no new real adaptations. Further discussion of AACR2 will be stated later.

2.1 Some Issues and Some Thoughts

1.Worthiness Issue

The issue of Internet resources; to worth or not to worth!? . Really I thought it's an old issue to discuss, but I found many are still talking about it, so I'm discussing it here. The reality proves that the Internet is full of worthy resources, the base is the worthiness, non-worthiness is the exception, not the opposite.

Some judges it as worthless because of the plenty existence of pornographic materials on the web, we can urge them; OCLC's Web Characterization Project (WCP) states that adult web sites which are defined as " public web sites whose primacy content sexually explicit images or text "[3] are 3.3 % of all public web sites in 2002.

Some says that the Internet is full of commercial information, so it's worthless. No, it's very worthy for business information field, and many types of library and information units, which are interested in such competitive information.

Any way, the worthiness is a subject of library collection policy, and we have to make the appropriate cataloging code available, any one need to use it, he can.

2.Resource Dynamism

Volatility and changeability are some faces of the dynamic nature of RAER, we used to have a stable non-dynamic bibliographic record, the described medium was so. Now, the dynamic nature of the resource must be reflected in the record. The status of any record stable or dynamic, it's due to described resource. The resource is pre-existent, the record is post-existent, so what comes first affect what comes after.

So, it's not a wise statement to say it's hard to create bibliographic records to web sites because the site is dynamic and the record is stable. Yah it's hard to create it with our current type of record and code, but it won't be after adapting the record to the new dynamism.

There are some sub issues related to this, such as; dead / broken links, misleading links (URL changes), more than one URL for the same source (Domain/URL variations) this late issue is one of duplication problem reasons, and adding and removing of the content (content updating), all these problems can be solved by three parties, cataloging code, cataloger's efforts, and library systems.

3.Multiple Versions

I think the alternative URLs concept I proposed earlier can make something with the multiple versions either it's according to content or format .We have to differentiate between the content updating and a new edition or version, unless it's clearly stated on the resource. We may put a specific limit for updating if it exceeds this limit, it will be considered as a new version, surely this limit must be compatible with the resource nature.

We may adopt record updating concept in front of resource updating concept, updating there updating here, not all the time creating new records; as we have in traditional serial control, one bibliographic record and holdings record, the bibliographic record still as it is in despite of the content changes, the holding record is changing, the updating concept, I think, can be for both bibliographic and holdings record with some other fields that can manage this updating process like, the description based on (a specific issue of periodical or the last updating date of any resource for instance) , and the processing date .

We have to realize that RAER's multiple versions are the same main Carrier, but sub carriers, they all electronic but sometime PDF, HTML, ...etc. Regarding the content; they may be equal and may be not, holding record can act here.

4. Restriction:

As many sub issues, it all need a profound understanding and analysis to get what can represent it in a record, restriction is one of. As a face of the resource, it must be represented in the bibliographic record for such resource, restriction has four approaches or starting points for representation that help the user to read the record, see figure 2.

Figure 2 : User / Resource Restriction's Approaches

Local user means; library native user, or guest user (i.e. a person using the library collection inside its building), Local resource is a resource available by the library, it may be restricted to its users or not, Not local user is someone not belongs to the library in any way.

With these approaches, there are restriction types, it may be overlapped; it may be as follows:

1.Geographical restriction

It means the necessity to be inside a campus to use any resource of the library, with or with out using username or password.

1. Access Method Restriction
- Free Based Subscription
- Fee Based Subscription
- Trial Subscription

3.Usage Restriction

How many times the user read, display or print, download a specific unit; may be an article or record. How many times of any action or any thing the resource presents to user.

4.Content Restriction
- Only bibliographic records or table of contents.
- bibliographic data / abstracts
- full text
- combinations

5.Access Level Restriction

Like in a magazine, you may read only last issue, you can't read all the issues, sometimes you may read the archive only, and can't read the recent issue.

6.Reaching Restriction

To which point the user allowed to go forward in the resource; before the user login the resource or database, or after the user login or use and search the database, but it will be stopped if he tries to access the information itself.

2.2 A Suggestion and A Reply

In his paper, in a conference was held in Library of Congress in November 2000, Beacom [(4)] proposed the elimination of chapter (9); electronic resources, as one of his paper's recommendations, " Eliminate AACR2 chapter 9 (Electronic Resources); develop an ISBD-like area for the carrier aspects of all knowledge

Packages", so I have some kind of opinion about that:

1. I think the practical first look when any cataloging department receiving a resource is for carrier " is it physical or not !?" it's a decision making point , that affects the way or path the resource will take in the department to be cataloged. Therefore we can't put the class of material before the carrier or the form, to keep a consistent logical line in handling this matter.

2. If we follow this recommendation of Beacom, it means the AACR2 will remain as it is, especially the traditional classes of material based chapters, the AACR2 will not witness any other new class of material beside those traditional. So, where are the untraditional types of material that generated by the electronic environment, those materials which needs cataloging, and special treatment in various data areas.

3. The matter isn't just to put a new carrier data area in each chapter, in terms of cataloging, the carrier is not the only differentiation element, it has, however, a great impact on all data areas; which must be changed even in the public common first chapter.

2.3 Metadata

For its exceptional significance in current context, I devoted a private section for Metadata; to explain some of its issues that can put Metadata in its real position. I use Metadata term here to refer to those HTML code-embedded data elements.

1. **Automating Cataloging;** the Metadata in its common concept, may be valid for automating cataloging, which is – up till now- incomplete and inefficient effort. Even those Crosswalks that used to convert Metadata into MARC records; they are software built on just available incomplete, not the best rules or scheme. It's better to produce effective cataloging rules, then we can build any Crosswalks or any other software based upon those new valuable rules.

2. **Human Cataloging;** these 15 data elements are not enough to generate a respectable bibliographic record, like our traditional record, or to represent a dynamic resource like web sites.

3. **Cataloging In Publication (CIP);** it may be a kind of CIP, but we have to deal with it carefully, the producer or the coder isn't a cataloger, and it may be affected by many non-professional and non-scientific factors. Sure the quality of this Metadata CIP isn't the same, it surely less, as LC CIP or any other national library CIP.

4. **Cataloging Level;** it deals with the whole entity level not the analytical**,** it deals with macro level rather than micro level of the resource. Another dimension is dealing with a brief (very brief in fact) level not full real level of description.

5. **Real Library Environment;** it may be useful in networked environment retrieval, but with real library environment it couldn't gain the enough acceptance yet, the comparison between its quality and traditional methods always takes a place in mind.

6. **Networked Environment Retrieval;** even with search tools on the internet, it's not shown as a breakthrough or something, it has some kind of fail, and didn't

achieve the promised role, the phenomena of Spamdexing one of proofs. The shifting to second generation of search tool showed the necessity of controlled vocabulary, meaning based, and human effort based retrieval techniques, to find what you mean not what you say or type, it's another push to think about the real role of Metadata here. So, in my own believe, keyword searching may stay in play, not solely. The Metadata, in its current shape, stands as a sort of standardized keyword searching, uncontrolled vocabulary; the disadvantages of such technique are well known. Metadata in this context may be useful – with limitations – for resource discovery in networked environment not the effective retrieval; for spider-based search tools harvesting.

3.AACR2

The current AACR2, before 2002 and after, is not satisfying or sufficient to create real cataloging for RAER, all the changes are not accurately expressing the nature of cataloged resources, in its real and practical face.

Those changes occupied the adaptation second option; Minor Changes, which is surely not appropriate for the current situation. Even when AACR2 tried to has its major change, it had it in the inappropriate place; I mean 2002 Revision.

3.1 Amendments Characteristics

It's easy to find common characteristics of those amendments, stating here some of:

1. **Lack of harmonization**; cataloging community and JSC (Joint Steering Committee for Revision of Anglo-American Rules) are seeking the code harmonization with other international standards, I'm emphasizing this face of harmonization, but there is another vital one must be sought first, which is code harmonization with new nature of new resource, to make it well represented in the code.

2. **More Terminology changes**; Terminology changes are needed for sure when it shows any feasibility, but sometimes it remains just superficial changes without going ahead with the core of changing process. For instance, AACR2 just changed the title of chapter 9 from (computer files) to (electronic resources), just to give it more wider semantic scope to include more new forms, with not bothering ourselves of a dedicated treatment of such new resources; it's like an old poor store owner who realized the decreasing of his incoming customers, so he changed only the store's old banner to an attractive sparkling new one, but unfortunately all the poor store remained as it is, the situation froze.

3.**Scattering of related rules**; AACR2 refer the cataloger to more than two chapters to describe only one single source, it may be up to more than three chapters, it's

somehow not practical, it resulted of AACR2 insistence on its traditional dichotomy and structure.

The following three sections will be mentioned to pave the way for a better understanding of AACR2's 2002 revision discussion which will take a place after a while, and also to set a base for some other following sections.

3.2 Cataloging, Dichotomization and Resource – Related Factors:

Those resource – related factors are influencing two levels:

1- Cataloging and catalog record.

2- Resources distinction , also in two levels according to the distinction purpose :

A. Dichotomization Creation

B. Classes of Materials Creation

There are many faces of any available resource that affect library catalog record, all those faces must have the accurately, effectively, and realistic representation in the record. Some may consider the library catalog as a bibliographic tool with a documentation purpose, and some may see it as a retrieval tool with an access purpose, I believe in a library catalog as a decision making tool, without neglecting both previous roles and purposes. As the library institution and all our field are user-centered, so I brought out the ultimate purpose of the user when he use a library catalog which is; to use or not to use!? any retrieved resource, I gather them under more extensive umbrella ; the catalog is a bibliographic decision making tool which is user-centered in its input and output stages , and a resource-centered in its input stage , with its bibliographic and retrieval roles , and its documentation and access purposes .

In the process of representation and translation of the resource to create effective surrogates that eventually creates the link between a user and a resource, all resource faces which will help the user to take his decision must be represented in the record.

Those faces plays a role too in any resources dichotomization or anatomy process, one or more of this faces can be a base of distinction between available materials to create a logical framework that gather all materials and its co-relations in one frame, to generate a dichotomization or what is often called classes of materials or any other concepts that may governs the available collection of documents.

Those faces can be divided into three levels; 1) independent resource in its free environment, 2) resource in a library environment, and 3) resource in a networking

libraries environment or multi-library system, any consistent resource faces or influential factors may be added, here is a brief mention of them:

Level 1:

1. The way it may be used
2. The way the content may be organized
3. The way it may be read
4. The way it may be output
5. The way the content may be represented or coded
6. The way the content may be extended
7. The way it may be related to others
8. The way it may be accessed
9. The way it may be released or published
10. The way it may be recognized among others
11. The way its content domain may be identified among others
12. The way it may be user targeted
13. The way of its responsibilities
14. The way of it's co-existent with others
15. The way it may be contained
16. The way it may reach the cataloger
17. The way it may be changed or transformed

Level 2:

1. The way it may be collected to the library
2. The way it may be processed in the library
3. The way it may be used by users in the library

Level 3:

1. The way it may be owned by networked parties.
2. The way it may be positioned in a library network workflow.

Our main concern in current context is the first level; the resource in free environment.

3.3 Dichotomization Functional Dimensions:

In my opinion there are three dimensions should be available in any achieved dichotomy; in a general dichotomy all the three shouldn't be available, but in a

dichotomy in the context of cataloging code in searching for a new type of publication/resource model, all three dimensions must be included; those are:

1. Conceptualism: concept level; to be conceptual.
2. Structuralism: code construction level; to be structural.
3. Practicalism: code practice level; to be practical.

3.4 Dichotomy /Model Success Features:

I'm narrowing it more here, just talking about the type of publication model or cataloging code – based dichotomy, this one must has some features to carry out its role effectively; those are:

1. Logicality
2. Simplicity
3. Clearity
4. Applicability
5. Sequentiality
6. Three dimensions availability

3.5 AACR2's 2002 Revision:

The core change of AACR2's 2002 revision is its new type of publication model, hereunder my own feedback:

1. It's a trial for making a radical change, but it came as extremely radical, it was just in some concepts which are already available, but it brought them to the spot, made them the whole suit for every thing in the code.
2. It's a trial for putting a new media in old concepts in an inappropriate way.
3. It's a trial for breaking a stable traditions of cataloging code related to resource dichotomization in an unpractical and inappropriate way, with no need for that; actually the need already existed, but it's the misleading response to the screaming call of a real need.
4. It's a trial for extending the store with out a reasonable causes with keeping the situation unsolved; do you remember the poor old store I mentioned before, next to it in the same street, there was a clothes store which was prevented of selling any other commodities but clothes. One day he had to sell some shoes, so to overcome this, he put a sign on each shoe "I'm clothes". Got the idea!? ; the code enforce web site to put the sign "I'm serial", it's merging by force; chapter 12 store .

5. Most of traditional classes of materials are also available in web-accessed environment, analyticals too, despite of that we put all RAER as a part of one crowded chapter.

6. The finite resources takes 2-11 chapters, and the continuing resources 3,11,12, RAER only in chapter 12, the same story goes on, in addition of breaking a stable satisfying traditional chapter; 12.

7. It's a trial that undertake only the conceptualism functional dimension, no obvious existence of structuralism or practicalism, this dichotomy can remain as a conceptual frame or theoretical approach for materials distinction.

8. The base in this model " the way the content may be extended", it's just one of the resource related factors, and not the most important. In addition of that, it's already available in before-2002 code in somehow like any other factors, but it's not the only governing factor.

9. Practically, it's somehow confusing, the code using more than one dichotomy, a conceptual one which is not applied clearly to the code structure, and another structural dichotomy; the old one. The practicalism is lost here trying to find its way out of this sort of mess.

10. The base of " resource content extension" is already available in before-2002 code as mentioned, if we look to traditional classes of materials and its analogs in the web, we can find the same content extension as it is, with some exception, two banks of the same river. We need no new concepts for that rather needing new concepts in treating this content extensions in some types of web resources such as content updating.

11. The literature dealt with AACR2's needed adaptations revealed that the issue of compatibility in dealing of non-physical resources was the most needed adaptation. The code left it all and catches another totally different issue which is seriality, instead of treating RAER issue independently. It's upturning the code with no obvious real usefulness in finding solutions to the core problems of RAER, the same story goes on.

12. " Also loose – leafs, Web sites, and databases will no longer be thought of as monographs" (5) who said that librarians were looking to web sites as monographs; it's just one type of materials which are available on the web or represented in a web site, but there are many traditional known classes, and some must –to-know not traditional new classes.

13. The seriality or continuity isn't applicable for all web sites or RAER there are many exceptions and special cases.

4.The New Vision

Now, we can abstract that the available cataloging tools, including AACR2 are not the proper tool for RAER cataloging, the web resource is not just a new media or class of material; it's a new producing, publishing, and distributing system that analogs the traditional one, it's a parallel environment to the traditional one, we shouldn't deal with it as just one single new resource; it's a whole environment. All the traditional classes of materials, accurately most of, are available in the parallel universe, with its own new classes of materials which we have to recognize, define, and bordering them as a step to guarantee the cataloging level we hope and seek; real cataloging.

So we need to Implement some essential changes and adaptations, with global editing and new creations to the code, that will help to shape a vision to provide real cataloging of RAER, with keeping in mind that nothing worth doing is easy.

4.1 Target Areas and Types of Adaptations:

Our main concern is the cataloging code itself and its adaptation, but to maintain the logical line of this paper, I have to outline and frame all adaptations needed, also to emphasize that AACR2 or any code isn't the sole player in RAER cataloging; there are some other supporting players, however, code is the core player.

Adaptation process has three target areas, each one has some categorized types of adaptations, they all co-related either on the whole process level or on each target area level, those target areas as following:

1- Cataloging Code

2- Cataloging Environment

3- Library Systems

It's not the right place here to discuss the late two areas, but I'll handle them briefly, then I'll proceed the main concern, cataloging code.

Cataloging environment means the cataloger's tools in cataloging department and the cataloger's skills. The first, as any department retain a collection of tools that help cataloger (and the code) performing his work. In existence of RAER, some of traditional tools will be kept, and some will be added, such as; Internet Search Tools, Domain Name Keyword Searching Tools, Domain Registration Information Searching Services, Local NICs (Network Information Centers services), Web Sites Linking Analysis Tools, and some other tools, most of them are electronic resources too.

The cataloger must have good understanding of RAER, high ability to handle it and appropriate skills with abilities to use all the previous tools effectively.

Regarding library systems, they have to do some adaptations in many modules, such as link checker (some systems already adopt it), user notification of broken links, inventory style for RAER, some reflections on serial control, bibliographic /holdings concepts and process for RAER, and many others.

4.2 Cataloging Code Adaptations:

Adaptations and changes specifically related to the code itself and rules have some types, summarized below:

***A.* Structure**

1. General functional structure
2. Logical structure
3. General usage and instructional structure

***B.* Data Fields**

1. Data Areas
2. Fields itselves , and subfields

***C.* Rules**

1. Concepts that governs the rules
2. Comprehensive coverage (horizontal) of the rules
3. Profound Coverage (vertical) of the rules
4. Detail, and procedural clearness of rules formulation.

4.3 Cataloging Code Five Laws:

As Ranganathan had made the library field five laws long time ago, I inspired by those laws, and coined the five laws of any cataloging code either the code in its phase of original creation or in modification phase.

In searching for RAER cataloging, those five laws must be considered, adopted, and applied, we can even use them as a measure of cataloging code effectiveness, the five laws are:

1. Cataloging Code Is For Use; Satisfying Use.

Any cataloging code must be for use, not to be published and no catalogers using it because of its satisfactionless, or the catalogers just use the code, because no any other available codes. The code must be usable too.

2. Every Rule its Case

No rule in the code that is not expressing or representing a real case or need, even the optional use rules.

3. Every Case Its Rule

Every real case or need of representation in the record, related to the resource must has its expressing rule in the code, even the exceptional cases.

4. Save The Cataloger's Time, and So The User.

Code must be practical and cataloger-friendly, which lead to a user-friendly catalog, the code mustn't refer the cataloger to a million chapters to catalog one resource, the code must represent all that make the end user take his decision about a particular resource. Saving the time leads to saving the effort.

5. Cataloging Code Is A Living Organism

The code is a growing living organism, like a creature in his social environment, he must interact with the surrounders to maintain his existence, the code is growing and changing as its surrounding environment changes. Adapting to this growing, code has to do some changes when it shows a reasonable necessity.

4.4 Proposed New Type of Publication Model

In searching for the two single blankets of information resources with existence of RAER, I made many dichotomies trying to find the right one, finally I got one, I'm proposing it here, see figure 3. Hereunder some enlightening explanations of this model:

1. It's a trial for making homogenous dichotomy.
2. The dotted vertical line refers to the distinction line of both sides
3. The dotted horizontal lines, each one refers to a resource related factors that affect this dichotomy; 1) the way it may be contained, 2) the way it may be accessed, 3) the way it may reach the cataloger, 4) the way the content may be represented or coded.
4. The classes of materials on each side have its own resource related factors for distinction and classes creation, already made in our traditional classes for both sides, and must be done for new created on RAER side.
5. These horizontal lines are arranged in a logical sequential way according to the resource path to the cataloger, and the cataloger's interests priorities or first looks to the resource, both approaches are so co-related and co – existent.
6. We will have the same traditional classes of materials on both sides (Traditional / RAER) plus the new RAER's classes of materials, each class in its own chapter, the traditional classes as they currently are.
7. This dichotomy can be visualized in AACR2 with two volumes, the first for the current AACR2, and the other for RAER; why we are extending 0.24 rule and changing it to accommodate new resource, while we can have two 0.24 rules, one for traditional part, and one for RAER, and so on in the whole other rules.
8. RAER's each chapter will contain ISBD-like data areas, some main common areas with all RAER chapters, and some are belongs to each chapter

independently, general common data areas may be; 1) Title and statement of responsibility, 2) URL area, 3) Publishing, 4) Physical description and 5) Notes, and the specific data areas such as; Access area, Creditability area, issuing area, in addition to general notes for all RAER, each class of material has its own special notes.

9. If we tried to compare this proposed model with AACR2's 2002 model , we will find some points :

A. The resource related factors used to create this dichotomy are four, while AACR2 used just one, which is seriality.

B. Seriality is included by default in this proposed model, according to each class nature, but it's not solely the base for structure or practical base.

C. This model may be ranked higher than AACR2 in the availability of the six dichotomy / model's success factors.

10. With deep thinking of this dichotomy comparing it with RAER and traditional environment, and vice versa, I found another type of resource access and resource arrival to catalogers, it's not only (Direct Access / In hand) and (Indirect Access / Remotely); there is another level (Local access / On machine) which is non physical electronic resources stored on machine, it may be resulted of those downloadable file that can not be read on any of RAER's screen, you have to download it first to read, those local accessed on machines may be collected from any other sources . To be considered in our context, the library must make it available to users.

Despite of they are not equal in size and importance, the three levels of access and reaching are co- related, the relation between them generate what I called Transformationals, I mean by that " any resource transformed from a specific carrier, which is its original published one, to another one for any reason, the process of transformation must be done in the library environment not in the resource production environment", transformation may be; from non physical (indirect access / remotely) to non physical (local access / on machine) by downloading or saving in machine , from non physical (indirect / remotely & local / on machine) to physical (direct / in hand) by printing out the resource or saving it on disk .

If the library decide to join it in its collection and be accessed through the catalog, this Transformationals must be find its way of treatment in the code, each case in its place.

Back to (local access / on machine) resources and its place in the proposed dichotomy. We can recognize the original source of those resources either from RAER or any other disks so in this case it's Transformationals. Some other case it's original one not Transformational; like RAER downloadable files that can't be accessed unless u download it, and those resources originally created by the library through machine's input devices. The code should contain Tranformationals treatment sections especially in general chapter of each part, considering the source transformed from and target transformed to, with more emphasize to the late one, because it's the one we catalog.

4.5 Finalization

With putting all the previous in background as shaping elements of such vision, here are completion and finalization of this vision, which was extending all over this paper, it has two lines; basics and steps, underlying basics and heading steps; they are overlapping.

Basics

These basics creates a joint ground of any adaptations or vision, it governs the whole order:

1. AACR is not a holy book.
2. Using the same logical structure, main terminology, and principles of AACR, not creating from the scratch, with some adaptations.
3. Isolation of communication formats and the cataloging code, at least in an earlier stage, communication format isn't cataloging tool, it's surely comes after the code not before in the existence.
4. Isolation of automating cataloging and its tools, and the cataloging code.
5. Isolation of computer files (CF), chapter 9, and RAER.
6. Isolation of cataloging for RAER which related to catalog record of traditional resource, and cataloging for RAER which has no bibliographic extensions in the catalog.
7. Considering library catalog as a decision making tool.
8. Giving the chance for Coining a new cataloging and description terms that paralleled with traditional one but adapted with RAER, with creation of totally new ones.

9. AACR isn't the only player in this game of RAER cataloging.

10. Considering user behavioral and services shifting in our field; from one – on – one service to self-service(6), so the record must be helpful, readable, and understandable to users; it must be a user – friendly bibliographic record.

11. Dynamism of RAER must be reflected in its record.

12. RAER must find its way to high representation in the surrogate record.

13. Utilization of any available standards, reports …etc, with making the necessary modifications to them if needed; they are not holy books too, but with harmonization and consistency not haphazardly.

14. Considering the cataloging code types of adaptation as both a base, and a needed result.

15. Considering the three functional dimensions of any used dichotomy.

16. Keeping multi level concept of description either related to record, or related to resource, with kept of bibliographic entity or unit concept.

Steps

Those steps are the real actions for the adaptations we seek; each step's output may be the input of other step.

Global detailed look to RAER issue and its sub issues are highly important, we have to decompose all its parts and elements, and recompose it, this way will help greatly to capture a clear image of each problem and its potential solution.

1. To adopt cataloging code five laws, this will affect the whole process positively.

2. To adopt a new workable logical type of publication model, with RAER in a realistic appropriate position.

3. To analyze, profoundly, the RAER existent resources community, on vertical and horizontal levels, analysis stages can be targeted with classes of materials, and can generate those classes through the analysis process.

4. To analyze user, and cataloger behavior toward RAER, with new reshaping of the second one.

5. To be oriented in this analysis with a working target; some times with a resource category either it's a traditional one on web or new created one, with keeping a space for general public analysis.

6. To achieve the whole process through two related levels of work; description framework; to find the appropriate representative fields and data elements, the second is the description rules; to formulate the cataloger-leading clear rules.

7. To categorize RAER according to what mentioned in 1.3 section, just an example will be; those universities and related sites have a high level of similarity, so it can be educational institution RAER, or more wider to gather some other sites, it will be institution introducing web sites, or institution brochure web sites… and so on, try to give your self a chance for more thinking of this categorization examples, with keeping for sure traditional classes of materials. This categorization must be logical, conceptual, practical, and applicable, must be fitted with our purposes and goals of the entire process.

" Out Of Gas"

Do we have to put "out of gas" sign on our field's door!? , imagine it as a two paralleled matched 5 component – strings ; (Gas Station / Driver) and (Library community / Cataloger) .

If our field's community won't provide the appropriate changes, support, and realty-based adaptations, the car (sorry, the Code) won't find its energy or fuel to be forwarded and make the driver (Cataloger) reach his target destination (End User). I guess not, we will not put this sign, we don't like to.

It may be harder but not impossible, Real cataloging…

With heart.. you can think
To swim not to sink
To turn dark into pink
Fake is not for our sake
Real is ideal
Fighting spirit has no limit

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