

*CATALOGING DIGITAL  
MEDIA*

**Back to the Future**

ALCTS Preconference  
American Library Association  
Chicago July 9, 2009

*Cataloging Future:*  
**FRBR & RDA**

**A Presentation  
by**

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**Why Change?**

- **The current rules are outdated**
- **Published resources themselves are far more varied**
- **Technology has improved considerably**
- **Users have different expectations**
- **Multiple metadata standards**
- **Strong Anglo-American bias / strong library bias**
- **Some basic problems with the current rules**
- **Desire for a principle-based set of rules**

## The Importance of Relationships

- Linking the different aspects of how works are related to one another
  - Different editions of the same work
  - Translations
  - Analysis and criticisms
  - Adaptations
  - Works where the *content* stays the same but the *carrier* differs

## AACR2 and “Multiple Versions”

- Catalog each physical form of a title with its own bibliographic record
- Results in multiple records for the same title
- Catalog users rarely think in terms of multiple records for the same title
- Not a “user friendly” approach

### **Unfulfilled Requirements**

- Need to provide access to a wider range of information carriers: wider depth & complexity of content – show relationships of works
- Metadata (bibliographic information) created by a wider range of personnel in and outside libraries (authors, administrators, cataloguers, computers, publishers, etc. such as ONIX, IEEE-LOM, Semantic Web, etc.)

### **Background on the Change**

- Changes in technology
  - Impact on descriptive/access data
    - Book catalogs
    - Card catalogs
    - OPACs
    - Next generation
- Move from individual library to international audience
- Move from classes of materials to elements and values (more controlled vocabularies)

### **Functional Requirements for Bibliographic Records (FRBR)**

- Developed by a Working Group from IFLA's Cataloging Section
- Addresses issues of semantics in a multi-format world
- Demonstrates relationship between and among materials, creators of works, and subjects

### **FRBR, FRAD and Relational Databases**

- Concepts of showing relationships between different editions, translations, physical formats of the same work not new
- Current relational database structure allows us to link them efficiently

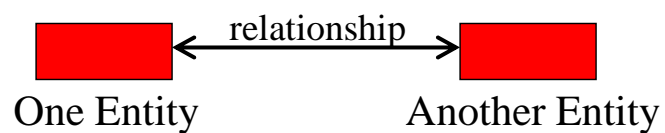
## FRBR Organization and Terminology

FRBR is organized into

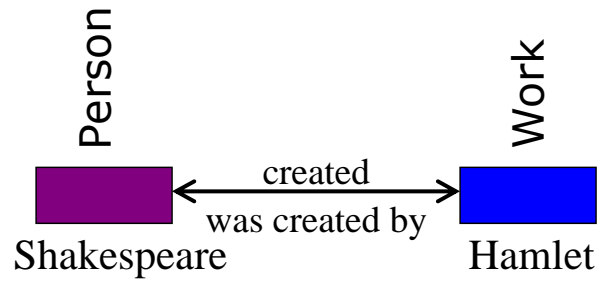
- Groups – which are subarranged by
- Entities – which have
- Attributes

## FRBR's Entity-Relationship Model

- Entities
- Relationships
- Attributes (data elements)



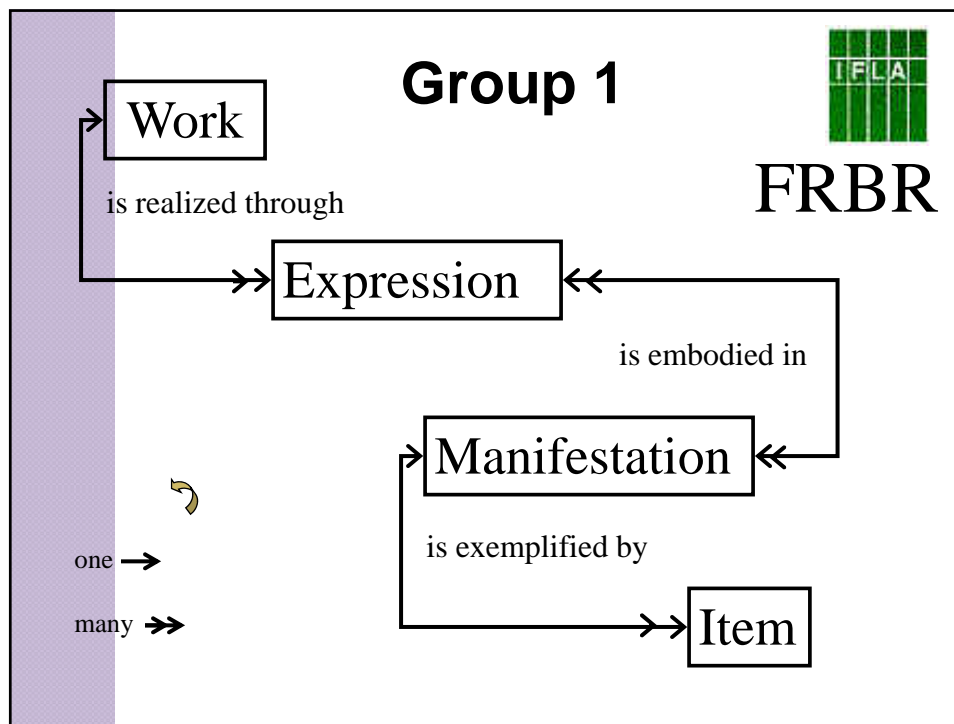
## FRBR's Entity-Relationship Model



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### Entity Group I: Four levels to identify materials

- Work – Intellectual concept
- Expression – Realization of the work
- Manifestation – Different physical formats
- Item – Specific piece



- FRBR Group 1 Attributes**
- **Work**
    - ID
    - Title
    - Date
    - etc.
  - **Expression**
    - ID
    - Title
    - Form
    - Date
    - Language
    - etc.
  - **Manifestation**
    - ID
    - Title
    - Statement of responsibility
    - Edition
    - Imprint (place, publisher, date)
    - Form/extent of carrier
    - Terms of availability
    - Mode of access
    - etc.
  - **Item**
    - ID
    - Provenance
    - Location
    - etc.

## **Voltaire's *Candide***

- Inspiration for it, or speaking about *Candide* in general terms = Work
- Realization, editions, interpretations = Expression
- Translations = Expressions
- Different formats (carriers) = Manifestation
- What's in your library = Item

## **Leonard Bernstein's *Candide***

- Inspiration for it = Work
- Broadway show = Expression
- Revival = Expression
- LP = Manifestation
- CD = Manifestation
- What I have in my library = Item

## FRBR Group 1 Quiz

Sun-Tzu's *Art of War*

孫子兵法

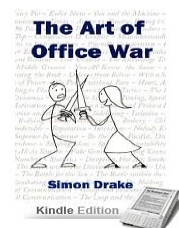


Image source: [http://en.wikipedia.org/wiki/The\\_Art\\_of\\_War](http://en.wikipedia.org/wiki/The_Art_of_War)

## Example 1

The art of office war / by Simon Drake

Image source: [www.amazon.com](http://www.amazon.com)



Amazon Review: In "The Art of

Drake combines the teachings of Sun-Tzu with the environment of "The Office."

In FRBR terms, *The Art of Office War* is a/n:

## Example 2

A modern edition of The Art of War translated into English by Samuel B. Griffith, in FRBR terms, this is a ...

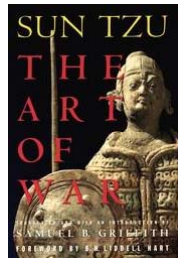


Image Source: <http://en.wikipedia.org/wiki/Image:ArtofWar.jpg>

## Example 3

Recorded Books comes out with a new Chinese language audiobook: *Sunzi bingfa* [Sun Tzi's The Art of War], read by Weiyin Jin



In FRBR terms, this is a ...

Image source: <http://en.wikipedia.org/wiki/Image:Tdkc60cassette.jpg>

## Example 4

You browse through the illustrations of Sunzi bingfa [Sun Tzu's *The Art of War*], a new edition with illustrations by Zheng Lu

In FRBR terms, this edition is a/n:

## Example 5

Your friend asks you "Have you read Sun Tzu's *The Art of War*?", In FRBR terms, *The Art of War* is a ...

## Example 6

A patron is doing a paper on Sun Tzu's *The Art of War* and checks out *The Art of War*, barcode number 37244016628086, the one with the coffee stain on the cover.  
In FRBR terms, this is a/n ...

## Example 7

Your book club reads *Mastering the Art of War*. Memoirs and notes by famous Chinese military strategists Zhuge Liang and Liu Ji

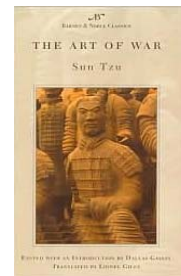
In FRBR terms, this is a/n...

## Example 8

You're at the San Mateo County Library in the 355 section. You pick up *The Art of War by Sun Tzu and Sun Zi*; edited by Dallas Galvin Lionel, Lionel Giles translator, barcode number 372446060998.

image source: [www.chapters.indigo.ca](http://www.chapters.indigo.ca)

In FRBR terms this is a/n....



## Example 9

A microfilm version of The Art of War from Sun Tzu's original bamboo scroll version.



In FRBR terms, this is a ...

Image source: [http://en.wikipedia.org/wiki/Image:Positive\\_roll\\_film.jpg](http://en.wikipedia.org/wiki/Image:Positive_roll_film.jpg)

## FRBR's Group 2

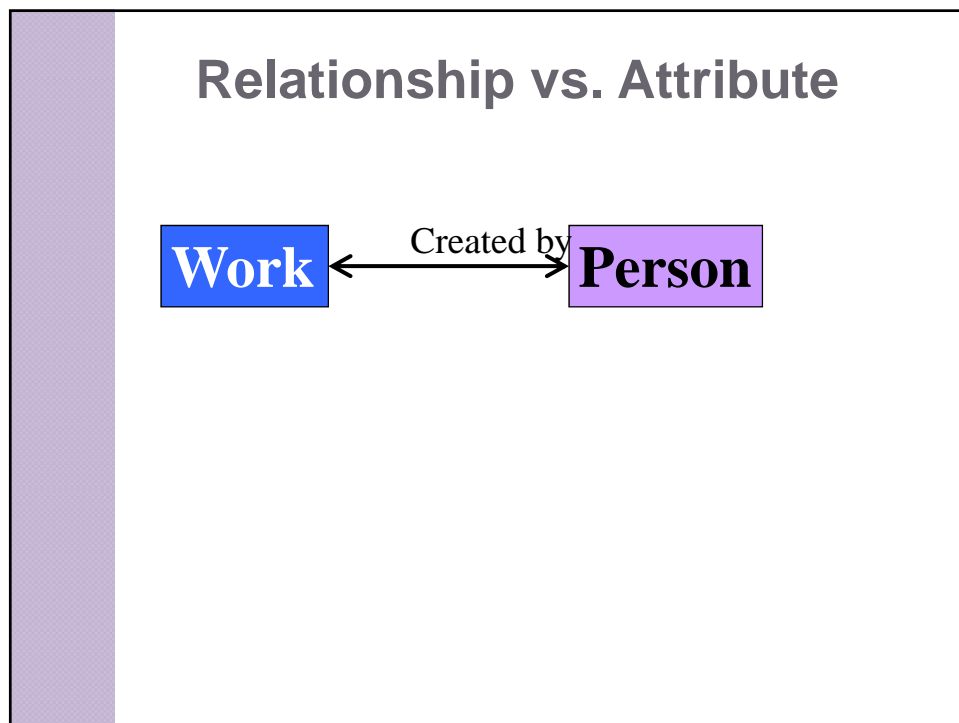
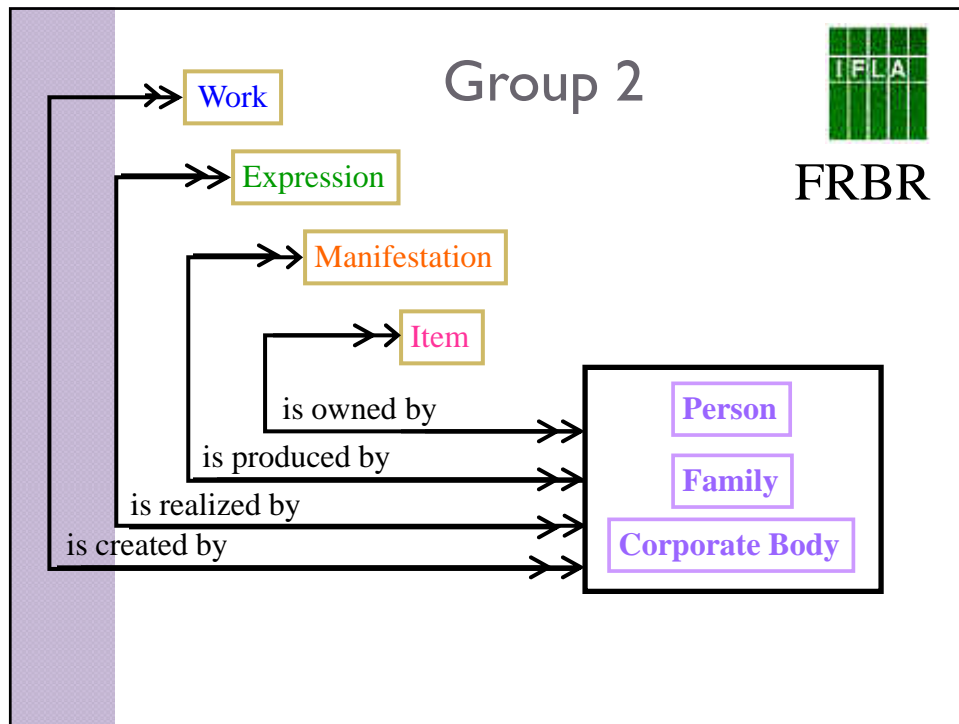
### Group 2: Relation of Persons and Corporate Bodies

- Related to Group 1 entities through specific relationships
  - Who creates, produces or realizes the work, expression, manifestation or item
  - Ties into authority control

## FRBR's Group 2

Who are Group 2 Entities?  
Those responsible for the intellectual & artistic content

- **Person**
- **Corporate body**
- **Family**



## FRBR's Group 3

### Subjects of works

- Concepts, objects events, places and any of the Group 1 or Group 2 entities (e.g., a work about another work such as literary criticism) or a work about a person or a corporate body

## FRBR Entities



### Group 3: Subjects of works

- Groups 1 & 2 *plus*
- Concept
- Object
- Event
- Place

## Why do we need FRBR?

- Improve the user experience in locating information
  - Guide systems designs for the future
  - Guide rule makers
- Cut costs for the description and access to resources in our libraries
- Position information providers to better operate in the Internet environment and beyond

The screenshot shows the Amazon.com product page for 'William Shakespeare's Hamlet (Two-Disc Special Edition) (1996)'. The page includes a search bar, navigation links, and product details. The product is priced at \$24.99, down from a list price of \$26.99. It is available in DVD, Blu-ray, and Video On Demand formats. The page also features a 'Frequently Bought Together' section and a 'What Do Customers Ultimately Buy After Viewing This Item?' section.

**amazon.com** Hello, Stephen Tillett. We have recommendations for you. (Not Stephen?) **FREE 2-Day Shipping, No Minimum Purchase**

Stephen's Amazon.com Today's Deals Gifts & Wish Lists Gift Cards Your Account | Help

Shop All Departments Search **Movies & TV** Cart Your Lists

**Movies & TV** Advanced Search Browse Genres New Releases Bestsellers DVD Deals TV Shows Blu-ray Video On Demand First To Know™ Amazon Entertainment

**HAMLET** William Shakespeare's Hamlet (Two-Disc Special Edition) (1996)  
Starring: [Kenneth Branagh](#), [Julie Christie](#) Director: [Kenneth Branagh](#)  
Rating: **[RATED]** Format: **DVD**  
★★★★☆ (332 customer reviews)

List Price: **\$26.99**  
Price: **\$24.99** & eligible for **FREE Super Saver Shipping** on orders over \$25. [Details](#)  
You Save: **\$2.00 (7%)**

**In Stock.**  
Ships from and sold by Amazon.com. Gift-wrap available.

Want it delivered **Tuesday, March 3?** Order it in the next 7 hours and 7 minutes, and choose **One-Day Shipping** at checkout. [Details](#)

**42 new** from \$14.80 **13 used** from \$14.54

Also Available in: List Price: Our Price: Other Offers:  
Blu-ray  
HD DVD  
VHS Tape  
Video On Demand \$9.99 **72 used & new** from \$1.70

**Special Offers and Product Promotions**  
• Other formats available: [Shakespeare Collection](#)

**Frequently Bought Together**

**Total List Price: \$56.45**  
**Price For All Three: \$45.97**  
[Add all three to Cart](#)

**This item:** William Shakespeare's Hamlet (Two-Disc Special Edition) **DVD** ~ Kenneth Branagh  
 **Henry V DVD** ~ Brian Blessed  
 **Hamlet DVD** ~ Mel Gibson

**What Do Customers Ultimately Buy After Viewing This Item?**

Quantity: 1  
[Add to Shopping Cart](#)  
or  
[Sign in](#) to turn on 1-Click ordering.  
or  
[Add to Cart with FREE Two-Day Shipping](#)  
Amazon Prime Free Trial required. Sign up when you check out. [Learn More](#)

**More Buying Choices**  
**60 used & new** from **\$14.54**  
Have one to sell? [Sell yours here](#)

**Watch It Now**  
[Buy and watch now: \\$9.99](#)  
**amazon video** on demand  
[Add to Wish List](#)  
[Add to Shopping List](#)  
[Add to Wedding Registry](#)  
[Add to Baby Registry](#)  
[Share with Friends](#)

## RDA

- Resource Description and Access
- <http://www.rdaonline.org>

### Aims of RDA

- Rules should be easy to use and interpret
- Be applicable to an online, networked environment
- Provide effective bibliographic control for all types of media
- Encourage use beyond the library community
- Be compatible with other similar standards
- Have a logical structure based on internationally agreed principles

## Outline of *RDA* Structure

- General introduction
- Two main parts
  - **Recording Attributes (4 sections)**
  - **Recording Relationships (6 sections)**
    - A chapter of general instructions for each section
    - Chapters associated with a user task
- Appendices

<http://www.collectionscanada.gc.ca/jsc/rdapropectus.html>

## RDA Outline Structure

### Parts of RDA

- Introduction
- Attributes
  - Sections 1 to 4 (chapters 1 to 16)
- Relationships
  - Sections 5 to 10 (chapters 17 to 37)
- Appendices A to M
- Glossary

## In using RDA, what do we need to know?

### Analyze the resource being described

- What is the content type?
- Held in what carrier form?
- To what other resources is it related?
- To which persons, families or corporate bodies is it related?
- To what concepts, events and places is it related?

## RDA – What will it be?

- Initially an online resource
    - Complete text
    - Pricing, subscription, etc. – still not decided
  - Potentially:
    - Concise text
    - Tailored texts (law, music, serials, etc.)
    - Training resource
- Loose-leaf print version(s)

## RDA's Usability

- Independent of communication formats
  - UNIMARC, MARC, MARCXML, MODS/MADS
  - DC, EAD, ISBD, VRA, MPEG7
- Compatible / better aligned with other similar standards
  - Archives: ISAD(G)
  - Museums: Cataloging Cultural Objects

## RDA key messages

Not much is new  
but it's arranged differently

Clarifies the processes  
that we already follow

Potential for new developments

## MARC key messages

RDA does not replace MARC  
it replaces AACR2

The MARC changes required to use RDA are  
small

## Proposed new codes

Additions to some 007 and 008 code lists

**For example...**

**Non-projected  
graphic 007/04**  
(primary support  
material)  
+ v - leather  
+ w - parchment  
+ n - vellum  
+ i - plastic  
+ l - vinyl

**For example...**

**Music 008/20** (format  
of music)  
+ h - chorus score  
+ i - condensed score  
+ j - performer-  
conductor part

## Proposed new fields & subfields in bibliographic records

### New subfields:

- (various fields) \$e or \$4 or \$u - relationship designators

### New fields:

- 336 (Content type)
  - 337 (Media type)
  - 338 (Carrier type)
  - 588 (General cataloguers note)
  - 883 (Entity type)
- 336-338 replace GMD (i.e. 245\$h)

## Content, media type & carrier

RDA introduces three new fields of description:

- Content - RDA core element
- *Media Type* - RDA optional element
- Carrier - RDA core element

These **replace** MARC 245\$h, currently recorded as per instructions in AACR2 rule 1.1C (General Material Designation)

## Recording content, media type & carrier

### EXAMPLES

- Content: *still image, text, notated music,...*
- Media type: *audio, projected, unmediated,...*
- Carrier: *microfiche, audio disc, online resource,...*

### TERM vs CODE

- Content:        *still image = [sti]*        *text = [txt]*
- Media type:    *audio = [a]*                    *unmediated = [u]*
- Carrier:        *microfiche = [me]*        *audio disc = [ad]*

## In the real world...

Imagine a record for a CD/DVD set containing:

- 1 CD (musical content)
- 1 DVD (video content)
- liner notes

**Currently a cataloger could choose from a range of limited options:**

```
245 $h[sound recording]
or
245 $h[videorecording]
or
245 $h[kit]
```

## Using MARC Fields 336-338

### Content: 336 (R)

```
336 ## $aperformed music$2rdacontent
336 ## $atwo-dimensional moving image$2rdacontent
336 ## $atext$2rdacontent
```

### Media type: 337 (R)

← *remember media type is optional in RDA*

```
337 ## $aaudio$2rdamedia
337 ## $avideo$2rdamedia
337 ## $aunmediated$2rdamedia
```

```
$a = term (R)
$b = code (R)
$2 = source (NR)
```

### Carrier: 338 (R)

```
338 ## $aaudio disc$2rdacarrier
338 ## $avideo disc$2rdacarrier
338 ## $asheet$2rdacarrier
```

## Use of abbreviations (I)

- For transcribed elements use only those abbreviations found in the sources of information for the item
  - *1st ed. ; second edition*
  - *Wellington, New Zealand; Department of Health*
  - *July/August 2005; volume 1, number 12; vol. 5, no. 3*
- Extent of item
  - e.g. *pages, volume*
- Illustrative content
  - e.g. *illustrations, genealogical tables*
- Color content e.g. *chiefly color*

## Use of abbreviations (2)

- Place of publication not known
  - *Place of publication not identified* (instead of [S.I.]
- Publisher cannot be identified
  - *publisher not identified* (instead of [s.n.]
- Date of publication cannot be reasonably determined
  - *date of publication not identified*

## Rule of three

- Statement of responsibility
  - Can include all group of persons, families or corporate bodies named
    - e.g. *Managing bird damage to fruit and other horticultural crops / John Tracey, Mary Bomford, Quentin Hart, Glen Saunders, Ron Sinclair*
- Access points
  - Can provide preferred access points representing all the creators
    - e.g. *Tracey, John Paul; Bomford, Mary; Hart, Quentin; Saunders, Glen; Sinclair, Ron*

**BUT**

## Optional omission

- Can omit all but the first of each group of persons, families or corporate bodies named
- Indicate omission by summarising what has been omitted
- Enclose the summary of omission in square brackets
- Examples:

*Roger Colbourne [and six others]*

*coordinated by University of Maryland [and four local government bodies]*

### **AACR**

Area

Element

Heading

Main entry

Added entry

Uniform title

### **RDA**

Element

Sub-element

Access point

Preferred  
access point

Variant access

point

Preferred title  
name of the  
work

## Usability Criteria

- Ease of use for catalogers
- Capability of systems vendors to use records
- Ability of users to find what they seek
- Usability to provide access to a broader range of materials

## Technical Feasibility

- Co-existence of *RDA* and *AACR2* records
- Functionality and integration of the online product with other resources and tools
- System development required prior to full implementation

## Operational Feasibility

- Impact on existing cataloging operations
- Impact of end-user access

## Financial Feasibility

- Cost of training
- Cost of altering workflows
- Cost of creating records
- Cost of moving to web-based tool
- Cost of converting data

## Implementation Issues

- Training for *RDA*
  - Catalogers will need some training
    - The underlying models and principles
    - Rules that have changed
  - Online product will assist with learning
  - Groups that provide training are beginning to make plans

## Example of “FRBRizing” Catalog

The screenshot shows a Windows Internet Explorer browser window displaying search results for 'The art of war' by Sun Tzu on the WorldCat website. The search results are FRBRized, showing individual works rather than just titles. The results include:

- 21. **The art of war (the essential translation of the classic book of life)** by Sun Tzu ; Lorna Raver; Roy Porter. Audiobook on CD. Language: English. Publisher: Arden, Cr. Blackstone Audiobooks, 2008. [View all editions and formats](#)
- 22. **Applying Sun Tzu "Art of war" to strategic leadership and management** by Gilbert King, Sun Tzu. Book. Language: English. Publisher: Singapore : Egnod Consulting Associates Pte Ltd, ©2008.
- 23. **El arte de la guerra: The Art of War** by Tzu, Sun, Bih, Sun. Book.

The interface includes a search bar with the query 't:art of war au,tzu, sun', a 'Search' button, and a 'Refine Your Search' section on the left with filters for Author, Format, and Year. The search results are sorted by Relevance. The browser's address bar shows the URL: http://www.worldcat.org/search?qt=1%3Aart-of-war+au%3Asun%2C+sun&ty=1%3A2005\_2009+%.3E&stem=21&qt=next\_page

# Manifestation Level

Formats and Editions of The art of war [the essential translation of the classic book of life] - Windows Internet Explorer

Showing all editions for 'The art of war [the essential translation of the classic book of life]'

Refine Your Search: Displaying Editions 1 - 6 out of 6

Title / Author	Type	Language	Date / Publication Edition
1.  The art of war [the essential translation of the classic book of life] by Sun-Tzu., Lorna Raver, Ray Porter	Audiobook on tape	English	2008 Ashland, Or. : Blackstone Audiobooks
2.  The art of war [the essential translation of the classic book of life] by Sun-Tzu., Lorna Raver, Ray Porter	Audiobook on CD	English	2008 Ashland, Or. : Blackstone Audiobooks
3.  The art of war - the oldest military treatise in the world by Sun-Tzu.; Lionel Giles	Book	English	2007 Bnpublishing Com
4.  The art of war	Book	English	1971 London etc. :

# Item Level

The Art of War Library Edition. [WorldCat.org] - Windows Internet Explorer

The Art of War Library Edition.

Author: Tzu, Sun, Porter, Ray  
 Publisher: Fantasy World Llc 2008  
 Edition/Format: Audiobook : English  
 Rating: (not yet rated) [1 with reviews - be the first](#)

Get this item

Borrow or obtain a copy

Enter your location:  Find libraries or select a location:

Library	Full format	Distance
Baker & Taylor Inc Tech Service & Prod Dev	Sound Recording	290 miles

## RDA Timeline

- 4<sup>th</sup> quarter 2008 – full draft of content released in print form for comment
- Late January 2009 – comment period closes
- 2<sup>nd</sup> quarter 2009 – content is finalized.
- Late Nov. 2009 – RDA Online initial release
- 1<sup>st</sup> quarter-2<sup>nd</sup> quarter calendar 2010 national libraries and test partners evaluate RDA
- 3<sup>rd</sup> quarter—LC analyzes test results
- 4<sup>th</sup> quarter calendar 2010 -1<sup>st</sup> quarter 2011—RDA implementation

## Questions?

