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Metadata for Graphic Novels and Comic Books: Comic Book Markup Language and Advanced Comic Book Format

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Metadata for Graphic Novels and Comic Books: Comic Book Markup Language and Advanced Comic Book Format

By Wright, Vonda

Graphic novels and comics can be difficult to catalog due to the graphic and textual nature of the medium. The most popular and used formats for comics and graphic novels would not meet the standard for most institutions, but since there are a number of digital files already available in the Comic book RAR (CBR) and Comic Book Zip(CBZ) reader file format with little to no metadata attached those files should be cataloged using either a known xml or other schema and then have a crosswalk applied to them to adapt them to the more controlled, and more complex, Comic Book Markup Language (CBML) that should be used by information institutions. CBML is based in Text Encoding Initiative (TEI), while the standard for comic books as it can be added to XML such as Dublin Core, and is extremely involved and far more complicated than the average institution will need. The project proposed is a set of records created using specific standard for metadata cataloging of comics and graphic novels, CBR and CBZ reader files, in Dublin Core (DC) with a detailed crosswalk to the more Advanced Comic Book Format with the CBML in the appropriate sections.

Literature and overview

In recent years comic books and graphic novels have gained in popularity within libraries and in the culture as a whole. Collections of comics and graphic novels are being cataloged by both private collectors and libraries. The creation of digital content in

this format and the preservation(Whittaker, B. 2006) of physical items have led to the creation of several schemas for adding appropriate metadata to these items.

The information in this literature review will be presented thematically, by addressing the general topic of the metadata schemas for graphic novels and comic books, the needs of those using the different schemas for the graphic novels and comic books, and the specific schemas for this format with the primary focus on the Comic Book Markup Language as created by John A. Walsh (2012). The themes of comic book and graphic novel metadata issues and benefits will also be explored. The following 10 resources are reviewed to give the best overall view of this topic and the issues surrounding it. The following paper includes a variety of different types of resources including organizational websites, journal articles, research papers, and user created content.

Overview

The comic and graphic novel formats were early adapters to the digital model with many titles being available only online. (Hoover, S. 2011) Private collectors and specialty collections by information centers have digitalized their physical items to preserve and share them. This has led the user created metadata schemas to better catalog this format in private collections. These user created schemas have their limitations and issues that make them problematic to control at the large scale for information institutions. However the user created application has the benefit of being extremely easy to use and relatively easy to share the information created with others. These user created formats are based on xml and Dublin core schemas. The scholarly version of the user created model is based in Text Encoding Initiative (TEI) and is a

more controlled, and therefore less basic user friendly, format that is more suited to information institutions use. Comics are generally short 32 pages or less and serial, but graphic novels are the longer titles that can either be standalone or serial. (Adamich, T, 2011)

Types of schemas for comic books and graphic novels

While both Dublin core and a basic XML could be applied to comic books and graphic novels, neither are designed to deal with both images and text within the same item.

Here are the schemas designed to provide metadata for the format.

Comic Book Reader (.CB7, .CBA, .CBR, .CBT, AND .CBZ)

These all refer to the personal file manager that are created by users with this varying file type. The two most popular are CBR and CBZ. Harding disrobes the file managers as being “iTunes like” (2014)

Advanced Comic Book Format (ACBF)

While notably better and more controlled than the first two schemas it has issues, namely that it is not widely used. It does list a singular digital library that uses its format. ACBF separates the image and text layers and adds metadata for each separately. This focuses on the format rather than the storyline of the item.

Comic Book Ontology (CBO)

Created by Petiya, S. this ontology tries to bring together information and create linked data using RDF/XML. (2014 Comic Book Markup Language (CBML) is based on the Text Encoding Initiative (TEI) format. This schema allows for the addition of metadata for not only the text and graphics within the item, but offers the ability to address additions to the comics such as fan mail, news, and advertisements within the item that

may be relevant. This schema was created and defined by John A. Walsh on the University of Indiana's webpage, www.dcl.slis.indiana.edu/cbml/. It also has the most defined classes and use of each field with a more controlled vocabulary. Walsh's CBML uses the TEI tags but with the addition of <panel>; <balloon>; <caption> to better catalog the items. The webpage offers detailed description of each tag and how it would be applied to the item. (Walsh, 2012)

The needs of the user

Private collectors favor the CBR and CBZ schema due to the easy to use tools and the ability to customize the metadata to their personal tastes and needs. Due to the high use within the community it is easy for the records to be shared and modified by others. The lack of controlled vocabulary allows them to add personal tags and information they feel is relevant to their personal collection. However, this freedom is the reason it is not the best choice for institutions like libraries and museums.

Benefits and issues

The user created files do not allow for metadata to be added directly (CBR and CBZ), while there are extensions for the file readers for these file types that do allow for some metadata to be added. They do not promote the use of controlled vocabularies and allow for user tagging. The reader files are widely used and it is likely that institutions will be incorporating metadata into this files. These standards for metadata cataloging of comics and graphic novels requires levels of information for most institutional applications.

Project description:

This project has 2 parts, 1. detailed crosswalk between the ACBF, CBML, and DC and 2. a small collection of 5 records created from CBZ and CBR reader files from the Digital Comic Museum public domain collection cataloged in each of the three schemas ACBF, CBML, and DC.

The crosswalk was first created using information from each organization's websites. After creating the crosswalk records were generated for each of the comics in Dublin Core, then using the crosswalk created records in ACBF and CBML.

Conclusion:

The crosswalk worked well and helped to complete the rest of this project. While the benefits of using each of the schemas that was worked with for this, specifically how CBML would allow for additional access points that users would never have otherwise. However, the CBML was extremely labor intensive to use and ACBF worked better and was easier to use as a cataloger.

Resources:

Advanced Comic Book Format in Launchpad. (n.d.). Retrieved December 9, 2014, from <https://launchpad.net/acbf>

Adamich, T. (2009). Graphic Novels and Metadata: The Connections and the Challenges. *Technicalities*, 29(3), 10-14.

The Digital Comic Museum - Free and Public Domain Comic Books. (n.d.). Retrieved December 9, 2014, from <http://digitalcomicmuseum.com/>

Harding, A. H. (2014). *Comic Book Metadata and Database Design*. UNC Chapel Hill Theses, 1.

- Hoover, S. (2011). THE CASE FOR GRAPHIC NOVELS. *Communications In Information Literacy*, 5(2), 174-186.
- Petiya, S., (2014). Best Practice Poster: Converting Personal Comic Book Collection Records to Linked Data . *Proc. Int'l Conf. on Dublin Core and Metadata Applications 2014*.
- Turner, E. E. (2014). *Accessing the Avengers: An Investigation of Graphic Novel Classification in Literature and Practice*. UNC Chapel Hill Theses, 1.
- Walsh, J. A. (2012, May 17). What is CBML?. In *Comic Book Markup Language* Retrieved from <http://dcl.slis.indiana.edu/cbml/>
- Walsh, J. A. (2012). *Comic Book Markup Language: An Introduction and Rationale*. *Digital Humanities Quarterly*, Volume 6 Number 1.
<http://www.digitalhumanities.org/dhq/vol/6/1/000117/000117.html#lee1969>
- Whittaker, B. M. (2006). "Get It, Catalog It, Promote It": New Challenges to Providing Access to Special Collections. *RBM: A Journal Of Rare Books, Manuscripts, & Cultural Heritage*, 7(2), 121-133.

Figure 1.

Crosswalk

DUBLIN CORE /XML Crosswalk	ACBF	CBML
<creator>	<last-name>	
<contributor>	<last-name>	
<publisher>	<publisher>	
<title>	<book-title>	
<alternative>	<book-title>	
<date>	<publish-info>	
<created>	<publish-info>	
<valid>		
<available>		
<issued>		
<modified>		
<dateAccepted>		
<dateSubmitted>		
<subject>	<genre><characters><name>	<characterList> <characterGroup> <characterItem> <masthead> <persona> <personaDesc>
<temporal>		
<spatial>		
<description>	<page><coverpage>	<balloon><caption><panelDesc> > <advisory><sound> <text>
<tableOfContents>		
<abstract>		
<rights>		<resp>

Sample records:

1. <http://digitalcomicmuseum.com/index.php?dlid=11910>

DC

```
<link rel="schema.DC" href="http://purl.org/dc/elements/1.1/">
<meta name="DC.title" content="Black Cobra">
<meta name="DC.identifier"
content="http://digitalcomicmuseum.com/index.php?dlid=11910">
<meta name="DC.creator" content="Robert W. Farrell">
<meta name="DC.contributor" content="S. M. Iger ">
<meta name="DC.publisher" content="Farrell Publication">
<meta name="DC.type" scheme="DCMITYPE"
content="http://purl.org/dc/dcmitype/StillImage">
```

CBML

```
<figure>\<head>Cover<title>Black Cobra</title>
#1 (1954).</head>
<graphic url="http://digitalcomicmuseum.com/index.php?dlid=11910"/>
</figure></p>
<egXML xmlns="http://digitalcomicmuseum.com/">
<cbml:panel characters="#black cobra#jim Hornsby#cobra kid#bob hornsby">
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel>
<cbml:panel = "p.2 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.2 Ad">
<cbml:panel= "p.3 Ace Spy Smasher">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
```

```

</cbml:panel= "p.3 Ace Spy Smasher"> <cbml:panel= "p.10 Ad">
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.10 Ad"><cbml:panel= "p.11 Ad">
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.11 Ad"><cbml:panel= "p.12 Scourge of Evil">
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon></cbml:panel= "p.12 Scourge of
Evil"><cbml:panel= "p.17 Ad"> </cbml:panel= "p.17 Ad">
<cbml:panel= "p.19 Assignment Manhunt">
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.19 Assignment Manhunt">
<cbml:panel= "p.26 Ad"> <cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon></cbml:panel= "p.26
Ad"><cbml:panel= "p.27 Ad"> <cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.27 Ad">
<cbml:panel= "p.28 Black Cobra Crashes the Ring of Red death">
<cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.28 Black Cobra Crashes the Ring of Red death">
<cbml:panel= "p.35 Ad"> <cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon></cbml:panel= "p.35
Ad"><cbml:panel= "p.36 Ad"><cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon></cbml:panel= "p.36
Ad"><cbml:caption></cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</egXML></exemplum>

```

ACBF

```

<?xml version="1.0" encoding="utf-8"?> <ACBF xmlns="http://www.fictionbook-
lib.org/xml/acbf/1.0"> <meta-data> <book-info> <author activity="Writer"><first-
name>Robert</first-name><last-name>W.</first-name><last-name>Farrell</last-
name></author> <author activity="Adapter"><first-name></last-name></author>
<author activity="Artist"><first-name>S.</first-name><last-name>M.</first-name><last-
name>lger</first-name><last-name></last-name></author> <book-title>Black

```

```

Cobra</book-title> <genre>crime</genre> <characters><name>Black
Cobra</name><name> Jim Hornsby</name><name> Cobra Kid</name><name> Bob
Hornsby</name></characters> <coverpage> <image href="America's Champion of
Justice"/> </coverpage> <languages> <text-layer lang="en" show="False"/>
</languages> </book-info> <publish-info> <publisher>Farrell
Publication</publisher> <publish-date value="1954-01-01">1954</publish-date>
</publish-info> <document-info/> </meta-data> <body> <page><image href="p.2
Ad"/></page><page><image href="p.3 Ace Spy Smasher"/></page><page><image
href="p.10 Ad"/></page><page><image href=" p.11 Ad"/></page><page><image
href="p.12 Scourge of Evil"/></page><page><image href="p.17
Ad"/></page><page><image href="p.19 Assignment Manhunt"/></page><page><image
href="p.26 Ad"/></page><page><image href="p. 27 Ad"/></page><page><image href="
Black Cobra Crashes the Ring of Red death"/></page><page><image href=" p.35
Ad"/></page><page><image href="p.36 Ad"/></page> </body> </ACBF>

```

2. <http://digitalcomicmuseum.com/index.php?dlid=18254>

DC

```

<link rel="schema.DC" href="http://purl.org/dc/elements/1.1/">
<meta name="DC.title" content="Green Hornet Comics">
<meta name="DC.identifier"
content="http://digitalcomicmuseum.com/index.php?dlid=18254">
<meta name="DC.description" content="V.2, n.7 superhero">
<meta name="DC.subject" content="Comic">
<meta name="DC.language" scheme="ISO639-1" content="en">
<meta name="DC.creator" content="Ed Brubaker">
<meta name="DC.contributor" content="Arthur Cazeneuve">
<meta name="DC.publisher" content="Family Comics, Inc.">
<meta name="DC.type" scheme="DCMITYPE"
content="http://purl.org/dc/dcmitype/StillImage">

```

CBML

```

<figure>
<head>
Cover<title>Green Hornet Comics</title>
v.2, n.7(1942).
</head>
<graphic url="http://digitalcomicmuseum.com/index.php?dlid=11910"/>

```

```

</figure>
</p>
<egXML xmlns="http://digitalcomicmuseum.com/">
<cbml:panel characters="#Green Hornet#Britt Reid#Kato, Mike Axford #The Clown #Sgt.
Morgan #Lenore Case #Ed Lowry #Honey Blake #the Blonde Bomber #Jimmy Slapso
#Carmen #Nick Nighter">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel>
<cbml:panel = "p.2 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.2 Ad">
<cbml:panel= "p.3 Daffy Drafty">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.3 Daffy Drafty">
<cbml:panel= "p.4 Cadet Blakely">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.4 Cadet Blakely">
<cbml:panel= "p.13 The Blond Bomber">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.13 The Blond Bomber">
<cbml:panel= "p.19 Robin Hood">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.19 Robin Hood">
<cbml:panel= "p.28 Getting Maisie Married">
</cbml:panel= "p.28 Getting Maisie Married">

```

```

<cbml:panel= "p.29 Army & Navy Laughs">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.29 Army & Navy Laughs">
<cbml:panel= ".31 Green Hornet Buzzers">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= ".31 Green Hornet Buzzers">
<cbml:panel= "p.33 Mighty Midgets"> <cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.33 Mighty Midgets">
<cbml:panel= "p.40 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.40 Ad">
<cbml:panel= "p.41 Zebra">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.41 Zebra">
<cbml:panel= "p.50 Buglerettes">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.50 Buglerettes">
<cbml:panel= "p.51 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.51 Ad">
</egXML>
</exemplum>

```

ACBF

```
<?xml version="1.0" encoding="utf-8"?> <ACBF xmlns="http://www.fictionbook-
lib.org/xml/acbf/1.0"> <meta-data> <book-info> <author activity="Writer"><first-
name>Ed</first-name><last-name>Brubaker</last-name></author> <author
activity="Adapter"><first-name></last-name></author> <author activity="Artist"><first-
name>Arthur</first-name><last-name>Cazeneuve</last-name></author> <book-
title>Green Hornet Comics</book-title> <genre>superhero</genre>
<characters><name>Green Hornet</name><name>Britt Reid</name><name>
Kato</name><name>Mike Axford</name><name> The Clown</name><name> Sgt.
Morgan</name><name> Lenore Case</name><name> Ed Lowry</name><name>
Honey Blake</name><name>the Blonde Bomber</name><name> Jimmy
Slapso</name><name> Carmen</name><name> Nick Nighter</name></characters>
<coverpage> <image href="p.1"/> </coverpage> <languages> <text-layer
lang="en" show="False"/> </languages> <sequence title="v2">n.7</sequence>
</book-info> <publish-info> <publisher>Family Comics, Inc.</publisher> <publish-
date value="1942-01-01">1942</publish-date> </publish-info> <document-info/>
</meta-data> <body> <page><image href="p.2 Ad"/></page><page><image
href="p.3 Daffy Drafty"/></page><page><image href="p.4 Cadet
Blakely"/></page><page><image href=" p.13 The Blond
Bomber"/></page><page><image href="p.19 Robin Hood"/></page><page><image
href=" p.28 Getting Maisie Married"/></page><page><image href="p.29 Army & Navy
Laughs"/></page><page><image href="p.31 Green Hornet
Buzzers"/></page><page><image href="p.33 Mighty Midgets"/></page><page><image
href="p.40 Ad"/></page><page><image href="p.41 Zebra"/></page><page><image
href="p.50 Buglerettes"/></page><page><image href=" p.51 Ad"/></page> </body>
</ACBF>
```

3. <http://digitalcomicmuseum.com/index.php?dlid=6411>

DC

```
<link rel="schema.DC" href="http://purl.org/dc/elements/1.1/">
<meta name="DC.title" content="Black Cat Comics #1">
<meta name="DC.identifier"
content="http://digitalcomicmuseum.com/index.php?dlid=6411">
<meta name="DC.description" content="n.1 Superhero ">
<meta name="DC.language" scheme="ISO639-1" content="en">
<meta name="DC.creator" content="Leon Harvey">
<meta name="DC.contributor" content="Joe Simon">
<meta name="DC.publisher" content="Home comics, Inc.">
```

```
<meta name="DC.type" scheme="DCMITYPE"
content="http://purl.org/dc/dcmitype/StillImage">
```

CBML

```
<figure>
<head>
Cover
<title> Black Cat Comics #1</title>
#1 (1946).
</head>
<graphic url="http://digitalcomicmuseum.com/index.php?dlid=6411 "/>
</figure>
</p>
<egXML xmlns="http://digitalcomicmuseum.com/">
<cbml:panel characters="#Frieda Shaffer #Hans Schivner #Jack Horne #Riely
#Mulligan #Black Cat">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel>
<cbml:panel = "p.2 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.2 Ad">
<cbml:panel= "p.3 Black Cat">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.3 Black Cat">
<cbml:panel= "p.10 Gamble with Death">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.10 Gamble with Death">
<cbml:panel= "p.16 Cross and Double Cross">
```

```

<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.16 Cross and Double Cross">
<cbml:panel="p.22 Black Cat Vs. Vampire!">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.22 Black Cat Vs. Vampire!">
<cbml:panel="p. 24 Savage Zoot Suit">
</cbml:panel="p. 24 Savage Zoot Suit">
<cbml:panel="p. 28 The Story of the Fighting Chetniks">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p. 28 The Story of the Fighting Chetniks">
<cbml:panel="p.35 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.35 Ad">
<cbml:panel="p.36 Mystery of 3 Monkeys"> <cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.36 Mystery of 3 Monkeys">
<cbml:panel="p.50 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.50 Ad">
<cbml:panel="p.51 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.51 Ad">
<cbml:panel="p.52 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.52 Ad">

```



```
</egXML>
</exemplum>
```

ABCF

```
<?xml version="1.0" encoding="utf-8"?> <ACBF xmlns="http://www.fictionbook-
lib.org/xml/acbf/1.0"> <meta-data> <book-info> <author activity="Writer"><first-
name>Leon</first-name><last-name>Harvey</last-name></author> <author
activity="Adapter"><first-name></last-name></author> <author activity="Artist"><first-
name>Joe</first-name><last-name>Simon</last-name></author> <book-title>Black
Cat Comics #1</book-title> <genre>superhero</genre> <characters><name>Frieda
Shaffer</name><name> Hans Schivner</name><name> Jack Horne</name><name>
Riely</name><name> Mulligan</name><name> Black Cat</name></characters>
<coverpage> <image href="p.1"/> </coverpage> <languages> <text-layer
lang="en" show="False"/> </languages> </book-info> <publish-info>
<publisher>Home comics, Inc.</publisher> <publish-date value="1946-01-
01">1946</publish-date> </publish-info> <document-info/> </meta-data> <body>
<page><image href="p.2 Ad"/></page><page><image href="p.3 Black
Cat"/></page><page><image href="p.10 Gamble with Death"/></page><page><image
href="p.16 Cross and Double Cross"/></page><page><image href="p.22 Black Cat Vs.
Vampire!"/></page><page><image href="p. 24 Savage Zoot
Suit"/></page><page><image href="p. 28 The Story of the Fighting
Chetniks"/></page><page><image href=" p.35 Ad"/></page><page><image href="p.36
Mystery of 3 Monkeys"/></page><page><image href="p.50
Ad"/></page><page><image href="p.51"/></page><page><image href="p.52
"/></page> </body> </ACBF>
```

4. <http://digitalcomicmuseum.com/index.php?dlid=5236>

DC

```
<link rel="schema.DC" href="http://purl.org/dc/elements/1.1/">
<meta name="DC.title" content="Black Cat Comics #3">
<meta name="DC.identifier"
content="http://digitalcomicmuseum.com/index.php?dlid=5236">
<meta name="DC.description" content="n.3 superhero">
<meta name="DC.language" scheme="ISO639-1" content="en">
<meta name="DC.creator" content="Blanche Carlin">
<meta name="DC.contributor" content="Al Avison">
<meta name="DC.publisher" content="Home comics, Inc.">
```

```
<meta name="DC.type" scheme="DCMITYPE"
content="http://purl.org/dc/dcmitype/StillImage">
```

CBML

```
<figure>
<head>
Cover
<title> Black Cat Comics #3</title>
#3 (1946).
</head>
<graphic url="http://digitalcomicmuseum.com/index.php?dlid=5236"/>
</figure>
</p>
<egXML xmlns="http://digitalcomicmuseum.com/">
<cbml:panel characters="#Black Cat #Jerry #Johnny Nebisco">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel>
<cbml:panel = "p.2 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.2 Ad">
<cbml:panel= "p.3 Black Cat">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.3 Black Cat">
<cbml:panel= "p.14 Alibi">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.14 Alibi">
<cbml:panel= "p.25 Johnny Nebisco">
<cbml:caption>
```

```

</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.25 Johnny Nebisco">
<cbml:panel="p.31 Jobless Jerry">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.31 Jobless Jerry
<cbml:panel="p.32 Ad">
</cbml:panel="p.32 Ad">
<cbml:panel="p.33 Swamp Gold">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.33 Swamp Gold">
<cbml:panel="p.41 Silent Command">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.41 Silent Command">
<cbml:panel="p.42 Lucifer's Lush"> <cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.42 Lucifer's Lush">
<cbml:panel="p.48 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.48 Ad">
<cbml:panel="p.49 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.49 Ad">
<cbml:panel="p.50 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel="p.50 Ad">
<cbml:panel="p.51 Ad">

```

```

<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.51 Ad">
</egXML>
</exemplum>

```

ACBF

```

<?xml version="1.0" encoding="utf-8"?> <ACBF xmlns="http://www.fictionbook-
lib.org/xml/acbf/1.0"> <meta-data> <book-info> <author activity="Writer"><first-
name>Blanche</first-name><last-name>Carlin</last-name></author><author
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name>Suser</last-name></author> <author activity="Adapter"><first-name></last-
name></author> <author activity="Artist"><first-name>Al</first-name><last-
name>Avison</last-name></author> <author activity="Colorist"><first-
name>Lee</first-name><last-name>Elias</last-name></author> <book-title>Black
Cat Comics #3</book-title> <genre>superhero</genre> <characters><name>Black
Cat</name><name> Jerry</name><name> Johnny Nebisco</name></characters>
<coverpage> <image href="p.1"/> </coverpage> <languages> <text-layer
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<publisher>Home comics, Inc.</publisher> <publish-date value="1946-01-
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Johnny Nebisco"/></page><page><image href="p.31 Jobless
Jerry"/></page><page><image href="p.32 Ad"/></page><page><image href="p.33
Swamp Gold"/></page><page><image href="p.41 Silent
Command"/></page><page><image href="p.42 Lucifer's
Lush"/></page><page><image href="p.48 Ad"/></page><page><image href="p.49
Ad"/></page><page><image href="p.50 Ad"/></page><page><image href="p.51
Ad"/></page> </body> </ACBF>

```

5. <http://digitalcomicmuseum.com/index.php?dlid=6424>

DC

```

<link rel="schema.DC" href="http://purl.org/dc/elements/1.1/">
<meta name="DC.title" content="Black Cat Western">
<meta name="DC.identifier"

```

```

content="http://digitalcomicmuseum.com/index.php?dlid=6424">
<meta name="DC.description" content="n.19 Western">
<meta name="DC.language" scheme="ISO639-1" content="en">
<meta name="DC.creator" content="Leon Harvey">
<meta name="DC.contributor" content="Lee Elias">
<meta name="DC.publisher" content="Home comics, Inc.">
<meta name="DC.type" scheme="DCMITYPE"
content="http://purl.org/dc/dcmitype/StillImage">

```

CBML

```

<figure>
<head>
Cover
<title> Black Cat Western</title>
#19 (1946).
</head>
<graphic url="http://digitalcomicmuseum.com/index.php?dlid=6424"/>
</figure>
</p>
<egXML xmlns="http://digitalcomicmuseum.com/">
<cbml:panel characters="#Black Cat #Groucho Marx #Winnie #Mary worth">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel>
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<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.2 Ad">
<cbml:panel= "p.3 Black Cat">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.3 Black Cat">
<cbml:panel= "p.12 Movie Flashes">

```

```

<cbml:caption>
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<cbml:caption>
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<cbml:panel= "p.19 Ad">
<cbml:caption>
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</cbml:panel= "p.19 Ad">
<cbml:panel= "p.21 Mary Worth">
</cbml:panel= "p.21 Mary Worth">
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<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.31 Mountin Terror ">
<cbml:panel= "p.32 Judo Tricks">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.32 Judo Tricks">
<cbml:panel= "p.35 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.35 Ad">
<cbml:panel= "p.36 Ad">
<cbml:caption>
</cbml:caption>
<cbml:balloon type="speech" who=""></cbml:balloon>
</cbml:panel= "p.36 Ad">
</egXML>
</exemplum>

```

ACBF

```

<?xml version="1.0" encoding="utf-8"?> <ACBF xmlns="http://www.fictionbook-
lib.org/xml/acbf/1.0"> <meta-data> <book-info> <author activity="Writer"><first-
name>Leon</first-name><last-name>Harvey</last-name></author> <author
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activity="Colorist"><first-name>Ken</first-name><last-name>Ernst</last-
name></author> <book-title>Black Cat Western</book-title>
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Marx</name><name> Winnie</name><name> Mary worth</name></characters>
<coverpage> <image href="p.1"/> </coverpage> <languages> <text-layer
lang="en" show="False"/> </languages> </book-info> <publish-info>
<publisher>Home comics, Inc.</publisher> <publish-date value="1946-01-
01">1946</publish-date> </publish-info> <document-info/> </meta-data> <body>
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Cat"/></page><page><image href="p.12 Movie Flashes"/></page><page><image
href="p.17 Captain Tootsie"/></page><page><image href="p.18 Winnie the
Waitress"/></page><page><image href="p.19 Ad"/></page><page><image href="p.21
Mary Worth"/></page><page><image href="p.31 Mountin
Terror"/></page><page><image href="p.32 Judo Tricks"/></page><page><image
href="p.35 Ad"/></page><page><image href="p.36 Ad"/></page> </body> </ACBF>

```