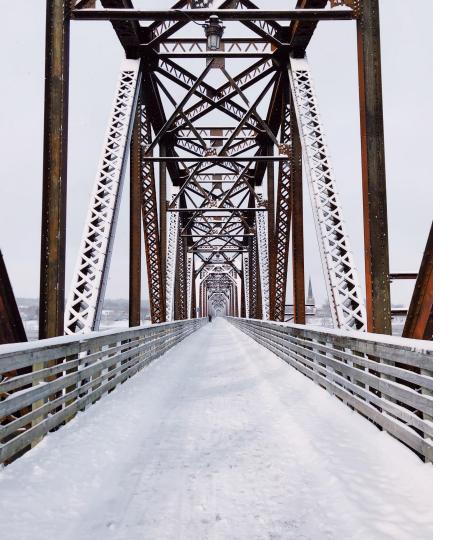
# METADATA MATTERS

Mike Nason (PKP, UNB)
Susan Collins (Crossref)



we have a lot of ground to cover today...

- → what is metadata?
- → why is it important?
- ⇒ schema
- → common errors

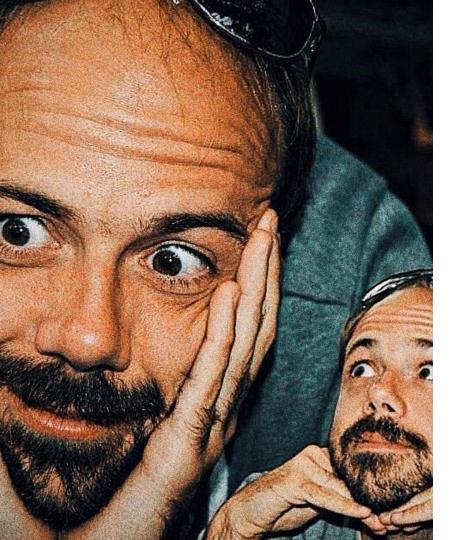
>> style vs <syntax />

- → shortcomings

- → ojs metadata
  - → for managers
  - → for editors
  - → for authors
- → where does it go?
- → "better practices"

## FEEL FREE TO INTERRUPT ME

## i want this to be a conversation



but, first, let's get to know one another!

# WHAIIS METADATA?

### data about data

Descriptive metadata is descriptive information about a resource. It is used for discovery and identification. It includes elements such as title, abstract, author, and keywords.

definition(s)

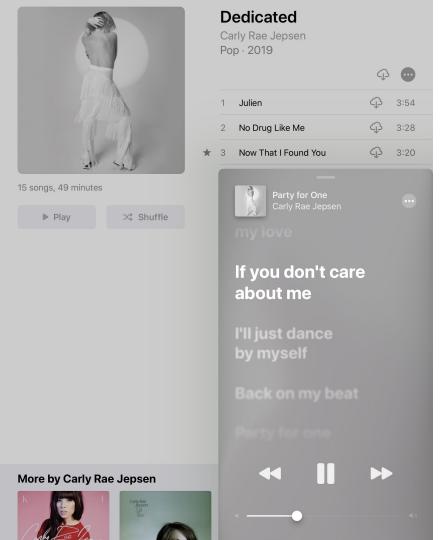
Structural metadata is metadata about containers of data and indicates how compound objects are put together, for example, how pages are ordered to form chapters. It describes the types, versions, relationships and other characteristics of digital materials.

definition(s)

**Administrative** metadata is information to help manage a resource, like resource type, permissions, and when and how it was created.

definition(s)

## some examples



### apple music/spotify



photo metadata

#### 6A4-99E5-4956-81D0-60D7F2819205.jpeg



original)

3

File Size 656 kB File Type MIME Type image/jpeg Image Width Image Height 2049 **Encoding Process** Baseline DCT, Huffi Bits Per Sample **Color Components** X Resolution Y Resolution YCbCr4:2:0 (2 2) **YCbCr Sub Sampling YCbCr Positioning** Centered sRGB Color Space Scene Capture Type Standard Compression JPEG (old-style)

Orientation

Horizontal (normal)

### photo metadata

Color Components		
Y Cb Cr Sub Sampling	YCbCr4:2:0 (2 2)	
JFIF		
JFIF Version	1.01	
Resolution Unit	None	
X Resolution	72	
Y Resolution	72	
FD0		
Orientation	Horizontal (normal)	
X Resolution	72	
Y Resolution	72	
Resolution Unit	inches	

Centered

Y, Cb, Cr, -

sRGB

2049

inches

Standard

JPEG (old-style)

2049

Baseline DCT, Huffman coding

### photo metadata

## Scene Capture Type

Image Width

Image Height Encoding Process

Bits Per Sample

Y Cb Cr Positioning

Components Configuration Flashpix Version Color Space

Exif IFD

Exif Version

Exif Image Width Exif Image Height

Compression

X Resolution Y Resolution Resolution Unit

**Thumbnail Offset** 

Case, Sue-Ellen. "Eve's Apple, or Women's Narrative Bytes." Technocriticism and Hypernarrative, special issue of Modern Fiction Studies, vol. 43, no. 3, 1997, pp. 631-50. Project Muse, doi:10.1353/mfs.1997.0056.

citations/references

# WHYDOES IT MATTER?



think about how hard it is to find things when you have a poor description of what you're looking for

## garbage in

## garbage out

## am i wrong to assume that you want things to be more easily found?

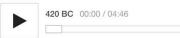
## EXERCISE (of 1?)

Metadata in the Wild

#### Dancing with a Goblin

by Young Satan In Love





#### **Digital Album**

Streaming + Download

Includes unlimited streaming via the free Bandcamp app, plus highquality download in MP3, FLAC and more.

#### Buy Digital Album \$5 CAD or more

Send as Gift

▶ 1. 420 BC 04:46

▶ 2. Back in Nam 01:48

▶ 3. Roar of War 02:19

▶ 4. Pleasures and Treasures 03:31

▶ 5. Bachelorette Party Band 03:56

▶ 6. PC Satan 02:52

▶ 7. Krystlewolf 03:50

released October 31, 2019

young satan - the voice | zebadaya - keys, voice | hecubus - drums, voice | pazuzu - bass, keys | lil' leviathan - guitar | captain peaking guitar | dusty - voice | 420 BC - voice | adamantium - guitar on pc satan

produced and mixed by ahhhh the goodlife at monopolized (Saint John, NB) | mastered by ryan morey | photography - desdemona | layout - dusty | model - the goblin









supported by



|dd **| >>|**|







#### Young Satan In Love

Fredericton, New Brunswick

#### **Following**

A litmus test for devotion to strange notions. Puts your hands together, pulls them apart.

edit artist bio

youngsatanisnotlove.

discography



Dancing with a Goblin Oct 2019



Government Weed



Educational Studies in Mathematics

July 2019, Volume 101, Issue 3, pp 301–324 | Cite as

## Behind the door: a critical look at the process of publication in *Educational Studies in Mathematics*



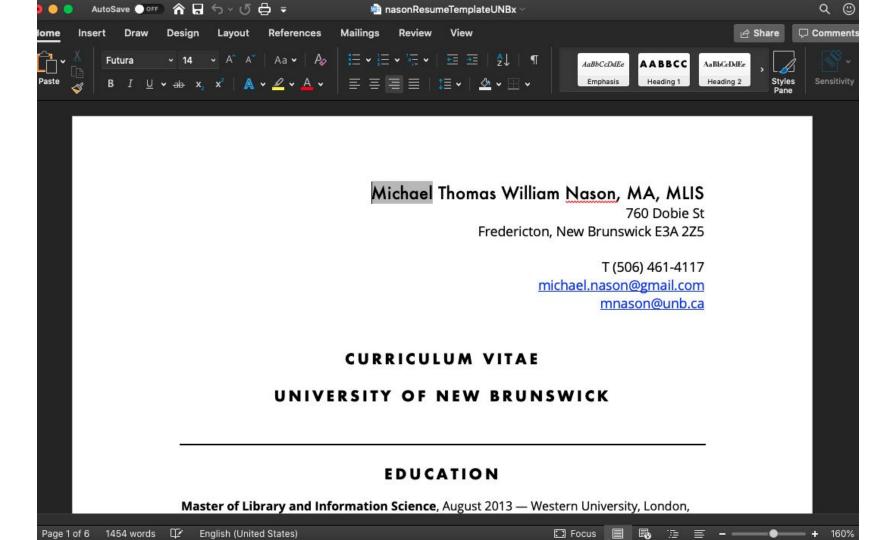
Article

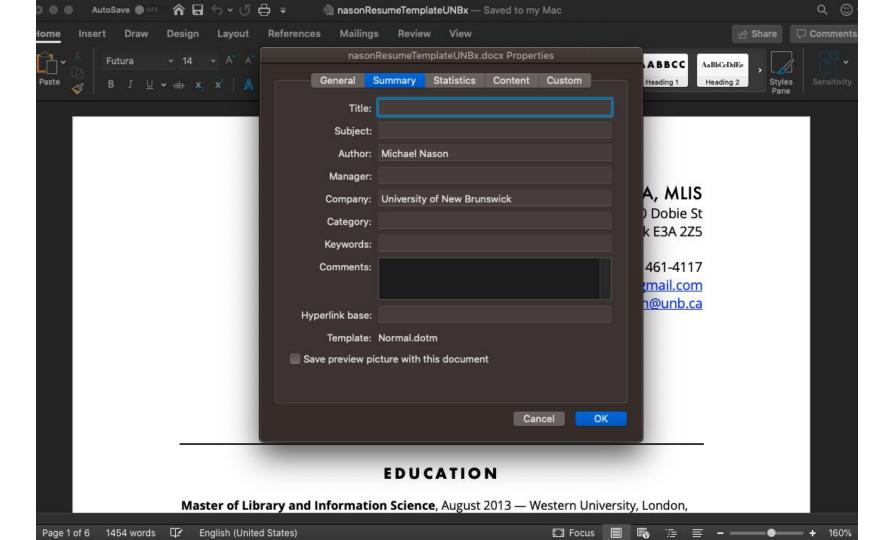
First Online: 22 June 2019

2 944 Shares Downloads

#### **Abstract**

To commemorate the 100th volume of *Educational Studies in Mathematics* (ESM) we invited all past and current editors to reflect on the journal's trends and internal processes. We





# WHAIIS A SCHEMA?

```
@article{Case1997,
  doi = \{10.1353/mfs.1997.0056\},
  url =
{https://doi.org/10.1353/mfs.1997.00
56},
  year = \{1997\},
  publisher = {Project Muse},
  volume = {43},
  number = \{3\},
  pages = \{631--650\},
  author = {Sue-Ellen Case},
  title = {Eve{\textquotesingle}s
Apple, or Women{\textquotesingle}s
Narrative Bytes},
  journal = {{MFS} Modern Fiction
Studies }
```

a SCHEMA is what determines the content you'll describe and how you will describe it.

- → MODS
- → METS
- → Dublin Core
- → VRA Core
- → Darwin Core
- → Crossref

there are a lot of schemas to choose from! varying disciplines use different schema.

## this ought to feel a little

familiar

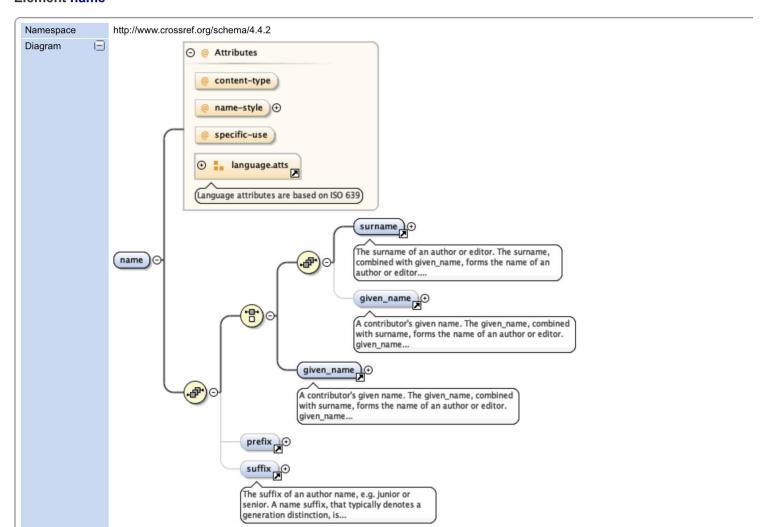
#### **Popular Citation Styles** And Who Uses Them! English Literature **MLA** Foreign Language Communications Religious Studies Psychology Education APA Business/Economics Nursina Linguistic Studies History Art History Chicago Fine Arts Anthropology Philosophy Engineering **IEEE** Computer Science Information Science Biology Physics CSE Chemistry

Geology

academia has not made things easy for themselves...

# i apologise in advance for this example...

#### **Element name**



Used by		Element	alt-nar	me						
Model		((surname , given_name{0,1})   given_name) , prefix{0,1} , suffix{0,1}								
Children		given_name, prefix, surfix, surname								
Instance							<pre>xmlns="http://www.crossref.org/schema/4.4.2"&gt;</pre>			
Attributes		QName	Туре	Default	Use					
		content-type			optional					
		language	restriction of xsd:NMTOKEN		optional					
		name-style	restriction of xsd:token	western	optional					
		specific-use			optional					
Source										

### i promise we won't do that again today...

...maybe.

# WHERE DOES IT ALL GO WRONG?

## let me ask you few questions.

when you are writing:

how would you make a title or heading in microsoft word?

#### when you are submitting:

a metadata field is

\*required\*, but you don't
know the information
offhand or it doesn't
exist. what would you do?

#### when you are publishing:

for years, your formerly-print journal listed all authors by first initial and full last name. you've started publishing online. how do you represent names?

it's not all on you...

sometimes, platforms and publishers are also bad at offering appropriate metadata options!

# OJS for example, does not currently have a corporate name field

Author first name and family name.

#### **Corporate name**

(ie, American Libraries

Association)

# First name: American Family name: Libraries

**Association** 

sometimes, poor ui, documentation or issues related to specific publishing cultures really mess things up!

#### some common issues

users do not use ISSNs consistently (or with respect to ISSN requirements) and do not always update title-level metadata

featuring Labour/Le Travail

- In my ILS (WorldCAT): Labour = Travail
- In Canadian Periodical Index Quarterly (CPI.Q): Labour/Le Travail
- In Academic Search Premier: Labour / Le Travail
- In JSTOR Arts & Sciences V Collection: Labour / Le Travail
- In ABI/INFORM Complete (ProQuest): Labour
- In Canadian Business and Current Affairs (CBCA) Complete (ProQuest): Labour
- In print: Labour / Le Travail
- In all online branding: Labour / Le Travail
- ISSN Registered Name: Labour

⇒ problem 2

inconsistently and, often, as a styling or theming alternative in an attempt to replicate print versions

Users put "volume", "issue", or "year" fields in the "issue title" or "description" fields. They do this for any number of reasons, like:

- Users may want to display their volume and issue numbers in Roman numerals (or whatever unique characters they used in print)
- Users want to use "Volume" and "Number" instead of "Vol." and "No." (the OJS standard display)
- Users may fill an issue description with any number of things that are not descriptions
- Users may fill "issue title" with something that is not a title. Intended use of this field is for something like a "special issue title".

sometimes poor knowledge of either OJS settings or formatting leads to problematic content in abstract fields.

abstracts can be made optional per section of your journal

## human names are very complicated

ORCID helps...

... but so will consistency.

many users either don't understand that OJS has translation features or they believe that having both languages displayed simultaneously is more important.

titles, abstracts, keywords, and almost everything else can have translated metadata in OJS... users can pick which language they want to read

#### ⇒ problem 6

## folks jam some truly wild stuff into title fields

## i have seen the following in title fields:

→ problem 6

- dois
- ✓ urls
- author names
- multiple languages
- html
- journal sections

→ title fields are for titles

imagine someone citing your article using citation management software

#### ALL CAPS IS A BAD IDEA FOR METADATA AND IF YOU WANT STYLES IN ALL CAPS THERE ARE BETTER WAYS!

this is a symptom of the biggest issue of all...

most of the time the issue is that users

# MISTAR RSTR

→ text editors are great
for illustrating this

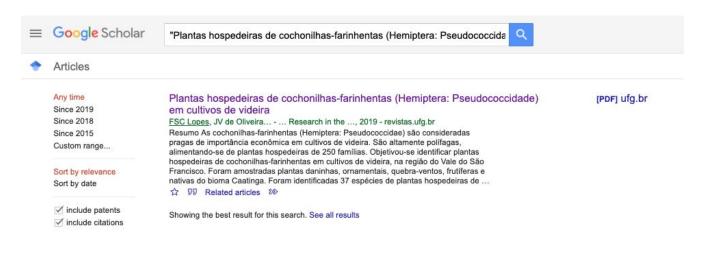
# WHYDOES THIS MATTERAGAIN?

- ⇒ google
- → crossref
- → citation assistant(s)

## let's look at google scholar for a second

#### How the Google Scholar indexing system works

- Google Scholar crawls the entire web looking for scholarly publications: articles, books, reports, theses, conference proceedings, preprints ...
- The indexing system identifies scholarly content, determines each item's bibliographic metadata, and groups all versions of an item together with this metadata in search results





#### What Scholar needs for indexing

- URLs for all articles
- Bibliographic information in the form of machine-readable metadata tags ("metatags")

mobilization in developing lung">

Bibliographic metatags tell the Scholar indexing system what the metadata for an article is: title, author, publication date, etc.



"Citation\_pdf\_url" metatag tells the indexing system which file to associate with this metadata



<meta name="citation\_title" content="The testis isoform of the phosphorylase kinase
 catalytic subunit (PhK-T) plays a critical role in regulation of glycogen</pre>



#### View source code from article landing page to view metatags

Right click or keyboard command to "View Page Source," depending on your browser



Search HTML source for "citation\_" to view metatags



```
→ C ① view-source:https://www.revistas.ufg.br/atelie/article/view/54065

<meta name="citation_journal_title" content="Ateliê Geográfico"/>
<meta name="citation_journal_abbrev" content="1"/>
<meta name="citation_issn" content="1982-1956"/>
<meta name="citation_author" content="Elaiz Aparecida Mensch Buffon"/>
```

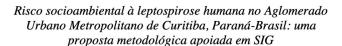


#### Metatags should match the published PDF:



```
i view-source:https://www.revistas.ufg.br/atelie/article/view/54065
<meta name="citation journal title" content="Ateliê Geográfico"/>
<meta name="citation journal abbrev" content="1"/>
<meta name="citation issn" content="1982-1956"/>
<meta name="citation author" content="Elaiz Aparecida Mensch Buffon"/>
<meta name="citation author institution" content="Universidade Federal do Paraná"/>
<meta name="citation author" content="Francisco de Assis Mendonca"/>
<meta name="citation author institution" content="Universidade Federal do Paraná"/>
<meta name="citation title" content="Risco socioambiental à leptospirose humana no Aglomerado Urbano Metro</pre>
<meta name="citation date" content="2019/04/20"/>
<meta name="citation volume" content="13"/>
<meta name="citation issue" content="1"/>
<meta name="citation firstpage" content="44"/>
<meta name="citation lastpage" content="61"/>
<meta name="citation doi" content="10.5216/ag.v13i1.54065"/>
<meta name="citation abstract html url" content="https://www.revistas.ufg.br/atelie/article/view/54065"/>
<meta name="citation language" content="bt"/>
<meta name="citation pdf url" content="https://www.revistas.ufg.br/atelie/article/download/54065/33043"/>
```

- Title, author, and publication dates match
- Bibliographic metatags written in (only) language/script of the article
  - e.g. citation\_title gives article title in Portuguese



Social-Environmental risk to human leptospirosis in Urban Agglomeration Metropolitan of Curitiba, Paraná-Brazil: a methodological proposal supported by GIS

Risque socio-environnemental pour la leptospirose humaine l'Agglomération Urbaine Métropolitaine de Curitiba, Paraná - Brésil: une proposition méthodologique basée sur le SIG

> Elaiz Aparecida Mensch Buffon Universidade Federal do Paraná eambuffon@gmail.com

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O conhecimento das áreas de risco socioambiental à leptospirose humana pode auxiliar no processo de tomada de decisão por gestores. A quantificação e o mapeamento desse risco por meio de um índice sintético possibilitam uma análise integrada da problemática. Nesse sentido, a presente pesquisa tem como objetivo propor e avaliar uma metodologia para o mapeamento do risco socioambiental à leptospirose humana por meio de um índice sintético que considera as vulnerabilidades e a exposição à doença. A proposta foi aplicada no Aglomerado Urbano Metropolitano de Curitiba, visando apresentar uma análise no nível de desagregação intraurbano e intrametropolitano, considerando um cenário de 2007 a 2013. Foram utilizadas técnicas estatísticas associada a cartografía de síntese (análise multicritério, cálculo álgebra de mapas, cálculo de incidência e matriz de cruzamentos), que culminaram nos seguintes resultados: 1) a metodologia se mostrou eficaz para sintetizar um grande número de dados, que possibilitou reduzir fenômenos complexos de inter-relações em mensagens simples e, 2) os maiores findices de risco socioambiental estão localizados tanto em regiões periféricas,



#### Publication date metatag should match date of formal publication for the issue





#### Problem: Incorrect publication dates in citation\_date metatag

- Known issue for OJS versions 3.0 and 2.4
- Usually upload date of article is included as publication date, e.g.
- <meta name="citation\_date" content="2019"/>

versus issue date and date listed in PDF:



#### A produção de espaço urbano e os fatores do processo de expansão do mercado imobiliário em Mossoró-RN

The production of urban space and the factors of the expansion process of the real estate market in Mossoró-RN

La producción del espacio urbano y los factores del proceso de expansión del mercado inmobiliario en Mossoró-RN

> Ademir Araújo da Costa Universidade Federal do Rio Grande do Norte ademir@ufrnet.br

> Eduardo Alexandre do Nascimento Universidade Federal do Rio Grande do Norte eanascimentoea@gmail.com

#### 20cmmo

As ações das forças políticas e do capital, em território mossoroense, têm engendrado a reunião de um conjunto de condições favoráveis ao expressivo desenvolvimento do mercado imobilário na cidade. Tal desenvolvimento se evidencia pela significativa quantidade de investimentos aplicados na produção de condomínios residenciais fechados, destinados às classes, média e alta, e na construção de conjuntos habitacionais "populares" dentro do Programa Minha Casa Minha Vida (PMCMV). Diante dos impactos da dinâmica do setor imobiliário sobre a economia e sobre a reconfiguração do espaço urbano local, é preciso indagar: quais fatores têm impulsionado o mercado de imóveis residenciais em Mossoró a partir dos primeiros anos de 2000 até o presente momento? Partindo dessa questão, define-se como objetivo central deste trabalho a análise das principais condições e fatores responsáveis pelo processo de expansão do mercado imobiliário em Mossoró a partir dos primeiros anos de 2000 até o presente momento?

Palavras-chave: Mossoró-RN; Mercado Imobiliário; Espaco Urbano; PMCMV



## **Fix:** Incorrect publication dates in citation\_publication\_date metatag

- Patches for supported versions of OJS include:
  - OJS 3.0.1 and 3.0.2: https://github.com/pkp/ojs/commit/9105b7ebc397f3647d500d62d30654b56a4f1e60.diff
  - OJS 3.0.0: <a href="https://github.com/asmecher/ojs/commit/c46a9d7a0873ba21ab7fec1cd1453cae215f9a3f.diff">https://github.com/asmecher/ojs/commit/c46a9d7a0873ba21ab7fec1cd1453cae215f9a3f.diff</a>
  - OJS 2.4.x: <a href="https://github.com/pkp/ojs/commit/6cf0078cff0556231696cf9979377381d18d721d.diff">https://github.com/pkp/ojs/commit/6cf0078cff0556231696cf9979377381d18d721d.diff</a>
- More information here: <a href="https://github.com/pkp/pkp-lib/issues/2739">https://github.com/pkp/pkp-lib/issues/2739</a>



#### Problem: Metatags no longer included after OJS upgrade

- Known issue for journals upgrading from OJS 2.x to OJS 3.0.1, 3.0.2, 3.1.0, and 3.1.1.
- In these cases, the Google Scholar plugin was not automatically enabled
- To test, view the source code for a few articles in each journal that upgraded.
  - If there is no citation\_title tag, your site is affected



#### Fix: Metatags no longer included after OJS upgrade

- **Fix**: re-enable Google Scholar plugin manually via admin dashboard for OJS instances with a small number of journals
- **Fix:** upgrade to OJS 3.1.2
- Fix: use an SQL command for large OJS instances with many journals:
   <a href="https://github.com/pkp/ojs/blob/stable-3\_1\_2/dbscripts/xml/upgrade/3.1.2\_">https://github.com/pkp/ojs/blob/stable-3\_1\_2/dbscripts/xml/upgrade/3.1.2\_</a>
   update.xml#L41..L42





Submissions

Issues

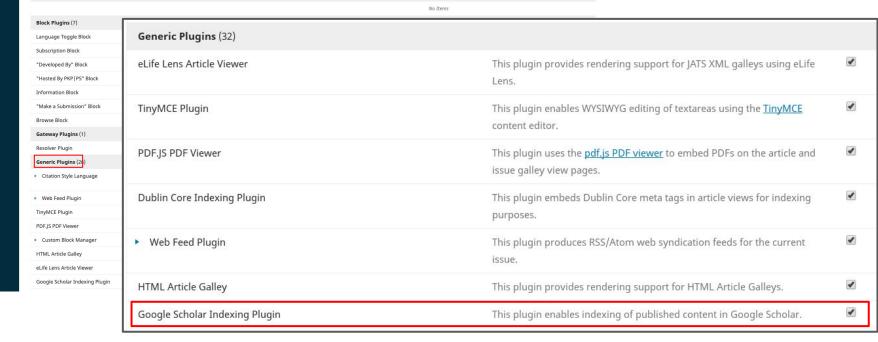
**Users & Roles** 

....

Statistic

Tasks 1		
Website Settings		
Appearance Information Archiving Languages Plugins Announcem	ents Navigation Menus	
Installed Plugins Plugin Gallery		
Plugins		
Name	Description	Enabled
Metadata Plugins (3)		
MODS 3.4 meta-data	Contributes MODS 3.4 schemas and application adapters.	€
Dublin Core 1.1 meta-data	Contributes Dublin Core version 1.1 schemas and application adapters.	€
OpenURL 1.0 meta-data	Contributes OpenURL 1.0 schemas and application adapters.	₩
Authorization Plugins (0)		

## **Fix:** Select the "Google Scholar Indexing Plugin" checkbox





#### **Problem**: Language mix up for multilingual metatags

- Combining different languages/scripts in metatags results in mixed, duplicate bibliographic information that prevents the item from being indexed properly in Scholar search results — and is confusing for users
- ex: including the translated version of the title in title metatags, e.g.
  - <meta name="citation\_title" content="War and Peace == Война и мир" />
- ex: listing authors in native script/language of home institution when it is not the language in which the article was written, e.g.
  - <meta name="citation\_author" content="Толстой, Лев Николаевич " />
  - <meta name="citation\_author" content="Tolstoy, Lev Nikolayevich "/>



## **Problem**: Using English by default for all metatags

 Using English in metatags, e.g. in the title metatags, when the article is in a different language results in citations to articles being missed and articles not being ranked as they should be

ex: <meta name="citation\_title" content=
"Socio-environmental risk to human leptospirosis in
the Metropolitan Urban Parcel of Curitiba,
Paraná-Brazil: a methodological proposal based on
GIS" />



http://www.revistas.ufg.br/index.php/atelie

Risco socioambiental à leptospirose humana no Aglomerado Urbano Metropolitano de Curitiba, Paraná-Brasil: uma proposta metodológica apoiada em SIG

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### **Fix:** Always use language of article for metadata

 Use only the language/script of the published PDF for all metatags. Don't duplicate metatag information in multiple scripts.

ex: <meta name="citation\_title" content=
"Risco socioambiental à leptospirose
humana no Aglomerado Urbano
Metropolitano de Curitiba, Paraná-Brasil:
uma proposta metodológica apoiada em
SIG" />



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#### Google Scholar indexing guidelines and resources for OJS

1. Google Scholar inclusion & troubleshooting guidelines

https://scholar.google.com/intl/en/scholar/inclusion.html

2. "Indexing Repositories: Pitfalls & Best Practices" presentation from 2015 Open Repositories conference (targeted to repositories, but has good general guidelines for both Scholar & web indexing)

https://www.or2015.net/wp-content/uploads/2015/06/or-2015-anurag-google-scholar.pdf

3. PKP Community Forum

https://forum.pkp.sfu.ca



## let's look at crossref for a bunch of seconds!

#### welcome back!

when you are publishing content yourself, it is important to remember what happens to it downstream

when you want something in OJS to look a certain way, modify the themes instead of altering the metadata!

If we're getting it all wrong, please let us know! Do not be afraid to ask/bother/harass us.

## SIPPORINGI

# THANKYOU! WE DID IT!

mnason@unb.ca | @ahemnason support@crossref.org