

bibliotek-o Content Accessibility Pattern

NOTE: the following represents the direction taken by the LD4L Labs and LD4P Ontology Group in the development of bibliotek-o and may not be fully formed. This pattern document was used internally to define a direction and is shared with the intention of contextualizing a pattern found within the ontology; terms specified below may not fully align to the ontology as published. Further, discussion of BIBFRAME 2.0 may be out of date.

2016 December

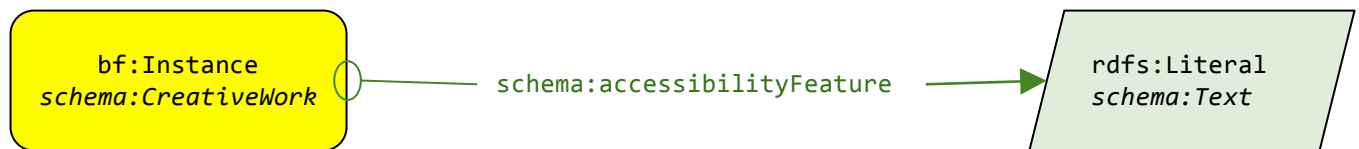
Overview

We recommend the use of the properties and classes recommended below for capturing bibliographic resource physical/digital content accessibility and hazard features. We recognize there will be implementation-level decision issues to be determined between which of these content accessibility features are captured as assertions on the Work, Instance or Item versus on the `bib:ContentAccessibility` class instance.

We will first request that the Library of Congress will change their datatype property, `bf:contentAccessibility`, to an object property, and then create the relevant `bf:ContentAccessibility` class and subclasses, as detailed below.

In the case that the Library of Congress decides to remain with their current datatype property, we will create the relevant property and classes in the `bib` namespace.

bibliotek-o Approach to Accessibility



Involved Classes

`bf:Instance` only for the domain; otherwise, no classes involved, as this is a datatype property.

Involved Properties

`schema:accessibilityFeature` (datatype property)

Label: accessibility feature

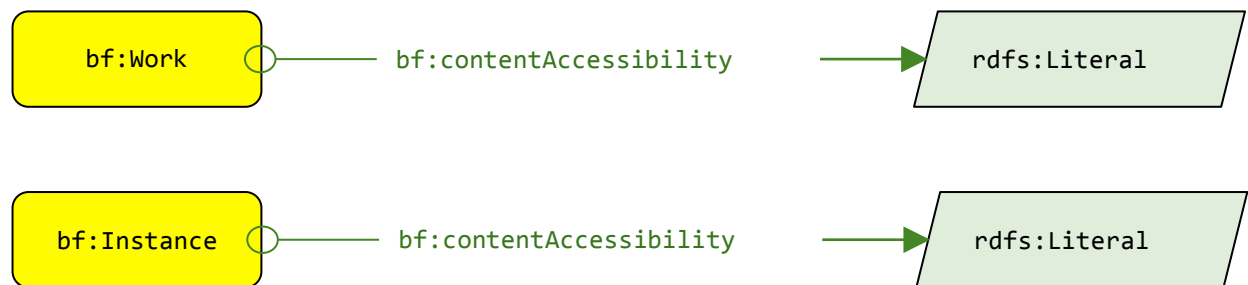
URI: <https://schema.org/accessibilityFeature>

Definition: "Accessibility feature of the resource, such as accessible media, alternatives and supported enhancements for accessibility (WebSchemas wiki lists possible values)." .

Domain: bf:Instance (*schema:CreativeWork* from the *schema.org* ontology)

Range: rdfs:Literal (*schema:Text datatype* from the *schema.org* ontology)

BF2 Approach to Accessibility



Involved Classes

None explicitly, as this is a datatype property with a loose recommendation (via `rdfs:comment`) to use a domain of `bf:Work` or `bf:Instance`.

Involved Properties

`contentAccessibility` (datatype property)

Label: Content accessibility note

URI: <http://id.loc.gov/ontologies/bibframe/contentAccessibility>

Definition: "Information that assists those with a sensory impairment for greater understanding of content, e.g., captions." .

Domain: n/a

Range: `rdfs:Literal`

Comment: "Used with Work or Instance"

Dcterms:modified: "2016-04-21 (New)" .

Side by Side Examples of BIBFRAME v. 2, LD4L-O v. 1

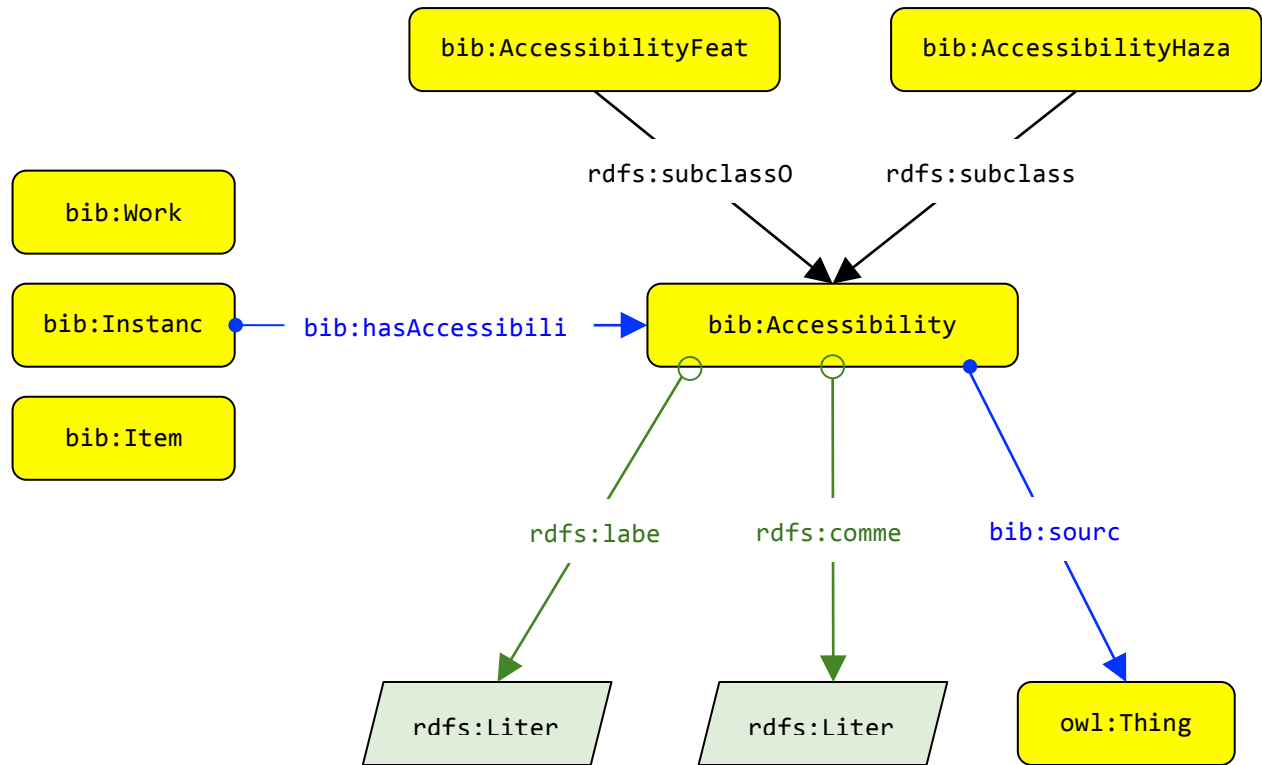
A video instance that has synchronized captions provided by the publisher.

```
# BIBFRAME2
_:i1 a bf:Instance ;
    bf:contentAccessibility "captions" .
```

```
# LD4L-O
_:i1 a ld4l:Instance ;
```

```
schema:accessibilityFeature "captions" .
```

Recommended Model



Recommended Classes

`bib:Accessibility`

Label: Accessibility

URI: TBD

Definition: Physical or digital accessibility characteristic of the resource. This class can represent either presence or absence of the characteristic. See <https://www.w3.org/wiki/WebSchemas/Accessibility>.

Subclassed as:

- `bib:AccessibilityFeature`
- `bib:AccessibilityHazard`

`bib:AccessibilityFeature`

Label: Accessibility Feature

URI: TBD

Definition: Accessibility feature of the resource, such as accessible media, alternatives and supported enhancements for accessibility. See

<https://www.w3.org/wiki/WebSchemas/Accessibility>.

Subclass of: bib:Accessibility

Subclassed as:

- bib:AlternativeText
- bib:Annotations
- bib:AudioDescription
- bib:Bookmarks
- bib:Braille (also subclasses bf:TactileNotation)
- bib:Captions
- bib:ChemMl
- bib:DescribedMath
- bib:DisplayTransformability
- bib:HighContrastAudio
- bib:HighContrastDisplay
- bib:Index (also subclasses bf:Work)
- bib:LargePrint
- bib:LongDescription
- bib:MathMl
- bib:PrintPageNumbers
- bib:ReadingOrder
- bib:SignLanguage
- bib:StructuralNavigation
- bib:SynchronizedAudioText
- bib:TableOfContents (also subclasses bf:TableOfContents?)
- bib:TaggedPdf
- bib:TactileGraphic
- bib:TactileObject
- bib:TimingControl
- bib:Transcript
- bib:TtsMarkup
- bib:Unlocked

bib:AccessibilityHazard

Label: Accessibility Hazard

URI: TBD

Definition: An accessibility characteristic of the resource that can be physiologically dangerous to some users, such as flashing, motion simulation, or sound. See

<https://www.w3.org/wiki/WebSchemas/Accessibility>.

Subclass of: bib:Accessibility

Subclassed as:

- bib:FlashingHazard

- bib:NoFlashingHazard
- bib:MotionSimulationHazard
- bib:NoMotionSimulationHazard
- bib:SoundHazard
- bib:NoSoundHazard

Recommended Properties

bib:hasAccessibility (object property)

Label: accessibility characteristic

URI: TBD

Definition: Connects a resource to an accessibility characteristic of the resource.

Domain: [Open]

Range: bib:Accessibility

Similar to (rdfs:comment): <https://schema.org/accessibilityFeature> ,

bf:contentAccessibility (if the Library of Congress doesn't make changes to BIBFRAME 2)

Core Accessibility Class Profile

bib:Accessibility

rdfs:label: A human-readable version of an Accessibility instance's name. Best practice says to include language typing for the label.

rdfs:comment: A human-readable description of an Accessibility instance, including any needed details on using the resource.

bib:hasSource (or bf:source given outstanding questions): The source of the Accessibility instance, whether an agent, another work, a software event, or other.

Example of Recommendation (bibliotek-o)

A video instance that has synchronized captions provided by the publisher.

```
# bibliotek-o
:i1 a bf:Instance ;
    bib:hasAccessibility :a1 .
:a1 a bib:Captions ;
    rdfs:label "captions"@en ;
    rdfs:comment "Closed caption of audio available in English and Spanish."
    dcterms:language <http://www.lexvo.org/page/iso639-3/eng> ;
    dcterms:language <http://www.lexvo.org/page/iso639-3/spa> ;
    bib:source :ag1 .
:ag1 a foaf:Organization ;
    foaf:name "Music video publishers" .
```

Areas for Future Work

For deciding the appropriate subclasses of `bib:AccessibilityHazard` and `bib:AccessibilityFeature`, and for further profiling and scoping of the Accessibility pattern (based off the following core pattern), we will approach library, technology, and accessibility communities for help; this may yield a future collaboration and BIBFRAME or LD4All Ontology Extension. Possible extension work could involve members behind the [WebSchemas Accessibility work](#), which we already leverage heavily in the recommended core.

Future work should include investigation for indicating Accessibility Standards compliance in the ontology pattern.