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D1.6 Fact-Checking Pivot Format - A Guide to a RSS pivot format, including ClaimReview and MediaReview

For Fact Checks Feed Providers

D1.6 Fact-Checking Pivot Format - A Guide to a RSS pivot format, including ClaimReview and MediaReview: For Fact Checks Feed Providers

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Content

1. Introduction

This document, produced as part of the European (DE FACTO) project, is a guide to set up a RSS pivot format including the ClaimReview and MediaReview specifications defined by the Schema.org consortium, for fact-checking articles.

This guide is intended to provide a common pivot format for the fact-checking supplier's partners of the DeFacto project. All items listed are important for distributing fact-checking articles with a maximum of metadata.

However, it remains a state of the art of good practices, a recommendation, to set up the richest possible RSS feed for the purposes of automating as much as possible content ingestion within the EDMO regional and national hubs, as well as improving indexing, referencing, and data reuse e.g. to build disinformation databases.

It is therefore more of an objective to be achieved within the framework of the project than a strict requirement.

2. RSS elements

The description of the recommended RSS pivot format reuses the standards defined by the RSS 2.0 format as well as the existing extensions. The full RSS format specification can be accessed at https://www.rssboard.org/rss-2-0-1.

2.1. RSS feeds

Elements	
channel	Definition of the fact-checking operator

2.2. channel

Elements	
title	Title of the RSS feed
link	Link of the RSS feed or homepage of the site
language	Language of the RSS feed
at:delete-entry [1]	Element used for an item, in the RSS feed, that has been removed or should not be used (kill). Namespace declation should be added in the rss content xmlns:at="http://purl.org/atompub/tombstones/1.0".
item	An **item** for each publication of a verification article (fact-check). https://www.rssboard.org/rss-profile#element-channel-item

Example RSS channel

```
<rss version="2.0" xml:base="https://factuel.afp.com/" xmlns:schema="https://schema.org"
   xmlns:media="http://search.yahoo.com/mrss/"
   xmlns:content="http://purl.org/rss/1.0/modules/content/"
   xmlns:at="http://purl.org/atompub/tombstones/1.0">
   <channel>
      <title>AFP Factuel</title>
      <link>https://factuel.afp.com</link>
      <language>fr</language>
      <at:deleted-entry ref="http://d.afp.com/doc-kill" when="2022-02-12T12:12:23" />
      <item>
         <guid isPermalink="false">http://d.afp.com/doc-kill</guid>
         <title>killed item</title>
         <link>https://factuel.afp.com/doc.afp.com.kill</link>
         ...
      </item>
      <item>
         <guid isPermalink="false">http://d.afp.com/doc-valid-1</guid>
         <title>valid item 1</title>
         <link>ttps://factuel.afp.com/valid-item-1</link>
         ...
```

```
        </item>
        <item>
            <guid isPermalink="false">http://d.afp.com/doc-valid-2</guid>
            <title>valid item 2</title>
            <link>ttps://factuel.afp.com/valid-item-2</link>
            ...
        </item>
    </channel>
</rss>
```

2.3. Item

In addition to the existing RSS elements, the pivot format defines additional elements allowing the additional support of useful data. https://www.rssboard.org/rss-specification#extendingRss

These elements use the following namespaces:

Prefix	Namespace	Support
schema	https://schema.org	Schema.org community-defined elements for the support of ClaimReview and MediaReview https://schema.org
media	http://search.yahoo.com/mrss/	RSS module used as a complement to to the <enclosure> element defining the media used by the article. https://www.rssboard.org/media-rss
content	http://purl.org/rss/1.0/modules/content/	RSS 1.0 module for supporting website content in any format. https://web.resource.org/rss/1.0/modules/content/
atom	http://www.w3.org/2005/Atom	Atom community-defined elements

Elements	
title	Article title https://www.rssboard.org/rss-profile#element-channel-textinput-title

guid	Unique identifier of the article.
	
	Attribute:
	
	• isPermaLink
	
	   ◦ true (default): in that case, the guid must be a permanent URL of the article
	
	   ◦ false : in that case, the guid must respect the format defined by Tag URI scheme.
	
	https://www.rssboard.org/rss-profile#element-channel-item-guid

Elements	
schema:version	Article version. Increment number for each revision.
link	URL of the fact check article on your site https://www.rssboard.org/rss-profile#element-channel-item-link
pubDate	Publication date of the article in dateTime format. The recommended DE FACTO date time format is ISO 8601 with the time zone indicated as an offset from UTC, for instance: 2022-04-29T11:36:31+01:00. https://www.rssboard.org/rss-profile#element-channel-item-pubdate
atom:updateDate	Last article update date in dateTime format
schema:review	An element containing ClaimReview and/or MediaReview to describe the statement or media that was checked. The content is in json-ld format escaped into a CDATA section. Attribute: • **encodingFormat** (mandatory) ⇒ defines the mime type of the content. For ClaimReview and MediaReview elements, the type is always **application/ld-json**
content:encoded	Full content or the first paragraphs of the article in HTML format escaped into a CDATA section. This content is meant to be automatically ingested by Content Management Systems or other automatic processes. DE FACTO is expected to get the full content to feed its CMS. https://www.rssboard.org/rss-profile#namespace-elements-content-encoded https://web.resource.org/rss/1.0/modules/content/
description	Short summary or first paragraph of the article in text. Essential element for RSS readers. https://www.rssboard.org/rss-profile#element-channel-item-description
enclosure	Illustrative image of the article. For compatibility with RSS aggregators, there should be no more than one **enclosure**. Required attributes: • url ⇒ media link • type ⇒ media mime type • length ⇒ media size https://www.rssboard.org/rss-profile#element-channel-item-enclosure
media:content or media:group	An element which supplements the enclosure element for additional description of any type of media. If there are several contents, the element is repeated. If the same content in different formats, **media:group** is used. https://www.rssboard.org/media-rss#primary-elements
author	Name of the author of the article. The element is repeated when there are several authors. https://www.rssboard.org/rss-profile#element-channel-item-author

Elements	
category	Definition of a category linked to the article. This can be done with free text or by using a taxonomy defined by the **domain** in the case of a controlled vocabulary. The element is repeated when there are several categories. https://www.rssboard.org/rss-profile#element-channel-item-category

2.3.1. Support for IPTC codes in the category element

In order to standardize the content of **categories**, it is possible to use the codes defined by the IPTC or other standardized domains. The definition of the domain to which the codes belong is specified by the use of the **domain**.

2.3.1.1. Examples

The use of IPTC codes in category elements is done via the **domain**.

IPTC Category

```
<category domain="https://cv.iptc.org/newscodes/subjectcode">04008033</category>
```

Media topic

```
<category domain="https://iptc.org/standards/media-topics">2000337</category>
```

2.3.1.2. Example with categories defined by an AFP factcheck

Media topic in texte

```
<category>Media topic/Conflicts, wars and peace< /category>
<category>Media topic/Science and technology</category>
<category>Media topic/Politics</category>
<category>Media topic/Politics/Elections</category>
<category>Media topic/Politics/Elections/campaign Election</category>
<category>Media topic/Society</category>
<category>Media topic/Science and technology/Social sciences</category>
<category>Media topic/Science and technology/Social sciences/History</category >
<category>Media topic/Conflicts, wars and peace/Massacre</category>
<category>Media topic/Religion and belief</category>
<category>Media topic/Society/Discrimination</category>
<category>Media topic/ Society/Discrimination/Racism</category>
```

Media topic with IPTC defined codes

```
<category domain="https://iptc.org/standards/m edia-topics">16000000</category>
<category domain="https://iptc.org/standards/media-topics">13000000</category>
<category domain="https://iptc.org/standards/ media-topics">11000000</category>
<category domain="https://iptc.org/standards/media-topics">20000574</category>
```

```
<category domain="https://iptc.org/standards/ media-topics">20000580</category>
<category domain="https://iptc.org/standards/media-topics">14000000</category>
<category domain="https://iptc.org/standards/ media-topics">20000742</category>
<category domain="https://iptc.org/standards/media-topics">20000747</category>
<category domain="https://iptc.org/standards/ media-topics">20000071</category>
<category domain="https://iptc.org/standards/media-topics">12000000</category>
<category domain="https://iptc.org/standards/ media-topics">20000775</category>
<category domain="https://iptc.org/standards/media-topics">20000777</category>
```

2.3.2. ISO 316 Country Code 6

The country codes defined by the ISO 3166 standard can be used by specifying one of the following values for the **domain** :

- https://www.iso.org/iso-3166-2 ⇒ 2-letters country code

- https://www.iso.org/iso-3166-3 ⇒ 3-letters country

Example Country Code

```
<category>Location/France</category>
<category domain="https://www.iso.org/iso-3166-2">EN</category>
<category domain="https://www.iso.org/iso-3166-3">ENG</category>
```

Country code with Geonames

```
<category domain="https://www.geonames.org">2988507</category>
```

2.4. Content RSS - content:encoded

Element uses for the content of the factcheck article. It is defined by RDF module Content : https://web.resource.org/rss/1.0/modules/content/ . Element is prefixed with **content**

The use of **content:encoded** element allows to set any entity-encoded or CDATA-escaped version of the content of the item.

Exemple content:encoded with HTML

```
<content:encoded><![CDATA[
   <h3 itemprop="leadparagraph" style="text-align: justify;">The unprecedented attacks launched by the
Hamas militant group against Israel and the country's subsequent retaliation in the Palestinian enclave of
Gaza are creating a minefield of misleading images and videos on social media. Posts purporting to show a
Hamas fighter shooting down an Israeli "war helicopter" in Gaza circulated online a day after the latest
conflict began. But the claim is false: the clip is a scene from a war simulation video game. </h3>
   <p style="text-align: justify;">"Hamas fighters shooting down Israel war helicopter in Gaza
(<em>sic</em>)," reads a <a href="https://perma.cc/59W4-7UNS" shape="rect">post</a> published on
Instagram on October 8, 2023.</p>
   <p style="text-align: justify;"><div class="g2picture"><figure itemscope
itemtype="http://schema.org/ImageObject"><img
```

```
    src="/medias/acc225c7ef701211e9c2fa1371f56ab6b38341b1-ipad.jpg" /><figcaption><span
    itemprop="caption">A screenshot shows the false claim, taken on October 10, 2023
    </span></figcaption></figure></div></p>
    ...]]>
    </content:encoded>
```

2.4.1. HTML media html structure

Content that embedded media contents such images and videos uses HTML5 element **figure**
included inside a **div** element with a NewsMLG2 class attribute.

class attribute for media	
g2picture [2]	any image content (gif, jpg, png, etc)
g2video	any video content (mp4, ogg, etc)

Figure struture for media content

Attributes	
itemscope	Defines the scope of associated metadata. No value.
itemtype	Possilbe values: • **https://schema.org/ImageObject** • **https://schema.org/VideoObject**

Elements	
img | **video**	Media type
figcaption	Use for caption or legend. It contains media description and credit information. Content data are set with span or div element with the following itemprop: • **caption** ⇒ For media description • **credit** ⇒ For media credit with **author** or/and **provider**

Example image with description & credit

```
<div class="g2picture">
  <figure itemscope itemtype="https://schema.org/ImageObject">
   <img src="image.jpg" />
   <figcaption>
    <span itemprop="caption">Video description</span>
    <div itemprop="credit">
     <span itemprop="author">Medialab</span><span itemprop="author">AFP</span
     ><span itemprop="provider">Vera.ai</span>
    </div>
   </figcaption>
  </figure>
```

```
    </div>
```

Example animated video with description & credit

```
<div class="g2video">
  <figure itemscope itemtype="https://schema.org/VideoObject">
    <video autoplay loop muted>
      <source
        src="vera-animated-video-dea957758d4ae5019c152c6d02930474.mp4"
        type="video/mp4"
      />
    </video>
    <figcaption>
      <span itemprop="caption">Video description</span>
      <div itemprop="credit">
        <span itemprop="author">Medialab</span><span itemprop="author">AFP</span
        ><span itemprop="provider">Vera.ai</span>
      </div>
    </figcaption>
  </figure>
</div>
```

2.4.1.1. Animated video as animated Gif

Animated video are short videos that act as animated Gif. In order to behave as such, **video** HTML element should use the following attributes:

- autoplay

- loop

- muted

```
<video autoplay loop muted>
...
</video>
```

2.4.1.2. Credit css style separator

Several author and provider elements can be set in the credit. In order to display them with a separator, following CSS style can be apply by default:

```
figcaption>div[itemprop="credit"]>span:after {
    content: "/ ";
}
figcaption>div[itemprop="credit"]>span:last-child:after {
    content: "";
}
```

2.4.2. HTML Media Warning metadata

Warning metadata is used to qualify if the content of a media may be perceived as being offensive. Warning Metatdata are using IPTC's contentwarning definition (https://cv.iptc.org/newscodes/contentwarning). Some of the most commun terms use below.

Values https://cv.iptc.org/newscodes/contentwarning	
death	Could be perceived as offensive due to the discussion or display of death
language	Could be perceived as offensive due to the language used
nudity	Could be perceived as offensive due to nudity
sexuality	Could be perceived as offensive due to the discussion or display of sexuality
suffering	Could be perceived as distressing due to the discussion or display of suffering or triggering topics, including suicide, eating disorders or self harm
violence	Could be perceived as offensive due to the discussion or display of violence

ContentWarning are used with microdata format using the following pattern:

```
<span itemscope itemtype="https://cv.iptc.org/newscodes">
   <meta itemprop="contentwarning" content="{}" >
   <meta itemprop="contentwarning" content="{}">
   ...
</span>
```

Example contentWarning on image

```
<div class="g2picture">
  <figure itemscope itemtype="https://schema.org/ImageObject">
   <span itemscope itemtype="https://cv.iptc.org/newscodes">
     <meta itemprop="contentwarning" content="language" />
     <meta itemprop="contentwarning" content="nudity" />
   </span>
   <img src="image.jpg" />
   <figcaption>
    <span itemprop="caption">Video description</span>
    <div itemprop="credit">
      <span itemprop="author">Medialab</span><span itemprop="author">AFP</span
      ><span itemprop="provider">Vera.ai</span>
    </div>
   </figcaption>
  </figure>
</div>
```

2.5. Media RSS - media:content

Media RSS elements are defined here: https://www.rssboard.org/media-rss.namespace

http://search.yahoo.com/mrss/ prefixed with **media**.

The use of elements defined by the media-rss extension allows adding metadata on media contained in the article. Attributes and child elements of **media:content**.

Attributes **https://www.rssboard.org/media-rss#media-content**	
url	Link to media content.
fileSize	Size in bytes of media content.
height	Height display size of the content.
width	Width display size of the content.
type	Media mime type.
medium	Type of media object (image | audio | video | document | executable). It simplifies decision making on the reader side and avoid ambiguities between Mine Type.

Elements	
media:credit	Media credit Optional attributes: • *scheme* ⇒ possible values are ***urn:ebu (default)*** or ***urn:yvs***. attribute role • *role* ⇒ value defined by domain scheme. By default, ***urn:ebu*** are defined by the European Broadcasting Union Role Codes. https://www.rssboard.org/media-rss#media-credit
media:copyright	Media copyright information Optional attribute: • *url* ⇒ link to terms of use or copyright information. https://www.rssboard.org/media-rss#media-copyright
media:description	Short description of the media. Optional attribute: • *type* ⇒ type of description text. Two possible values: ***plain*** (default), ***html***. https://www.rssboard.org/media-rss#media-description

Elements	
media:player	Allows to embed a remote player to play a media (audio or video) via an iframe. This element is required only if a direct media url attribute is not specified in the media:content element. It has the following attributes: • *url*: URL of the player that plays the media (required attribute) • *height*: height of the player (optional) • *width*: width of player (optional) https://www.rssboard.org/media-rss#media-player
media:embed	Sometimes player-specific embed code is needed for a player to play any video or audio. The media:embed element allows inclusion of such information in the form of key-value pairs with the media:param subelement. https://www.rssboard.org/media-rss#media-embed
media:thumbnail	Allows particular images to be used as representative images for the media object. This element can be used typically in combination with the media:embed element, to provide a representative image of a video. Attributes: • *url*: URL of the representative image • *width*: image width • *height*: image height https://www.rssboard.org/media-rss#media-thumbnails

2.5.1. media:group

The media:group element can be used to group multiple media:content elements that have the same content in different forms, for example, different resolutions.

Example: content distributed with different resolutions.

```
<media:group>
   <media:content fileSize="4696063" height="3333" type="image/jpeg"
url="medias/dea3220d9b4815e97477c8fa42ea0f9af93196ea-highRes.jpg" width= "5000"
medium="image">
    <media:credit>AFP</media:credit>
   </media:content>
   <media:content fileSize="234803" height="166" type="image/jpeg"
url="medias/dea3220d9b4815e97477c8fa42ea0f9af93196ea-lowRes.jpg" width= "250" medium="image">
    <media:credit>AFP</media:credit>
   </media:content>
   <media:content url="medias32MT6DP_3-640x360.mp4" medium="video" type="video/mp4">
    <media:credit>John Doe / afptv</media:credit>
```

```
      </media:content>
    </media:group>
```

Example: multimedia object embed

```
<media:content>
  <media:player url="https://peertube.fr/videos/embed/7bc5577c-b711-4a2e-9d58-1af327416688"/>
  <media:embed>
    <media:param name="width">850</media:param>
    <media:param name="height">480</media:param>
    <media:param name="title">JDLL</media:param>
    <media:param name="allowFullScreen">true</media:param>
    <media:param name="frameborder">0</media:param>
    <media:param name="allow">encrypted-media; picture-in-picture</media:param>
  </media:embed>
  <media:thumbnail url="https://peertube.fr/lazy-static/previews/2bd21b07-80a1-4dbe-8694-
93f8cd805fd1.jpg" height="480" width="850"/>
</media:content>
```

2.6. Example RSS Feed

Simple Example

```
<rss version="2.0" xml:base="https://factuel.afp.com/" xmlns:schema="https://schema.org"
xmlns:media="http://search.yahoo.com/mrss/"
xmlns:content="http://purl.org/rss/1.0/modules/content/">
  <channel>
   <title>AFP Factuel</title>
   <link>https://factuel.afp.com</link>
   <language>fr</language>
   <item>
     <guid>http://d.afp.com/doc-9zb9xd-5</guid>
     <title>Les juifs français 'protégés' par Pétain ? La thèse d'Eric Zemmour récusée par les
historiens</title>
     <link>https://factuel.afp.com/doc.afp.com.9ZB9XD</link>
     <schema:review encodingFormat="application/ld+json"><![CDATA[
     {
       "@context": "https://schema.org",
       "@type": "ClaimReview",
       "datePublished": "2022-02-11 11:40",
       "url": "",
       "claimReviewed": "Pétain a protégé les juifs français",
       "itemReviewed":
       {
         "author":
         {
            "name": "Eric Zemmour",
            "@type": "Person"
```

        },
        "datePublished": "2022-02-07",
        "appearance": "https://twitter.com/franceinter/status/1490594446114709514 ",
        "@type": "Claim"
      },
      "author":
      {
        "name": "AFP",
        "url": "https://factcheck.afp.com/",
        "sameAs": "https://twitter.com/AFPFactCheck",
        "logo":
        {
          "url": "https://www.afp.com/sites/all/themes/custom/afpcom/logo.png",
          "@type": "ImageObject"
        },
        "@type": "Organization"
      },
      "reviewRating":
      {
        "ratingValue": "1",
        "bestRating": "5",
        "worstRating": "1",
        "alternateName": "Faux",
        "@type": "Rating"
      }
    }
    ]]>
    </schema:review>
    <content:enclosed><![CDATA[
    <h2>Eric Zemmour a affirmé quePétainavait"protégé
        les juifsfrançai
        s"pendant l'Occupation, en procédant à
        un "trocsin
        i ....</h2>
        <time datetime="2022-02-11T12:38:00+0100">11 février 2022</time>revoici avec bonne orthographe de Raul Hillberg, ajoute précisions sur le nombre de juifs déportés depuis la France
        ]]></content:enclosed>
    <enclosure length="3513775" type="image/jpeg" url="https://hosting.afp.com/factcheck-rss/FR/medias/0bb409e64dd535010b71bc704dd08b93ccb129c3-highRes.jpg"/>
    <media:content fileSize="3513775" height="3327" type="image/jpeg" url="https://hosting.afp.com/factcheck-rss/FR/medias/0bb409e64dd535010b71bc704dd08b93ccb129c3-highRes.jpg" width="4500">
      <media:description>Le maréchal Pétain et le chancelier allemand Adolf Hitler, le 24 novembre 1940 à Montoire-sur-le-Loir.</media:description>

```
      <media:credit>AFP</media:credit>
    </media:content>
    <author>Julien NGUYEN DANG</author>
    <author>Jeremy TORDJMAN</author>
    <author>AFP France</author>
    <category>Location/France</category>
    <category>Media topic/Conflits, guerres et paix</category>
    <category>Media topic/Science et technologie</category>
    <category>Media topic/Politique</category>
    <category>Media topic/Politique/Elections</category>
    <category>Media topic/Politique/Elections/Campagne électorale</category>
    <category>Media topic/Société</category>
    <category>Media topic/Science et technologie/Sciences sociales</category>
    <category>Media topic/Science et technologie/Sciences sociales/Histoire</category>
    <category>Media topic/Conflits, guerres et paix/Massacre</category>
    <category>Media topic/Religion et croyance</category>
    <category>Media topic/Société/Discrimination</category>
    <category>Media topic/Société/Discrimination/Racisme</category>
    <category>Tags/Elections 2022</category>
    <pubDate>Fri, 11 Feb 2022 11:40:39 +0100</pubDate>
  </item>
 </channel>
</rss>
```

---

[1] The Atom "deleted-entry" Element: https://datatracker.ietf.org/doc/html/rfc6721

[2] AFP NewsMLG2 guide defines g2picture. g2image can be also used but it is deprecated. cf https://www.afp.com/communication/iris/Guide_to_AFP_NewsML-G2.html#heading_toc_j_62

3. schema:review

The element ***schema:review*** is an enrichment of the RSS format. It contains the expression of ***ClaimReview*** and ***MediaReview*** defined by Schema.org community. The content is expressed in a ***CDATA*** to escape XML validation and is in JSON-LD format https://www.w3.org/TR/json-ld/.

The ClaimReview and MediaReview are subtypes of the same Review type defining the following common structure. All properties defines in this structure is using https://shema.org vocabulary by default. Some custom property names are defined for defacto and used following namespace definition:

Defacto namespace definition

```
---
"@context": [
    "https://schema.org",
    { "defacto": "https://defacto-observatoire.fr/defacto-rss" }
  ]
---
```

Review Properties		
url	URL	Link to the page hosting the article.
datePublished	DateTime, Date	Date of publication of the fact-checking article.
author	Organization, Person	Author of the fact-checking or fact-checking article. It can be a person or an organization.
itemReviewed	Claim, MediaReviewItem	Definition of the claim verified by the fact-checker, or MediaReviewItem Full definitions at https://schema.org/Claim and https://schema.org/MediaReviewItem.
reviewRating	Rating	Rating of the statement or media item.

3.1. ReviewRating

The full definition of the ***reviewRating*** is defined at https://schema.org/Rating Numerical rating values are defined by fact-checking systems. Values are set from worst to best.

Example scoring:

- 1 = "False"
- 2 = "Mostly false"
- 3 = "Half true"
- 4 = "Mostly true"
- 5 = "True"

ReviewRating Properties		
@type	Fixed Value	Rating
alternateName	Text	Assessing the truthfulness of the statement by a word or short text. There is no controlled vocabulary for this value.
bestRating	Number	Best numerical rating according to the scale defined for the fact-checking system.
worstRating	Number	Worst possible value according to the scale defined for the fact-checking system. The value must be less than *bestRating*.
ratingValue	Number	Rating assigned to the declaration between the *bestRating* and *worstRating* if these are provided.
additionalType	URL	Enumeration of controlled values related to the alternateName property.

Example Rating

```
{
  "reviewRating":
  {
    "ratingValue": "1",
    "bestRating": "5",
    "worstRating": "1",
    "alternateName": "False",
    "@type": "Rating"
  }
}
```

Table 1. Example values for the alternateName (indexed by Google FactCheck Explorer)

False	https://toolbox.google.com/factcheck/explorer/search/false;hl=en
Misleading	https://toolbox.google.com/factcheck/explorer/search/misleading;hl=en
Unsupported	https://toolbox.google.com/factcheck/explorer/search/unsupported;hl=en
Missing context	https://toolbox.google.com/factcheck/explorer/search/missing%20context;hl=en
Partly false	https://toolbox.google.com/factcheck/explorer/search/partly%20false;hl=en

3.2. ClaimReview

The expression of a ClaimReview defines additional properties compared to the Review type.

The full definition is available at https://schema.org/ClaimReview

ClaimReview Properties		
@context	Fixed Value	https://schema.org
@type	Fixed Value	ClaimReview
claimReviewed	Text	Short summary of the claim to be verified.
associatedMediaReview	MediaReview	MediaReview associated with the ClaimReview. This property will list media related to the statement that have been verified. (cf MediaReview)

ClaimReview structure example

```
{
  "@context": "https://schema.org",
  "@type": "ClaimReview",
  "claimReviewed": "Claim description",
  "datePublished": "2022-02-11 11:40",
  "url": "http://article_link",
  "itemReviewed": {
    "@type": "Claim"
     // Claim to check
  },
  "author": {
    "name": "name of the organization that authored the fact check",
    "@type": "Organization"
  },
  "reviewRating": {
    "ratingValue": "1",
    "bestRating": "5",
    "worstRating": "1",
    "alternateName": "False",
    "@type": "Rating"
  }
}
```

3.2.1. ItemReviewed for ClaimReview

This property contains the description of the claim that is checked by the fact-checker in ClaimReview.

The full definition of the itemReviewed property is defined at https://schema.org/Claim.

ItemReviewed Properties		
@type	Fixed Value	Type of the item reviewed. The type is always *Claim*
author	Organization, Person	Author of the claim being checked. It can be a person or an organization.
url	URL	Link in support of the verified declaration.

ItemReviewed Properties		
datePublished	DateTime, Date	Date of the statement
firstAppearance	URL, CreativeWork	Link or description in which the statement first appears.
appearance	URL, CreativeWork, Array[URL or CreativeWork]	Links or descriptions of objects in which the statement appears. If there are several, the content is in the form of an array of CreativeWork links or descriptions

3.3. Appearences

The property ***appearance***, defined on https://schema.org/appearance, indicates the occurrences where the declaration being checked is found.

The simplest representation is an URL accessible on the internet to the resource where the declaration is located (website, social network, etc.).

The most complex representation can be a description of material content (book, film, podcast, photography, etc.) of the CreativeWork type.

If the declaration appears in more than one place, the value of the ***appearance*** is an array.

The ***appearance*** is found exclusively in an ***itemReview*** of type ***Claim***.

Example with a single referenced URL

```
{
    "appearance": "https://www.facebook.com/100063486369524/videos/2008381422654312"
}
```

Example with several URLs

```
{
    "appearance":
    [
    "https://www.facebook.com/100063486369524/videos/2008381422654312",
    "https://twitter.com/baa3465dd891455/status/1486057108307066880"
    ]
}
```

> ℹ️ In the case of several links, the author defined in the itemReview is not necessarily the author of all referenced links. To associate author or creator to each links, you must use CreativeWork type for each ***appearance***.

3.3.1. Appearance with CreativeWork

In order to give a finer description than a declaration, the property ***appearance*** can contain the occurrences of several media described by the type CreativeWork.

Using the CreativeWork type is sufficient to define all types. The list of properties below covers the

requirements for embedding media (text, photo, video and audio).

⚠️ The CreativeWork type is a generic type. It is advisable to use subtypes like MediaObject, Article, Blog, WebPage, SocialMediaPost, etc.

appearance Properties		
@type	CreativeWork	Sets the creativeWork type of the itemReview. The general value is CreativeWork which is suitable for all content. It is advisable to specialize the contents by using the subtypes of CreativeWork and to use the properties specific to the subtype used. https://schema.org/CreativeWork#subtypes
url	URL	Link to the content of the claim, usually the web page where the claim is contained.
abstract	Text	Brief description of the CreativeWork.
archivedAt	URL	Link to an archive provider where the link defined in *url* is archived.
countryOfOrigin	Text	Country code indicating from where the CreativeWork was published and/or created.
creator	Organization, Person	Creator of the content of the CreativeWork. Not to be confused with the author of the statement.
dateModified	DateTime	Date and time when the CreativeWork was modified.
datePublished	DateTime	Date and time when the CreativeWork was published.
headline	Text	Title of the CreativeWork.
interactionStatistic	InteractionCounter	Metrics representing how Internet users interact with the CreativeWork online.
isPartOf	Property	The domain that hosts the link defined in *url*, known as the URL's domain name. The domain name is stored in the property *name* of *isPartOf*, while *@type* of *isPartOf* is always 'WebSite'.
keywords	Text	Keywords associated with the CreativeWork.
name	Text	Name of the CreativeWork.
text	Text	Full text content of the CreativeWork. Not to be confused with an abstract or brief description of the CreativeWork.

3.3.1.1. MediaObject

If the URL of the claim refers to a media (photo, video or audio), the type used should be MediaObject. In addition to the above properties, MediaObject properties can be added as a complement.

MediaObject Properties

@type	MediaObject	CreativeWork subtype for media assets.
		The subtype should be specified for more granularity.
		
		    • AudioObject
		
		    • VideoObject
		
		    • ImageObject

contentUrl	URL	Link to the original media content (audio, image or video file).
contentSize	Text	Media file size.
duration	Duration	Duration of the media (audio or video).
startTime	DateTime, Time	Starting timecode for an audio or video extract.
endTime	DateTime, Time	End timecode for an audio or video clip.
height	Distance, QuantitativeValue	Height display size of the media.
width	Distance, QuantitativeValue	Width display size of the media.
encodingFormat	Text	Mime type of the media.
uploadedDate	Date	Date the media was uploaded.

AudioObject - Extract to audio track

```
{
   "appearance":
   {
      "@type": "AudioObject",
     "url": "https://www.franceinter.fr/emissions/le-7-9/le-7-9-du-lundi-07-fevrier-2022",
      "contentUrl": "https://media.radiofrance-podcast.net/podcast09/10241-07.02.2022-
ITEMA_22925015-2022F10761S0038-22.mp3",
      "description": "Pétain and the Jews of France",
      "name": "The 7/9",
      "duration": "9188",
      "encodingFormat": "mp3",
      "startTime": "01:46:52",
      "endTime": "01:48:42",
      "designer":
      {
       "@type": "Organization",
       "name": "France Inter"
      }
   }
}
```

VideoObject - Multiple videos of the same content on different links.

```
{
   "appearance":
    [
      {
        "@type": "VideoObject",
        "url": "https://www.facebook.com/100063486369524/videos/2008381422654312",
        "archivedAt": "https://archive.is/EXAMPLE",
        "designer":
        {
          "@type": "Person",
          "name": "Lokal West Indian"
        }
      },
      {
        "@type": "VideoObject",
        "url":  "https://twitter.com/i/status/1507346802802053123",
        "archivedAt": "https://archive.is/EXAMPLE1",
        "designer":
        {
          "@type": "Person",
          "name": "Beautiful Milk",
          "url": "https://twitter.com/baa3465dd891455"
        }
      },
      {
        "@type": "VideoObject",
        "url": "https://www.facebook.com/watch/?v=985014695406486",
        "archivedAt": "https://archive.is/EXAMPLE2",
        "designer":
        {
          "@type": "Person",
          "name": "Mali. 24 TV"
        }
      }
    ]
}
```

ImageObject - Same image shared on different links.

```
{
  "appearance": [
    {
      "@type": "ImageObject",
      "url": "https://twitter.com/LoupnoirAlpha/status/1493483404276420612/photo/1",
      "archivedAt": "https://archive.is/pZn8v",
      "creator": {
        "@type": "Person",
```

```
      "name": "BlackwolfAlpha"
    }
  },
  {
    "@type": "ImageObject",
    "url": "https://www.facebook.com/151335048220780/posts/2139858189368446/",
    "archivedAt": "https://archive.is/anga1",
    "creator": {
     "@type": "Person",
     "name": "MediaLiars"
    },
    "interactionStatistic" : [
     {
       "@type": "InteractionCounter",
       "interactionType": "https://schema.org/ShareAction",
       "userInteractionCount": 20
     },
     {
       "@type": "InteractionCounter",
       "interactionType": "https://schema.org/CommentAction",
       "userInteractionCount": 3
     }
    ]
   }
  ]
}
```

3.3.1.2. SocialMediaPost

If the URL of the claim refers to a social media post (Facebook, X (former Twitter), Youtube, Reddit, Instagram, Telegram, Mastodon etc.). The type used is https://schema.org/SocialMediaPosting.

SocialMediaPost Properties		
@type	SocialMediaPosting	A post to a social media platform, including blog posts, tweets, Facebook posts, etc.
url	URL	Post URL where to find the post in the social media.
identifier	Text or URL	Post unique identifier.
creator	Organization or Person	Who create the content.
isPartOf	CreativeWork or URL	Item that this post is part of. It can be a social media account or a channel.
datePublished	DateTime or Date	Date of first publication.
contentLocation	Place	Location from where the post's author says it is based.

SocialMediaPost Properties		
keywords	Text	Keywords or hashtag attached to this post. Multiple textual entries in a keyword list are typically delimited by commas(,) or by repeating the property.

> Using **creator** or **isPartOf**? Both attributes are valid. However to define the post' social account owner and to stay on Schema.org definition, **isPartOf** would be preferred. If **creator** is used, it will required to used some custom properties as defined below.

This is a Defacto's extension of both Person and Organization that's defines social media content's creator.

creator Properties		
@type	defacto:SocialMedia Posting	Person or Organization based extension for defacto. It defines a social media account from where the post comes from. All properties define in these 2 types are inherited.
defacto:dateCreated	DateTime, Date	Date creation of the social media account.
defacto:locationCreated	Text	Country code representing from where the post's author says they are based.
identifier	Text or URL	Post's unique identifier.
name	Text	Account name shows in the social media.
interactionStatistic	InteractionCounter	Metrics representing how users interact with this creator.

InteractionStatistics can be usefull to give metrics about the appearance actions (Like, shared, comments, etc).

interactionStatistic Properties		
@type	InteractionCounter	CreativeWork subtype for media assets. The subtype should be specified for more granularity.

interactionStatistic Properties		
interactionType [1]	InteractAction	The act of interacting with another person or organization. Used action type: • ShareAction • LikeAction • CommentAction • SubscribeAction • WatchAction • defacto:EngagementAction (nb shared on Reddit only)
userInteractionCount	Integer	The number of user interactions
interactionService	Website	The website where the interactions took place

Interaction example.

```
{
  "@context": [
    "https://schema.org",
    { "defacto": "https://defacto-observatoire.fr/defacto-rss" }
  ],
  "interactionStatistic": [
    {
      "@type": "InteractionCounter",
      "interactionType": "CommentAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "Facebook"
      },
      "userInteractionCount": "20"
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "ShareAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "Facebook"
      },
      "userInteractionCount": "4"
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "ShareAction",
      "interactionService": {
        "@type": "WebSite",
```

```
      "name": "Pinterest"
    },
    "userInteractionCount": "0"
  },
  {
    "@type": "InteractionCounter",
    "interactionType": "ShareAction",
    "interactionService": {
      "@type": "WebSite",
      "name": "Twitter"
    },
    "userInteractionCount": "0"
  },
  {
    "@type": "InteractionCounter",
    "interactionType": "defacto:EngagementAction",
    "interactionService": {
      "@type": "WebSite",
      "name": "Reddit"
    },
    "userInteractionCount": "0"
  }
 ]
}
```

SocialMediaPost - Creator and interactions.

```
{
 "@context": [
   "https://schema.org",
   { "defacto": "https://defacto-observatoire.fr/defacto-rss" }
 ],
 "appearance": {
   "url": "https://twitter.com/silvano_trotta/status/1735765521595875777",
   "@type": "SocialMediaPosting",
   "isPartOf": {
     "@type": "WebSite",
     "name": "twitter.com"
   },
   "identifier": "1735765521595875777",
   "datePublished": "2023-12-15T20:55:23",
   "text": "Une très vaste étude japonaise montre l'impensable : \nPlus de 70% des personnes décédées après
avoir été vaccinées avec le vaccin COVID-19 de Pfizer au Japon ont perdu la vie dans les 10 premiers jours
suivant la vaccination.\n\nhttps://www.cureus.com/articles/199892-analysis-of-the-association-between-
bnt162b2-mrna-covid-19-vaccination-and-deaths-within-10-days-after-vaccination-using-the-sex-ratio-in-
japan#!/ https://twitter.com/silvano_trotta/status/1735765521595875777/photo/1",
   "creator": {
     "@type": "defacto:SocialMediaAccount",
     "defacto:dateCreated": "2009-04-18T12:29:18",
```

```
      "identifier": "1735765521595875777",
      "name": "SILVANO TROTTA OFFICIEL",
      "interactionStatistic": [
        {
          "@type": "InteractionCounter",
          "interactionType": "FollowAction",
          "interactionService": {
            "@type": "WebSite",
            "name": "Twitter"
          },
          "userInteractionCount": 176726
        }
      ]
    },
    "interactionStatistic": [
      {
        "@type": "InteractionCounter",
        "interactionType": "ShareAction",
        "interactionService": {
          "@type": "WebSite",
          "name": "Twitter"
        },
        "userInteractionCount": "1179"
      }
    ],
    "sharedContent": [
      {
        "@type": "ImageObject",
        "contentURL": "https://pbs.twimg.com/media/GBatcY9XQAAFLrA.jpg"
      }
    ]
  }
}
```

3.4. MediaReview

The MediaReview is an alternative to ClaimReview and specializes in online media content. As defined by schema.org, best practices for linking ClaimReview and MediaReview are not fully finalized. However, it is possible to link the 2 concepts with the *associatedClaimReview* for a ClaimReview. The reciprocity to link a MediaReview to a ClaimReview is done with the *associatedMediaReview* (cf ClaimReview).

MediaReview are expressed in JSON-LD. See: https://www.w3.org/TR/json-ld/ The full definition is available at https://schema.org/MediaReview.

MediaReview Properties		
@type	Value Fixed	MediaReview

MediaReview Properties		
mediaAuthenticityCategory	MediaManipulation RatingEnumeration, MediaManipulation RatingEnumeration	enumeration. Possible values are: • DecontextualizedContent • EditedOrCroppedContent • OriginalMediaContent • SatireOrParodyContent • StagedContent • TransformedContent
originalMediaContextDescription	Text	Text describing the original media
originalMediaLink	URL	Link to the original media that has been modified
associatedClaimReview	ClaimReview	ClaimReview in which the processed media appears.
itemReviewed	MediaReviewItem	Definition of verified media occurrences

3.4.1. MediaReview structure

```
{
  "@context": "https://schema.org",
  "@type": "MediaReview",
  "datePublished": "2022-02-24",
  "url": "Link URL of the article",
  "author": {
    "@type": "Organization",
    "name": "AFP"
  },
  "mediaAuthenticityCategory": "Media authenticity value",
  "originalMediaContextDescription": "Original Media Source Description",
  "originalMediaLink": "Original Media URL",
  "associatedClaimReview": {
    "@type": "ClaimReview",
    "claimReviewed": "description of the associated claim"
  },
  "itemReviewed": {
    "@type": "MediaReviewItem",
    // Definition of reviewed media
  },
  "reviewRating": {
    "ratingValue": "1",
    "bestRating": "5",
```

```
    "worstRating": "1",
    "alternateName": "False",
    "@type": "Rating"
  }
}
```

3.4.2. ItemReviewed for MediaReview

This property contains the description of media occurrences checked by the fact-checker in MediaReview.

The full definition of the itemReviewed property is defined at https://schema.org/MediaReviewItem.

ItemReviewed Properties		
@type	Value Fixed	MediaReviewItem
mediaItemAppearance	MediaObject	CreativeWork subtype for media content. The subtype should be specified for more granularity. • AudioObject • VideoObject • ImageObject

Example with several videos of the same content whose content has been modified

```
{
  "@context": "https://schema.org",
  "@type": "MediaReview",
  "datePublished": "2021-09-02",
  "url": "https://factuel.afp.com/doc.afp.com.9YM7U4",
  "author": {
    "@type": "Organization",
    "name": "AFP",
    "url": "https://factcheck.afp.com/",
    "sameAs": "https://twitter.com/AFPFactCheck"
  },
  "mediaAuthenticityCategory": "EditedOrCroppedContent",
  "originalMediaContextDescription": "Centenaire de l'Armistice de 1918 : Arrivée de Vladimir Poutine à l'Arc de Triomphe",
  "originalMediaLink": "https://youtu.be/HPZoY7u20BY",
  "associatedClaimReview": {
    "@type": "ClaimReview",
    "claimReviewed": "Vladimir Poutine a ignoré la poignée de main d'Emmanuel Macron"
  },
  "itemReviewed": {
    "@type": "MediaReviewItem",
    "mediaItemAppearance": [
      {
```

```
    "@type": "VideoObject",
    "url": "https://www.facebook.com/100063486369524/videos/2008381422654312",
    "archivedAt": "https://archive.is/EXAMPLE",
    "creator": {
      "@type": "Person",
      "name": "Lokal Antillais"
    }
  },
  {
    "@type": "VideoObject",
    "url": "https://twitter.com/i/status/1486057108307066880",
    "archivedAt": "https://archive.is/EXAMPLE1",
    "creator": {
      "@type": "Person",
      "name": "Lait bel",
      "url": "https://twitter.com/baa3465dd891455"
    }
  },
  {
    "@type": "VideoObject",
    "url": "https://www.facebook.com/watch/?v=985014695406486",
    "archivedAt": "https://archive.is/EXAMPLE2",
    "creator": {
      "@type": "Person",
      "name": " Mali. 24 TV"
    }
  }
  ]
},
"reviewRating": {
  "ratingValue": "1",
  "bestRating": "5",
  "worstRating": "1",
  "alternateName": "Faux",
  "@type": "Rating"
}
}
```

4. Use cases

The use of ClaimReview and MediaReview applies to the following use cases:

1. A declaration published on a single link.

2. A statement published in several places.

3. Several statements.

4. A statement with a media review.

All examples are accessible on the GitHub project: https://github.com/AFP-Medialab/defacto-rss/tree/main/examples

4.1. Case 1: A single statement published on a single link

ClaimReview	appearance
Video shows Russian soldiers landing in Ukraine in 2022	https://www.facebook.com/kashmirnews1658/videos/728945791437637/

Example 1 - ClaimReview from a URL

```
{
  "@context": "https://schema.org",
  "@type": "ClaimReview",
  "claimReviewed": "Video shows Russian soldiers landing in Ukraine in 2022",
  "name": "Old video of Russian paratroopers jumping from plane shared with false claim about 'invasion of Ukraine'",
  "datePublished": "2022-03-25 10:10",
  "url": "https://factcheck.afp.com/doc.afp.com.326A3U7",
  "itemReviewed": {
    "@type": "Claim",
    "datePublished": "2022-02-24",
    "appearance": "https://www.facebook.com/kashmirnews1658/videos/728945791437637/",
    "author": {
      "@type": "Person",
      "name": "Multiple sources"
    }
  },
  "author": {
    "@type": "Organization",
    "@id": "https://factcheck.afp.com/",
    "name": "AFP",
    "url": "https://factcheck.afp.com/",
    "sameAs": "https://twitter.com/AFPFactCheck"
  },
  "reviewRating": {
```

```
    "@type": "Rating",
    "ratingValue": "1",
    "bestRating": "5",
    "worstRating": "1",
    "alternateName": "False"
  }
}
```

Example 2 - ClaimReview from a VideoObject

```
{
  "@context": "https://schema.org",
  "@type": "ClaimReview",
  "claimReviewed": "Video shows Russian soldiers landing in Ukraine in 2022",
  "name": "Old video of Russian paratroopers jumping from plane shared with false claim about 'invasion of
Ukraine'",
  "datePublished": "2022-03-25 10:10",
  "url": "https://factcheck.afp.com/doc.afp.com.326A3U7",
  "itemReviewed": {
    "@type": "Claim",
    "datePublished": "2022-02-24",
    "appearance": {
      "@type": "VideoObject",
      "contentUrl": "https://www.facebook.com/kashmirnews1658/videos/728945791437637/"
    },
    "author": {
      "@type": "Person",
      "name": "Multiple sources"
    }
  },
  "author": {
    "@type": "Organization",
    "@id": "https://factcheck.afp.com/",
    "name": "AFP",
    "url": "https://factcheck.afp.com/",
    "sameAs": "https://twitter.com/AFPFactCheck"
  },
  "reviewRating": {
    "@type": "Rating",
    "ratingValue": "1",
    "bestRating": "5",
    "worstRating": "1",
    "alternateName": "False"
  }
}
```

4.2. Case 2: Fact-check on a declaration published in several places

Several links to documents for the same claim: the same declaration was taken up in several places.

ClaimReview	appearance
EU riot police on the Champs-Elysées	https://twitter.com/LoupnoirAlpha/status/1493483404276420612/photo/1
	https://www.facebook.com/151335048220780/posts/2139858189368446/

Example 1 - Claim Review simple multi appearances

```
{
 "@context": "https://schema.org",
 "@type": "ClaimReview",
 "datePublished": "2022-02-17 01:47",
 "url": "https://factuel.afp.com/doc.afp.com.322R23R",
 "claimReviewed": "EU riot police on the Champs-Elysées",
 "author": {
  "name": "AFP",
  "url": "https://factcheck.afp.com/",
  "sameAs": "https://twitter.com/AFPFactCheck",
  "@type": "Organization"
 },
 "itemReviewed": {
  "@type": "Claim",
  "author": {
   "name": "LoupnoirAlpha",
   "@type": "Person"
  },
  "datePublished": "2022-02-15",
  "appearance": [
   "https://twitter.com/LoupnoirAlpha/status/1493483404276420612/photo/1",
   "https://www.facebook.com/151335048220780/posts/2139858189368446/"
  ]
 },
 "reviewRating": {
  "ratingValue": "1",
  "bestRating": "5",
  "worstRating": "1",
  "alternateName": "Misleading",
  "@type": "Rating"
 }
}
```

Example 2 - ClaimReview with CreativeWork multi appearance and archived pages

```json
{
  "@context": "https://schema.org",
  "@type": "ClaimReview",
  "datePublished": "2022-02-17 01:47",
  "url": "https://factuel.afp.com/doc.afp.com.322R23R",
  "claimReviewed": "EU riot police on the Champs-Elysées",
  "author": {
    "name": "AFP",
    "url": "https://factcheck.afp.com/",
    "sameAs": "https://twitter.com/AFPFactCheck",
    "@type": "Organization"
  },
  "itemReviewed": {
    "@type": "Claim",
    "author": {
      "name": "LoupnoirAlpha",
      "@type": "Person"
    },
    "datePublished": "2022-02-15",
    "appearance": [
      {
        "@type": "ImageObject",
        "contentUrl": "https://twitter.com/LoupnoirAlpha/status/1493483404276420612/photo/1",
        "archivedAt": "https://archive.is/pZn8v",
        "creator": {
          "@type": "Person",
          "name": "LoupnoirAlpha"
        }
      },
      {
        "@type": "ImageObject",
        "contentUrl": "https://www.facebook.com/151335048220780/posts/2139858189368446/",
        "archivedAt": "https://archive.is/anga1",
        "creator": {
          "@type": "Person",
          "name": "MediaMenteurs"
        }
      }
    ]
  },
  "reviewRating": {
    "ratingValue": "1",
    "bestRating": "5",
    "worstRating": "1",
    "alternateName": "Misleading",
    "@type": "Rating"
  }
}
```

```
      }
```

4.3. Case 3: Multiple claim reviews for one thematic Fact-Checking wrap-up

A thematic wrap-up may include multiple claims.

Multiple claimReviews for a same thematic FactCheck wrap-up article are possible but be aware that the whole article will not be eligible for the single fact check rich result on Google search. Nevertheless, it may be useful to keep those multiple ClaimReviews into your CMS and to build databases.

Theme	Source
Manipulated videos, recycled photos: renewed disinformation about the Russian-Ukrainian conflict	https://factuel.afp.com/doc.afp.com.323Q7N9

ClaimReview	appearance
a girl on a bus in Ukraine (...) waiting for Russian soldiers	https://twitter.com/terror_alarm/status/1492596807544750082/photo/1
Ukrainian troops preparing for potential combat	https://weibo.com/1650926392/LbMiODUqI?refer_flag=1001030103_
BBC warning of imminent nuclear war in Eastern Europe	https://www.facebook.com/104681915311714/videos/686860666025235/?_rdc=1&_rdr
	https://www.facebook.com/toscoentertianment/videos/1307046023053075/?_rdc=1&_rdr

Example - Multiple claim reviews

```
{
  "@context": "https://schema.org",
  "@graph": [
    {
      "@type": "ClaimReview",
      "datePublished": "2022-02-23 16:15",
      "url": "https://factuel.afp.com/doc.afp.com.323Q7N9",
      "name": "Manipulated videos, recycled photos: renewed disinformation about the Russian-Ukrainian
conflict",
      "@context": "https://schema.org",
      "claimReviewed": "a girl on a bus in Ukraine (...) waiting for Russian soldiers",
      "itemReviewed": {
```

         "@type": "Claim",
         "author": {
          "name": "Terror Alarm",
          "@type": "Person"
         },
         "datePublished": "2022-02-12",
         "appearance": "https://twitter.com/terror_alarm/status/1492596807544750082/photo/1"
        },
        "author": {
         "name": "AFP",
         "url": "https://factcheck.afp.com/",
         "sameAs": "https://twitter.com/AFPFactCheck",
         "logo": {
          "url": "https://www.afp.com/sites/all/themes/custom/afpcom/logo.png",
          "@type": "ImageObject"
         },
         "@type": "Organization"
        },
        "reviewRating": {
         "ratingValue": "1",
         "bestRating": "5",
         "worstRating": "1",
         "alternateName": "False",
         "@type": "Rating"
        }
       },
       {
        "datePublished": "2022-02-23 16:15",
        "@type": "ClaimReview",
        "url": "https://factuel.afp.com/doc.afp.com.323Q7N9",
        "name": "Manipulated videos, recycled photos: renewed disinformation about the Russian-Ukrainian
conflict",
        "@context": "https://schema.org",
        "claimReviewed": "Ukrainian troops preparing for potential combat",
        "itemReviewed": {
         "@type": "Claim",
         "author": {
          "name": "Unknown",
          "@type": "Person"
         },
         "datePublished": "2022-01-21",
         "appearance": "https://weibo.com/1650926392/LbMiODUqI?refer_flag=1001030103_"
        },
        "author": {
         "name": "AFP",
         "url": "https://factcheck.afp.com/",
         "sameAs": "https://twitter.com/AFPFactCheck",
         "logo": {
          "url": "https://www.afp.com/sites/all/themes/custom/afpcom/logo.png",
          "@type": "ImageObject"

```
      },
      "@type": "Organization"
    },
    "reviewRating": {
      "ratingValue": "1",
      "bestRating": "5",
      "worstRating": "1",
      "alternateName": "False",
      "@type": "Rating"
    }
  },
  {
    "@type": "ClaimReview",
    "datePublished": "2022-02-23 16:15",
    "url": "https://factuel.afp.com/doc.afp.com.323Q7N9",
    "name": "Manipulated videos, recycled photos: renewed disinformation about the Russian-Ukrainian
conflict",
    "@context": "https://schema.org",
    "claimReviewed": "BBC warning of imminent nuclear war in Eastern Europe",
    "itemReviewed": {
      "@type": "Claim",
      "author": {
        "name": "Unknown",
        "@type": "Person"
      },
      "datePublished": "2022-01-20",
      "appearance": [
        "https://www.facebook.com/104681915311714/videos/686860666025235/?_rdc=1&_rdr",
        "https://www.facebook.com/toscoentertianment/videos/1307046023053075/?_rdc=1&_rdr"
      ]
    },
    "author": {
      "name": "AFP",
      "url": "https://factcheck.afp.com/",
      "sameAs": "https://twitter.com/AFPFactCheck",
      "logo": {
        "url": "https://www.afp.com/sites/all/themes/custom/afpcom/logo.png",
        "@type": "ImageObject"
      },
      "@type": "Organization"
    },
    "reviewRating": {
      "ratingValue": "1",
      "bestRating": "5",
      "worstRating": "1",
      "alternateName": "False",
      "@type": "Rating"
    }
  }
]
```

```
}
```

4.4. Case 4: A ClaimReview with media review

The example below shows the use of a MediaReview item in a ClaimReview.
The *associatedMediaReview* property replaces the *itemReview* property in the ClaimReview.

ClaimReview	MediaReview: *EditedOrCroppedContent*
Vladimir Putin ignored Emmanuel Macron's handshake.	https://www.facebook.com/100063486369524/videos/2008381422654312
	https://twitter.com/baa3465dd891455/status/1486057108307066880
	https://www.facebook.com/watch/?v=985014695406486

Example - AssociateMediaReview

```
{
  "@context": "https://schema.org",
  "@type": "ClaimReview",
  "name": "No, Vladimir Putin did not ignore Emmanuel Macron's handshake.",
  "datePublished": "2022-02-08 12:59",
  "url": "https://factuel.afp.com/doc.afp.com.9YM7U4",
  "claimReviewed": "Vladimir Putin ignored Emmanuel Macron's handshake.",
  "associatedMediaReview": {
    "@type": "MediaReview",
    "datePublished": "2021-09-02",
    "url": "https://factuel.afp.com/doc.afp.com.9YM7U4",
    "author": {
      "@type": "Organization",
      "name": "AFP",
      "url": "https://factcheck.afp.com/",
      "sameAs": "https://twitter.com/AFPFactCheck"
    },
    "mediaAuthenticityCategory": "EditedOrCroppedContent",
    "originalMediaContextDescription": "Centenary of the 1918 Armistice: Vladimir Putin arrives at the Arc
de Triomphe",
    "originalMediaLink": "https://youtu.be/HPZoY7u20BY",
    "itemReviewed": {
      "@type": "MediaReviewItem",
      "mediaItemAppearance": [
        {
          "@type": "VideoObject",
          "url": "https://www.facebook.com/100063486369524/videos/2008381422654312",
          "archivedAt": "https://perma.cc/B4TG-EFFE",
          "creator": {
            "@type": "Person",
```

```
          "name": "Lokal Antillais"
        }
      },
      {
        "@type": "VideoObject",
        "url": "https://twitter.com/baa3465dd891455/status/1486057108307066880",
        "archivedAt": "https://perma.cc/NR8G-FHXU",
        "creator": {
          "@type": "Person",
          "name": "Lait bel",
          "url": "https://twitter.com/baa3465dd891455"
        }
      },
      {
        "@type": "VideoObject",
        "url": "https://www.facebook.com/watch/?v=985014695406486",
        "creator": {
          "@type": "Person",
          "name": " Mali. 24 TV"
        }
      }
    ]
  }
},
"author": {
  "@type": "Organization",
  "@id": "https://factcheck.afp.com/",
  "name": "AFP",
  "url": "https://factcheck.afp.com/",
  "sameAs": "https://twitter.com/AFPFactCheck",
  "logo": {
    "@type": "ImageObject",
    "url": "https://factuel.afp.com/sites/all/themes/custom/afpblog/v2/assets/img/Logo_AFP.svg"
  }
},
"reviewRating": {
  "@type": "Rating",
  "ratingValue": "1",
  "bestRating": "5",
  "worstRating": "1",
  "alternateName": "Truncated and misleading video"
}
}
```

4.5. Case 5: A ClaimReview from social media with interaction statistics

ClaimReview	appearance: SocialPostMedia
Le GIEC écrit que la mer va monter de 15 mères. Elle monte de combien la mer ? Le GIEC le dit : de deux millimères par an. [...] Au bout de cinquante ans, vous aurez zéro centimères.	https://www.youtube.com/watch?v=HkuCBxIbZ_g

Example below show a Youtube video. It shows claim social interactions (like, comments, shares, etc) on different platforms. .Example - InteractionStatistics

```
{
  "@context": [
    "https://schema.org",
    { "defacto": "https://defacto-observatoire.fr/defacto-rss" }
  ],
  "@graph": [
    {
      "id": "Medias/20-Minutes/Fact-checks/Rechauffement-climatique-Temperatures-en-baisse-hausse-du-niveau-de-la-mer-On-a-verifie-une-interview-virale",
      "title": "Réchauffement climatique : Températures en baisse, hausse du niveau de la mer ... On a vérifié une interview virale",
      "url": "https://defacto-observatoire.fr/Medias/20-Minutes/Fact-checks/Rechauffement-climatique-Temperatures-en-baisse-hausse-du-niveau-de-la-mer-On-a-verifie-une-interview-virale/",
      "provider": {
        "id": "Medias/20-Minutes",
        "name": "Fake off - 20 Minutes",
        "url": "https://www.20minutes.fr/societe/desintox/"
      },
      "leadParagraph": "<div><p>Dans une vidéo intitulée 'GIEC, 30 ans de mensonges', Christian Gerondeau affirme que les températures baissent depuis 2015 et questionne l'impact de la France dans les émissions de gaz à effet de serre. Des affirmations à recontextualiser</p></div>",
      "datePublished": "2023-06-15T14:25:57+0000",
      "authors": "Mathilde Cousin et Emilie Jehanno (20 Minutes)",
      "topics": ["Environnement"],
      "keywords": [
        "Réchauffement climatique",
        "France",
        "giec",
        "Environnement"
      ],
      "image": [
        {
          "url": "https://defacto-observatoire.fr/download/Medias/20-Minutes/Fact-checks/Rechauffement-climatique-Temperatures-en-baisse-hausse-du-niveau-de-la-mer-On-a-verifie-une-interview-virale/WebHome/1200x768_sur-la-loire-entre-saumur-et-angers-des-banc-de-sable-apparaissent-alors-quils-devraient-etre-immerges-les-berges-devaient-etre-sous-5-metre-d-eau-mais-le-manque-de-pluie-et-les-nappes-phrea?rev=1.1"
        }
      ],
      "claimReviews": [
        {
          "itemReviewed": {
```

```json
        "author": {
         "name": "Christian Gerondeau",
         "url": "",
         "sameAs": null,
         "logo": null,
         "@type": "Person"
        },
        "datePublished": "2023-06-09T22:00:00+0000",
        "appearance": {
         "url": "https://www.youtube.com/watch?v=HkuCBxIbZ_g",
         "name": "",
         "@type": "SocialMediaPosting",
         "isPartOf": {
          "@type": "WebSite",
          "name": "youtube.com"
         },
         "identifier": "HkuCBxIbZ_g",
         "datePublished": "2023-06-02T10:30:04Z",
         "headline": "GIEC : 30 ans de mensonges - Le Zoom - Christian Gerondeau - TVL",
         "keywords": [
          "alternative TVL TVlibertés TV Information Réinformation Ré-information",
          "Élise Blaise",
          "Martial Bild",
          "Pierre Bergerault",
          "Économie Politique Société",
          "Le journal",
          "Journal TV",
          "Pierre Jovanovic",
          "Charles Gave",
          "Olivier Delamarche",
          "Anne Brassié",
          "Covid-19 Ukraine Russie",
          "Média indépendant",
          "Christian Perronne",
          "Gilets Jaunes"
         ],
         "duration": "PT27M35S",
         "abstract": "Pour vous procurer \"Le climat par les chiffres\" : https://bit.ly/3IQ69v5\n---[...]",
         "creator": {
          "@type": "WebPage",
          "defacto:dateCreated": "2018-09-24T09:27:16Z",
          "defacto:locationCreated": "FR",
          "identifier": "HkuCBxIbZ_g",
          "name": "Chaîne officielle TVL",
          "interactionStatistic": [
           {
            "@type": "InteractionCounter",
            "interactionType": "SubscribeAction",
            "interactionService": {
             "@type": "WebSite",
```

```json
        "name": "YouTube"
      },
      "userInteractionCount": 739000
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "CreateAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "YouTube"
      },
      "userInteractionCount": 3731,
      "result": {
        "@type": "VideoObject"
      }
    }
  ]
},
"interactionStatistic": [
  {
    "@type": "InteractionCounter",
    "interactionType": "CommentAction",
    "interactionService": {
      "@type": "WebSite",
      "name": "Facebook"
    },
    "userInteractionCount": "1444"
  },
  {
    "@type": "InteractionCounter",
    "interactionType": "ShareAction",
    "interactionService": {
      "@type": "WebSite",
      "name": "Facebook"
    },
    "userInteractionCount": "7199"
  },
  {
    "@type": "InteractionCounter",
    "interactionType": "ShareAction",
    "interactionService": {
      "@type": "WebSite",
      "name": "Pinterest"
    },
    "userInteractionCount": "0"
  },
  {
    "@type": "InteractionCounter",
    "interactionType": "ShareAction",
    "interactionService": {
```

```json
        "@type": "WebSite",
        "name": "Twitter"
      },
      "userInteractionCount": "3661"
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "defacto:EngagementAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "Reddit"
      },
      "userInteractionCount": "0"
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "WatchAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "YouTube"
      },
      "userInteractionCount": "350173"
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "CommentAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "YouTube"
      },
      "userInteractionCount": "5498"
    },
    {
      "@type": "InteractionCounter",
      "interactionType": "LikeAction",
      "interactionService": {
        "@type": "WebSite",
        "name": "YouTube"
      },
      "userInteractionCount": "17428"
    }
  ]
  },
  "@type": "Claim"
},
"reviewRating": {
  "ratingValue": "",
  "alternateName": null,
  "@type": "Rating"
},
```

      "datePublished": "2023-06-15T14:25:57+0000",
      "url": "https://defacto-observatoire.fr/Medias/20-Minutes/Fact-checks/Rechauffement-climatique-Temperatures-en-baisse-hausse-du-niveau-de-la-mer-On-a-verifie-une-interview-virale/",
      "claimReviewed": "Le GIEC écrit que la mer va monter de 15 mères. Elle monte de combien la mer ? Le GIEC le dit : de deux millimères par an. [...] Au bout de cinquante ans, vous aurez 10 centimères.",
      "@type": "ClaimReview"
    }
   ],
   "isBasedOnUrl": "https://www.20minutes.fr/planete/rechauffement-climatique/4040393-20230610-rechauffement-climatique-temperatures-baisse-hausse-niveau-mer-verifie-interview-virale#xtor=RSS-149",
   "interactionStatistic": null
  }
 ]
}

5. Conclusion

This document provides an on-going state-of-the art and recommendation to use ClaimReview and MediaReview within Fact-checking RSS feeds in order to facilitate automation of content ingestion within the De Facto project, that can be useful also for EDMO regional and national hubs platforms. Richer in metadata the content will be, easier it will be to build disinformation databases for Social Sciences afterwards. The enrichment in metadata can also take place on each disinformation observatory platform. In this respect, we welcome feedback on this document to continue the discussion on this topic and to improve this document. Feel free to connect with medialab@afp.com for this purpose.

6. References

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- Translating the video and visual fact-check terminology to Schema.org structured data : https://docs.google.com/document/d/1jRbX2IesVQrWvKpehb8ntSMKe0D88bZp3nK8ZAjq6E4/edit

- Claim review project: https://www.claimreviewproject.com/mediareview/an-open-process

- Duke Reporters Lab Tech & Check news: https://reporterslab.org/tech-and-check/

- Scripts and documentation for De Facto database enrichment: https://github.com/medialab/defacto-enrichment-public