The Weighted Interests Vocabulary 0.5

Namespace Document 14 September 2010

This version:
http://purl.org/ontology/wi/20100914/weightedinterests.html
(OWL, N3)
Latest version:
http://purl.org/ontology/wi/core# (OWL, N3)
Previous version:
http://purl.org/ontology/wi/20100812/weightedinterests.html
(OWL, N3)
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Weighted Interests Vocabulary repository
Source code, examples, graphics, ...
SMI ontologies mailing list
Browse Archives
Weighted Interests Vocabulary at SMI
Announcements, descriptions, use cases, ...
SMI Webspace Index
Ontologies, vocabularies, tools, applications, ...

Abstract

The *Weighted Interests Vocabulary* specification provides basic concepts and properties for describing describing preferences (interests) within contexts, their temporal dynamics and their origin on/ for the Semantic Web. This document contains a RDFa description of the *Weighted Interests Vocabulary* and some additional information and examples.

Status of This Document

The *Weighted Interests Vocabulary* is with the release of version 0.4 now an union of the *Weighted Interest Vocabulary* , the *E-foaf:interest Vocabulary* and the *Interest Mining Ontology*. That means, all interest related ontologies are now merged under one hood and some concepts are proper modeled now. The design of this interest ontology is also strongly influenced by the outcome of the User (weighted) Interests Ontology working group from Hypios VoCamp Paris 2010.
The template of this specification is derived from the FOAF Vocabulary Specification, which was created by Dan Brickley and Libby Miller, and the Music Ontology Specification, which was created by Yves Raimond. It was modified and extended by Bob Ferris. Furthermore, a modified and extended version of Danbri's SpecGen version was used to generate most of the RDFa statements of the Weighted Interests Vocabulary for this specification (see here for SpecGen version 6 by Bob Ferris).

This document is created by combining the RDFS/OWL machine-readable *Weighted Interests Vocabulary* with a human-readable *HTML* representation that includes RDFa annotations. Future versions may incorporate *multilingual translations* of term definitions. The RDF/XML version of the specification is also available directly from the namespace URI. RDF/N3 representations could be access via the links above.
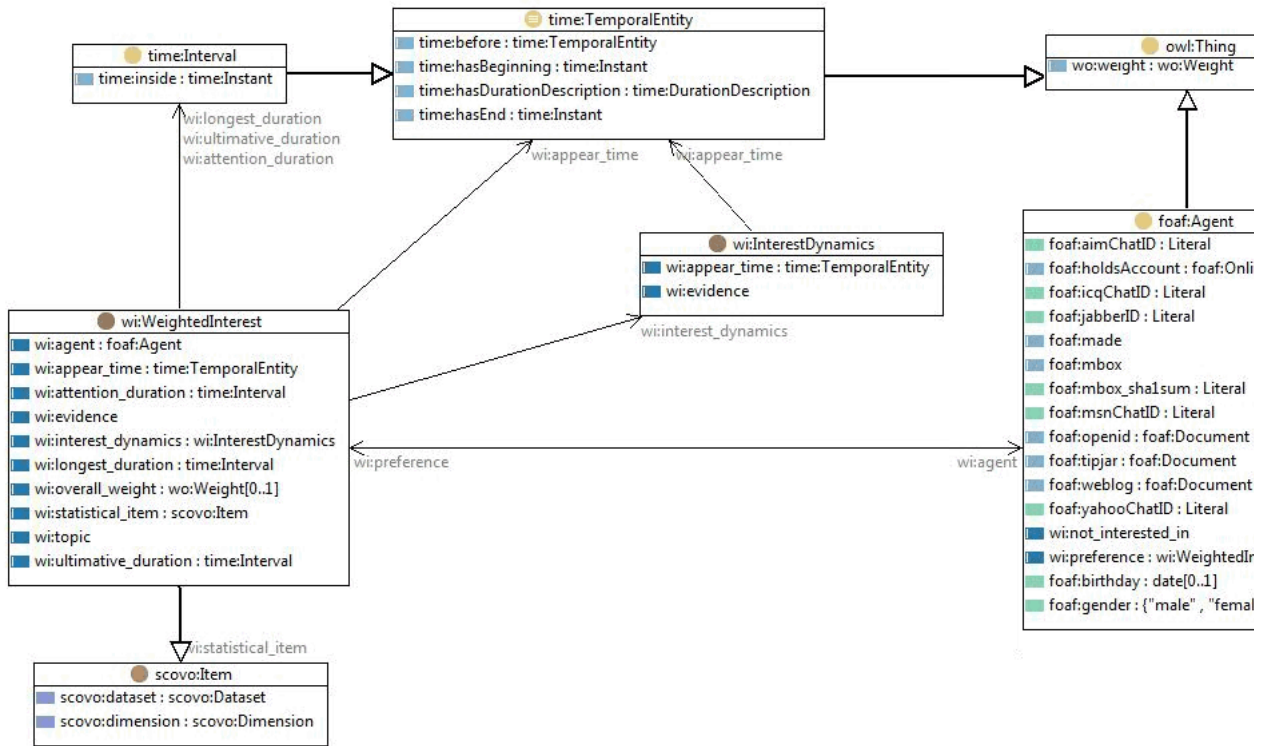
The authors welcome comments on this document, preferably via the author's email addresses.
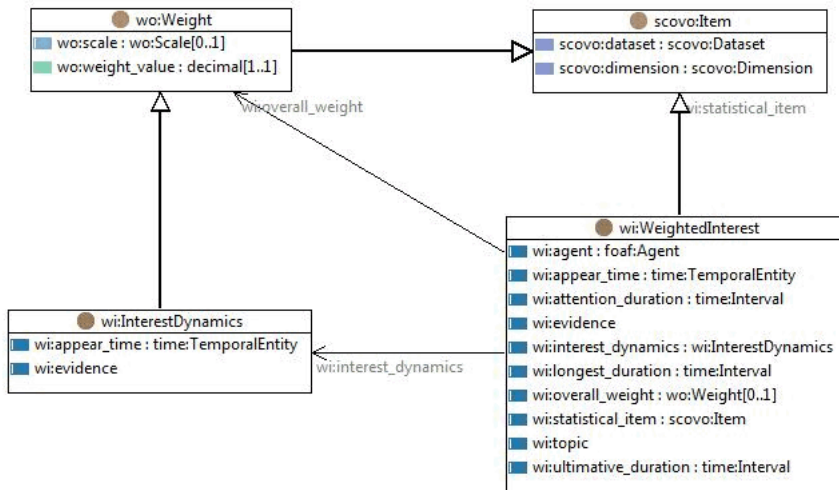
Table of Contents

The Weighted Interests Vocabulary at a glance

The *wi:WeightedInterest* concept as graph with relations:

The *wi:InterestDynamics* concept as graph with relations:

An a-z index of *Weighted Interests Vocabulary* terms, by class (categories or types), by property and by individual.

Classes: | InterestDynamics | WeightedInterest |

Properties: | agent | appear_time | attention_duration | evidence | interest_dynamics | longest_duration | not_interested_in | overall_weight | preference | statistical_item | topic | ultimative_duration |

Individuals: | ExplicitMining | ImplicitMining |

Examples

- Preferences Example
- Not-Interest-In Example
- Scientific Research Interests Example
- Music Preferences Example

Preferences Example

This example is orginally taken from the first draft of the Weighted Interest Vocabulary and was tranformed to be conform with the current version of the *Weighted Interests Vocabulary*.

RDF/Turtle representation of a preferences example with interest dynamics modelling created with the *Weighted Interests Vocabulary* (see also RDF and N3 for downloadable representations of this example):

```
@prefix foaf:  <http://xmlns.com/foaf/0.1/> .
@prefix wi:    <http://purl.org/ontology/wi/core#> .
@prefix wi:    <http://purl.org/ontology/wo/core#> .
@prefix days:  <http://ontologi.es/days#> .
@prefix tl:    <http://perl.org/NET/c4dm/timeline.owl#> .
@prefix xsd:   <http://www.w3.org/2001/XMLSchema#> .
@prefix ex:    <http://example.org/> .
@prefix event: <http://purl.org/NET/c4dm/event.owl#> .
@prefix geo:   <http://www.w3.org/2003/01/geo/wgs84_pos#> .

<http://swordfish.rdfweb.org/people/libby/rdfweb/webwho.xrdf#me>
    a foaf:Person ;
    foaf:name "Libby Miller" ;
    wi:preference [
       a wi:WeightedInterest ;
       wi:topic <http://www.bbc.co.uk/5live#service> ;
       wo:weight [
          a wo:Weight ;
          wo:weight_value 3.0 ;
          wo:scale ex:AScale
          ] ;
       wi:interest_dynamics ex:Working
       ] ;
    wi:preference [
       a wi:WeightedInterest ;
       wi:topic <http://www.bbc.co.uk/radio4#service> ;
       wi:overall_weight [
          a wo:Weight ;
          wo:weight_value 7.0 ;
          wo:scale ex:AScale
          ] ;
       wo:weight [
          a wo:Weight ;
          wo:weight_scale 5.0 ;
          wo:scale ex:AScale
          ] ;
       wi:interest_dynamics ex:Working
       ] .

ex:AScale a wo:Scale ;
   wo:min_weight 0.0 ;
   wo:max_weight 9.0 ;
   wo:step_size 1.0 .

ex:Working a wi:InterestDynamics ;
   wi:appear_time [
      a days:WeekdayInterval ;
      tl:at "08:00:00"^^xsd:time ;
      tl:end "19:00:00"^^xsd:time
      ] ;
   wo:weight_value 9.0 ;
   wo:scale ex:AScale ;
   event:place ex:MyWorkingPlace .

ex:MyWorkingPlace a geo:Point .
```

This example shows a part of a preference model of a person (here Libby Miller). It consists of two preferences, each is modeled as a *wi:WeightedInterest* instance, which are related to the person by using the property *wi:preference*. An interest itself consists here at least of a topic (*wi:topic*), a weight (*wo:weight*) and an interest dynamics description (*wi:interest_dynamics*) relation. Furthermore, in addition to the standard weight relation (*wo:weight*), which should reflect the current interest in a topic, the overall interest in a topic, can be related by using the property (*wi:overall_weight*) with a *wi:WeightedInterest* instance as subject.
The topics of the weights are both a *BBC* radio program. Every weight is modeled as a *wo:Weight* instance, which consists here of the weight value (*wo:weight_value*) and a link to a scale description (*wo:Scale*). A *wo:Scale* instance describes the range (*wo:min_weight* and *wo:max_weight*) for the groups of weights, which are linked to it, and furthermore, the step size (*wo:step_size*), which is possible in this range.
wi:WeightedInterest instances can have different interest dynamics (*wi:InterestDynamics*) relations. These are specific events (*event:Event*), which model temporal interest statistics. Besides the already known time period (*days:WeekdayInterval*), which is related by the property *wi:appear_time*, a temporal weight (related by *wo:weight_value*, because *wi:InterestDynamics* is a sub class of *wo:Weight*) can describe the temporal interest in a topic to a context, which is here additionally described by a spatial relation (*event:place*).
To sum up the example, the person Libby Miller prefers radio 4 over radio 5 when he is working at his working place (which is every weekday between 8am and 7pm).

Not-Interest-In Example

This example is orginally taken from the first draft of the Weighted Interest Vocabulary and was tranformed to be conform with the current version of the *Weighted Interests Vocabulary*.

RDF/Turtle representation of a not-interest-in example created with the *Weighted Interests Vocabulary* (see also RDF and N3 for downloadable representations of this example):

```
@prefix foaf: <http://xmlns.com/foaf/0.1/> .
@prefix wi:   <http://purl.org/ontology/wi/core#> .

<http://swordfish.rdfweb.org/people/libby/rdfweb/webwho.xrdf#me>
   a foaf:Person;
   foaf:name "Libby Miller";
   wi:not_interested_in <http://en.wikipedia.org/wiki/The_X_Factor_(UK)> .
```

This examples shows,

Scientific Research Interests Example

This example is orginally taken from the [E-foaf:interest Vocabulary Specification 0.2](#) and was tranformed to be conform with the current version of the *Weighted Interests Vocabulary*.

RDF/Turtle representation of a scientific research interests created with the *Weighted Interests Vocabulary* (see also [RDF](#) and [N3](#) for downloadable representations of this example):

```
@prefix xsd:     <http://www.w3.org/2001/XMLSchema#> .
@prefix foaf:    <http://xmlns.com/foaf/0.1/> .
@prefix tl:      <http://purl.org/NET/c4dm/timeline.owl#> .
@prefix dcterms: <http://purl.org/dc/terms/> .
@prefix wi:      <http://purl.org/ontology/wi/> .
@prefix wo:      <http://purl.org/ontology/wo/> .
@prefix ex:      <http://example.org/> .
@prefix time:    <http://www.w3.org/2006/time#> .

ex:ASpecificContext a wi:InterestDynamics ;
   dcterms:subject <http://dblp.uni-trier.de/rec/bibtex/conf/cikm/AlonsoGB09> ;
   wi:appear_time [
      a time:UTInstant ;
      time:inXSDDateTime "2009-11-15T05:30:00+08:00"^^xsd:dateTime
      ] .

<http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/b/Baeza=Yates:Ricardo_A=.html>
   a foaf:Person ;
   foaf:topic_interest <http://www.wici-lab.org/wici/wiki/index.php/Web> ;
   wi:preference ex:WebInterest ;
   foaf:name "Ricardo Baeza-Yates" .

ex:WebInterest a wi:WeightedInterest ;
   wi:topic <http://www.wici-lab.org/wici/wiki/index.php/Web> ;
   wi:overall_weight [
      a wo:Weight ;
      wo:weight_value 65.0 ;
      wo:scale ex:AScale ;
      dcterms:modified "2009-12-22T23:30:00+08:00"^^xsd:dateTime
      ] ;
   wo:interest_dynamics ex:ASpecificContext ;
   wi:ultimative_duration [
      a tl:UTInterval ;
      tl:duration "P10Y"^^xsd:duration ;
      dcterms:modified "2010-01-10T03:15:00+08:00"^^xsd:dateTime
      ] ;
   wi:longest_duration [
      a tl:UTInterval ;
      tl:duration "P9Y"^^xsd:duration ;
      dcterms:modified "2010-01-17T05:30:00+08:00"^^xsd:dateTime
      ] ;
   wo:weight [
      a wo:Weight ;
      wo:weight_value 7.81 ;
      wo:scale ex:AnotherScale ;
      dcterms:modified "2010-01-17T13:30:00+08:00"^^xsd:dateTime
      ] .

ex:AScale a wo:Scale ;
   wo:min_weight 0.0 ;
   wo:max_weight 100 ;
   wo:step_size 5.0 .

ex:AnotherScale a wo:Scale ;
   wo:min_weight 0.0 ;
   wo:max_weight 10.0 ;
   wo:step_size 0.01 .
```

This examples shows,

Music Preferences Example

RDF/Turtle representation of a music preferences example created with the *Weighted Interests Vocabulary* (see also [RDF](#) and [N3](#) for downloadable representations of this example):

```
@prefix foaf:    <http://xmlns.com/foaf/0.1/> .
@prefix wi:      <http://purl.org/ontology/wi/core#> .
@prefix wo:      <http://purl.org/ontology/wo/core#> .
@prefix days:    <http://ontologi.es/days#> .
@prefix tl:      <http://perl.org/NET/c4dm/timeline.owl#> .
@prefix xsd:     <http://www.w3.org/2001/XMLSchema#> .
@prefix ex:      <http://example.org/> .
@prefix event:   <http://purl.org/NET/c4dm/event.owl#> .
@prefix dcterms: <http://purl.org/dc/terms/> .

<http://foaf.me/zazi#me>
   a foaf:Person ;
   foaf:name "Bob Ferris" ;
   wi:preference [
      a wi:WeightedInterest ;
      wi:topic <http://dbtune.org/musicbrainz/resource/artist/20ff3303-4fe2-4a47-a1b6-291e26aa3438> ;
      wo:weight [
         a wo:Weight ;
         wo:weight_value 3.0 ;
         wo:scale ex:AScale
         ] ;
      wi:appear_time [
```

```
                        dc:title "working time" ;
                        a days:WeekdayInterval ;
                        tl:at "08:00:00"^^xsd:time ;
                        tl:end "19:00:00"^^xsd:time ;
                        dcterms:modified "2009-12-14T10:01:00+01:00"^^xsd:dateTime
                        ] ;
                    ] ;
            wi:preference [
                a wi:WeightedInterest ;
                wi:topic <http://dbtune.org/musicbrainz/resource/artist/470a4ced-1323-4c91-8fd5-0bb3fb4c932a> ;
                wo:weight [
                    a wo:Weight ;
                    wo:weight_value 7.0 ;
                    wo:scale ex:AScale ;
                    dcterms:modified "2010-06-18T09:34:00+01:00"^^xsd:dateTime
                    ] ;
                wi:overall_weight [
                    a wo:Weight ;
                    wo:weight_value 5.0 ;
                    wo:scale ex:AScale ;
                    dcterms:modified "2010-07-02T22:20:00+01:00"^^xsd:dateTime
                    ] ;
                wi:appear_time [
                    dc:title "party time" ;
                    a days:FridayInterval ;
                    tl:at "23:00:00"^^xsd:time ;
                    dcterms:modified "2010-03-21T18:40:00+01:00"^^xsd:dateTime
                    ] ;
                wi:interest_dynamics ex:TechnoParty ;
                wi:interest_dynamics ex:BigFan ;
                wi:ultimative_duration [
                    a tl:UTInterval ;
                    tl:duration "P13Y"^^xsd:duration ;
                    dcterms:modified "2010-08-14T17:25:00+01:00"^^xsd:dateTime
                    ] ;
                wi:longest_duration [
                    a tl:UTInterval ;
                    tl:duration "P5Y"^^xsd:duration ;
                    tl:at "2001-02-02T00:00:00+01:00"^^xsd:dateTime ;
                    tl:end "2005-10-21T00:00:00+01:00"^^xsd:dateTime ;
                    dcterms:modified "2010-08-14T17:25:00+01:00"^^xsd:dateTime
                    ] ;
            ] ;
            wi:not_interested_in <http://dbpedia.org/resource/Category:Schlager> ;
            wi:not_interested_in <http://dbpedia.org/resource/Category:German_folk_music> .

    ex:AScale a wo:Scale ;
        wo:min_weight 0.0 ;
        wo:max_weight 9.0 ;
        wo:step_size 1.0 .

    ex:TechnoParty a wi:InterestDynamics ;
        wi:appear_time [
            a tl:UTInterval ;
            tl:at "2010-04-03T23:30:00+01:00"^^xsd:dateTime ;
            tl:end "2010-04-04T05:30:00+01:00"^^xsd:dateTime
            ] ;
        wo:weight_value 9.0 ;
        wo:scale ex:AScale ;
        event:place <http://dbpedia.org/resource/Tresor> ;
        dcterms:subject <http://www.residentadvisor.net/event.aspx?151690> .

    ex:BigFan a wi:InterestDynamics ;
        wi:appear_time [
            a tl:UTInterval ;
            tl:at "2001-02-02T00:00:00+01:00"^^xsd:dateTime ;
            tl:end "2005-10-21T00:00:00+01:00"^^xsd:dateTime
            ] ;
        wo:weight_value 9.0 ;
        wo:scale ex:AScale .
```

Introduction: Weighted Interests Vocabulary Basics

What's the Weighted Interests Vocabulary for?

The *Weighted Interests Vocabulary*

Background

TODO

The Weighted Interests Vocabulary and Standards

TODO

TODO

The Weighted Interests Vocabulary Description

This specification serves as the *Weighted Interests Vocabulary* "namespace document". As such it describes the *Weighted Interests Vocabulary* and the terms (RDF classes and properties) that constitute it, so that Semantic Web applications can use those terms in a variety of RDF-compatible document formats and applications.

This document presents the *Weighted Interests Vocabulary* as a [Semantic Web](#) vocabulary or *Ontology*. The *Weighted Interests Vocabulary* is pretty simple, pragmatic and designed to allow simultaneous deployment and extension. The *Weighted Interests Vocabulary* is intended for widescale use, but its authors make no commitments regarding its suitability for any particular purpose.

Evolution and Extension of the Weighted Interests Vocabulary

The *Weighted Interests Vocabulary* is identified by the namespace URI `http://purl.org/ontology/wi/core#`. Revisions and extensions of the *Weighted Interests Vocabulary* are conducted through edits to this document, which by convention is accessible in the Web via the namespace URI. For practical and deployment reasons, note that **we do not update the namespace URI as the vocabulary matures**.

The evolution of the *Weighted Interests Vocabulary* is best considered in terms of the stability of individual vocabulary terms, rather than the specification as a whole. As terms stabilise in usage and documentation, they progress through the categories '**unstable**', '**testing**' and '**stable**'. Older terms are marked '**archaic**' which allows the possibility of older forms to become modern again.

The Weighted Interests Vocabulary cross-reference: Listing the Weighted Interests Vocabulary Classes, Properties and Individuals

The *Weighted Interests Vocabulary* introduces the following classes, properties and individuals. There is a link at the top of this document to the RDF/XML and RDF/N3 versions.

Classes: | [InterestDynamics](#) | [WeightedInterest](#) |

Properties: | [agent](#) | [appear_time](#) | [attention_duration](#) | [evidence](#) | [interest_dynamics](#) | [longest_duration](#) | [not_interested_in](#) | [overall_weight](#) | [preference](#) | [statistical_item](#) | [topic](#) | [ultimative_duration](#) |

Individuals: | [ExplicitMining](#) | [ImplicitMining](#) |

Classes, Properties and Individuals (full detail)

Classes

Class: wi:InterestDynamics

Interest Dynamics - An event concept for describing dynamics of interests, e.g. weight changes, periods of interest.

Status:	testing
Used with:	[interest_dynamics](#)
Sub class of	[wo:Weight](#)
OWL Class	
RDFS Class	

[[#](#)] [[back to top](#)]

Class: wi:WeightedInterest

Weighted Interest - A weighted interest object, which also can have interest dynamics etc.

Status:	unstable
Properties include:	[agent](#) [statistical_item](#) [interest_dynamics](#) [overall_weight](#) [topic](#) [attention_duration](#)
Used with:	[preference](#)
Sub class of	[scovo:Item](#)
OWL Class	
RDFS Class	

[[#](#)] [[back to top](#)]

Properties

Property: wi:agent

has agent - A link from a mined interest to the related person

Status:	testing
Domain:	[Weighted Interest](#)
Range:	[foaf:Agent](#)
Inverse property of	[has preference](#)
RDF Property	
Object Property	

Property: wi:appear_time

has appear time - The time when the interest appears in a certain kind of scenario.

Status:	testing
Domain:	wi:WeightedInterest or wi:InterestDynamics
Sub property of	event:time

RDF Property
Object Property

Property: wi:attention_duration

has attention duration - An interval of attention for an interest.

Status:	testing
Domain:	Weighted Interest
Range:	time:Interval
Sub property of	event:time
Has sub property	has longest duration ultimative duration

RDF Property
Object Property

Property: wi:interest_dynamics

has interest dynamics - To relate a weighted interest to its temporal dynamics.

Status:	testing
Domain:	Weighted_Interest
Range:	Interest Dynamics
Sub property of	event:sub_event

RDF Property
Object Property

Property: wi:longest_duration

has longest duration - The longest continuous interval of attention for an interest, e.g. for an interest, if it appears in the following years: 1990, 1991, 1995, 1996, 1997, 1998, 2001, then the longest duration is 4 years.

Status:	testing
Sub property of	has attention duration

RDF Property
Object Property

Property: wi:overall_weight

has overall weight - This weight reflects the overall interest in a topic and should be different from the actual weight of interest.

Status:	testing
Domain:	Weighted Interest
Sub property of	wo:weight

RDF Property
Object Property
Functional Property

Property: wi:statistical_item

has statistical item - A link from an interest to statistics about itself

Status:	testing
Domain:	Weighted Interest
Range:	scovo:Item

RDF Property

Object Property

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Property: wi:ultimative_duration

ultimative duration - The overall duration of attention for an interest, e.g. for an interest, if it appears in the following years: 1990, 1991, 1995, 1996, 1997, 1998, 2001, then the longest duration is 7 years.
Status: testing
Sub property of has attention duration

RDF Property
Object Property

[#] [back to top]

Property: wi:evidence

has evidence - A link between a context and evidence supporting the interpretation of preferences in a context
Status: unstable
Domain: wi:WeightedInterest or wi:InterestDynamics
Sub property of event:factor

RDF Property
Object Property

[#] [back to top]

Property: wi:not_interested_in

not interested in - A link between an agent and a topic of no interest to them
Status: unstable
Domain: foaf:Agent

RDF Property
Object Property

[#] [back to top]

Property: wi:preference

has preference - A link between an agent and a weighted interest
Status: unstable
Domain: foaf:Agent
Range: Weighted Interest
Has inverse property has agent

RDF Property
Object Property

[#] [back to top]

Property: wi:topic

has topic - A topic of the weighted interest
Status: unstable
Domain: Weighted Interest
Sub property of dcterms:subject

RDF Property
Object Property

[#] [back to top]

Individuals

Individual: wi:ExplicitMining

Explicit Mining - An explicitly mined user interest
Status: testing
Type: scovo:Dimension

[#] [back to top]

Individual: wi:ImplicitMining

Implicit Mining - An implicitly mined user interest
Status: testing
Type: scovo:Dimension

<div style="text-align:right">[#] [back to top]</div>

External Vocabulary References

The description of the terms in the *Weighted Interests Vocabulary* 'dictionary' make reference to classes and properties elsewhere. This section of the *Weighted Interests Vocabulary* specification provides a placeholder reference for any *Weighted Interests Vocabulary* mention of externally defined terms. For example, sometimes we might say that *Counter Ontology* property has a domain or range of an externally defined class, or that a *Weighted Interests Vocabulary* class is a sub-class of an external class, or 'disjoint with' such a class (ie. has no common members). Such claims help fix the intended meaning of *Weighted Interests Vocabulary* terms in relationship to other 'peer' vocabularies.
Currently, the *Weighted Interests Vocabulary* sub classes:

wo:Weight
A weight class to enable timestamped (etc.) weights.
scovo:Item
A statistical data item; is a kind of Event.

Status Vocabulary

Each term in the *Weighted Interests Vocabulary* is annotated with properties from the SemWeb Vocab Status Ontology

Note that this mechanism is itself somewhat experimental and evolvin. The definitions of 'stable', 'unstable', 'archaic' and 'testing' cannot be defined as global absolutes, but only in relationship to the practices, expectations and social structures around some vocabulary. For their use in the Weighted Interests Vocabulary, future versions of this specification could usefully offer more detail about what to expect from a term labelled 'stable'.

vs:term_status
The vs:term_status property indicates the status of a vocabulary term, one of 'stable','unstable','testing' or 'archaic'.

Acknowledgments

I would like to thank very much the creators of the different interest ontologies, where this multiple purpose interest ontology is based on. That means, Dan Brickley, Dave Reynolds, Libby Miller, Toby Inkster, Yi Zeng, Yan Wang, Danica Damljanovic, Zhisheng Huang, Alexandre Passant, Sheila Kinsella and John Breslin.

Recent Changes

```
===========================
Version 0.5 (September 2010)
===========================
 * REMOVED: wi:Weight - outsourced to the Weighting Ontology and opened the rdfs:domain to owl:Thing
 * REMOVED: wi:Scale - outsourced to the Weighting Ontology
 * REMOVED: wi:weight - outsourced to the Weighting Ontology
 * REMOVED: wi:scale - outsourced to the Weighting Ontology
 * REMOVED: wi:weight_value - outsourced to the Weighting Ontology
 * REMOVED: wi:min_weight - outsourced to the Weighting Ontology
 * REMOVED: wi:max_weight - outsourced to the Weighting Ontology
 * REMOVED: wi:step_size - outsourced to the Weighting Ontology
 * REMOVED: wi:temporal_weight - wi:InterestDynamics is now a sub class of wo:Weight, so weightings can now relate dir
           wo:weight_value
 * REMOVED: wi:context - wi:WeightedInterest is now a sub class of scovo:Item and hence also an event:Event, further e
           context associations can be done via ao:context and its sub properties
 * REMOVED: wi:temporal_context - wi:InterestDynamics is now a sub class of wo:Weight and hence also an event:Event, f
           environmental context associations can be done via ao:context and its sub properties
 * REMOVED: wi:Context - wi:WeightedInterest is now a sub class of scovo:Item and hence also an event:Event, further e
           context associations can be done via ao:context and its sub properties
 * REMOVED: wi:device - this property is now available in a more generic form in the Association Ontology (ao:device o
           for events)
 * REMOVED: wi:location - this property is now available in a more generic form in the Association Ontology (ao:locati
           for events)
 * REMOVED: wi:time_period - please use wi:appear_time instead
 * REMOVED: wi:ComplexInterest - wi:WeightedInterest is enough and can now also be used for interest dynamics descript
 * MODIFIED: wi:appear_time - removed rdfs:range of time:Interval to enable also time instants
 * MODIFIED: wi:evidence - as sub property of event:factor with a domain of wi:WeightedInterest or wi:InterestDynamics
 * MODIFIED: wi:appear_time - now with a domain of wi:WeightedInterest or wi:InterestDynamics

 =======================
 Version 0.4 (August 2010)
 =======================
 * MODIFIED: added rev:minRating as super property to wi:min_weight
 * MODIFIED: added rev:maxRating as super property to wi:max_weight
 * MODIFIED: reduced the domain of wi:scale to wi:Weight
 * ADDED: wi:agent - as inverse property of wi:preference - inspired by imo:person
 * ADDED: OWL property chain axiom on foaf:topic_interest - wi:topic and wi:preference - inspired by IMO (Interest Min
 * MODIFIED: wi:Weight as sub class of scovo:Item
 * MODIFIED: wi:Scale as sub class of scovo:Dimension
 * MODIFIED: wi:min_weight as sub property of scovo:min
 * MODIFIED: wi:max_weight as sub property of scovo:max
 * MODIFIED: wi:scale as sub property of scovo:dimension
 * ADDED: wi:statistical_item - link from an interest to statistics about itself - inspired by imo:statItem
 * ADDED: wi:ImplicitMining - inspired by imo:ImplicitMining
 * ADDED: wi:ExplicitMining - inspired by imo:ExplicitMining
```

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  * ADDED: wi:weight_value - to specify the range of wi:Weight as xsd:decimal


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  Version 0.3 (August 2010)
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  * ADDED: wi:InterestDynamics - an event concept for describing dynamics of interests, e.g. weight changes, periods of
  * ADDED: wi:interest_dynamics - to relate a complex interest to its temporal dynamics
  * ADDED: wi:attention_duration - as super property for wi:longest_duration and wi:ultimative_duration
  * ADDED: wi:longest_duration - inspired by efoaf:interest_longest_duration / efoaf:lasting_time_interval
  * ADDED: wi:ultimative_duration - inspired by efoaf:interest_cumulative_duration / appear_time_interval
  * ADDED: wi:appear_time - inspired by efoaf:interest_appear_time
  * ADDED: wi:temporal_weight - to express temporal weights of an interest
  * ADDED: wi:overall_weight - inspired by efoaf:cumulative_interest_value
  * ADDED: wi:Weight - to enable timestamped weights :\
  * MODIFIED: removed range restriction from wi:context
  * ADDED: wi:temporal_context - as sub property of wi:context and event:factor
  * MODIFIED: change range of wi:weight to wi:Weight


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  Version 0.2 (August 2010)
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  * REMOVED: wi:DocumentsAndConcepts
  * REMOVED: wi:TimeIntervalsAndInstants
  * MODIFIED: changed range of wi:timePeriod to time:TemporalEntity
  * MODIFIED: renamed wi:timePeriod to wi:time_period
  * MODFIED: removed super property foaf:interest from wi:timePeriod and wi:topic
  * MODIFIED: renamed wi:notInterestedIn to wi:not_interested_in
  * MODIFIED: renamed wi:hasContext to wi:context
  * MODIFIED: changed range of wi:device to owl:Thing
  * MODIFIED: changed range from wi:weight to xsd:decimal
  * MODIFIED: added owl:Thing as super class of wi:Context and wi:WeightedInterest
  * ADDED: wi:Scale - a concept for describing weighting scales
  * ADDED wi:max_weight - a maximum weight of a scale
  * ADDED: wi:min_weight - a minimum weight of a scale
  * ADDED: wi:step_size - a predefined step size for weight of a specific scale
  * MODIFIED: wi:scale - changed range to wi:Scale
  * MODIFIED: added dcterms:subject as super class of wi:topic
  * ADDED: wi:ComplexInterest as hook for dynamic interests
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