

## Use Case Lisa : Finding information about Lexical Entries in Cornetto

Lisa is from the US, but she moved to the Netherlands a few years ago. She has learned the Dutch language pretty well, but sometimes she reads or hears a word she doesn't know yet. Recently she heard the word *bloei* and she understood that it meant something like 'in bloom' or 'blossom', but she doesn't know how to use this word well in context. With Cornetto, she can look this word up and find out that the right way to use this word is to say: *in bloei (staan/zijn)* 'to be in bloom'. With Cornetto she can find other kinds of information as well, like plural forms or the grammatical gender of a word and multiword expressions.

### Step I

## Cornetto Demo

Simple Search   Advanced Search   Synset Visualisation   Help

Simple Search   Matching Lexical Entries

Word Form:

Use Wild-cards:  ?

Part of Speech: -- Any --

Items per Page: 20

## Cornetto Demo

Simple Search   Advanced Search   Synset Visualisation   Help

Simple Search   Matching Lexical Entries

### Matching Lexical Entries for 'bloei'

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ID	Written Form	Semantics	PoS	Examples	Pragmatics	Syntax
bloei-n-1	bloei	het bloeien	noun	in bloei [staan/zijn]	botany	
bloei-n-2	bloei	zeer gunstige toestand	noun	economische bloei (1 more)		
bloei-mwe-40381	in de bloei van [zijn] leven zijn	in de jaren dat hij gezond en krachtig is	-			

## Step II

[Simple Search](#) [Advanced Search](#) [Synset Visualisation](#) [Help](#)



[Simple Search](#) [Matching Lexical Entries](#) [Selected LE](#)

### Details of Selected Lexical Entry (bloei-n-1)

General		Word Forms			Sense	
Lemma:	<b>bloei</b>	Form	Art.	Number	Definition:	<b>het bloeien</b>
Part of Speech:	<a href="#">noun</a>	<b>bloei</b>	<b>de</b>	<a href="#">singular</a>		
Morpho-syntax:	<a href="#">m</a>					

Semantics		Syntax		Relations	
Countability:	<a href="#">mass</a>	(No syntactics)		(No sense relations)	
Reference:	<a href="#">common</a>			(No form relations)	
Semantic Type:	<a href="#">dynamic</a>				

Examples	
Type/Phrase	Canonical Form
<a href="#">grammaticalCollocation / pp</a>	<b>in bloei [staan/zijn]</b>

Hierarchy	
  <a href="#">bedoening-n-2</a> <a href="#">boel-n-2</a> <a href="#">situatie-n-1</a> <a href="#">toestand-n-1</a>	
  <b><a href="#">bloei-n-1</a></b> <a href="#">efflorescentie-n-1</a>	
  <a href="#">herfstbloei-n-1</a>	
  <a href="#">nabloei-n-1</a>	

## Use Case Paul: Finding word relations in Cornetto

Paul is a student Philosophy and he is writing his bachelor thesis about Plato's Allegory of the Cave. He finds it important that his thesis does not only meet the requirements regarding the content, but that it is also pleasant to read. At some point, he notices that he has used the word *symboliseren* ('to symbolize') quite a few times in just one paragraph. He wants to use another word instead of *symboliseren* for the sake of the variety of his language use, but for some reason he can't think of any. With Cornetto, he could search for synonyms of *symboliseren* in the Cornetto Synset part and find out that other possible words are *verzinnebeelden* or *staan*. The first one is clear, but he doesn't directly understand the second one. How can *staan* be used in the meaning of *symboliseren*? To find this out, he could click on *staan* and find more information about this word-meaning combination in the Cornetto LU part (just like Lisa – User Scenario I). From the combinatorial information that is stored for this word, he understands that *staan* in this meaning of 'symbolizing' needs to be used together with *voor* (*voor iets staan*, 'to stand for something').

### Step I



Simple Search | Advanced Search | Synset Visualisation | Help

Simple Search | Matching Lexical Entries

#### Matching Lexical Entries for 'symboliseren'

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ID	Written Form	Semantics	PoS	Examples	Pragmatics	Syntax
symboliseren-v-1	symboliseren	symbool zijn van	verb	de kracht van de werkende klasse symboliseren		

### Step II



Simple Search | Advanced Search | Synset Visualisation | Help

Simple Search | Matching Lexical Entries | Selected LE

#### Details of Selected Lexical Entry (symboliseren-v-1)

General		Word Forms		Sense	
Lemma:	symboliseren	Form	Tense	Definition:	symbool zijn van
Part of Speech:	verb				
Mode:	infinitive				
Morpho-syntax:	aux: hebben				

Semantics		Syntax		Relations	
Type	Feature Set	Valency:	dj	(No sense relations)	
state		Transitivity:	transitive	(No form relations)	
	cognit2	Complement	Preposition		
		(No complementations)			
		Const.	Func.	Prep.	Compl.
		np	directObject		

Examples		
Type/Phrase	Canonical Form	Textual Form
freeCombination / vp	de kracht van de werkende klasse symboliseren	de hamer en de sikkel symboliseren de kracht van de werkende klasse

#### Hierarchy

- weergeven-v-2
  - beduiden-v-2 behelzen-v-2 betekenen-v-1 inhouden-v-1 omvatten-v-3 zeggen-v-2
  - weergeven-v-2
    - representeren-v-2 voorstellen-v-3
    - staan-v-9 symboliseren-v-1 verzinnebeelden-v-1

## Step III

Simple Search   Advanced Search   Synset Visualisation   Help

Simple Search   Matching Lexical Entries   Selected LE   Related LE or Synset

### Details of Related Lexical Entry (staan-v-9)

General		Word Forms		Sense	
Lemma:	<b>staan</b>	Form	Tense	Definition:	<b>symboliseren</b>
Part of Speech:	<b>verb</b>	<b>stond</b>	<b>pastTense</b>		
Mode:	<b>infinitive</b>	<b>gestaan</b>	<b>pastParticiple</b>		
Morpho-syntax:	<b>aux: hebben</b>				

Semantics		Syntax		Relations	
Type	Feature Set	Valency:	<b>di</b>	(No sense relations)	
<b>state</b>		Transitivity:	<b>intransitive</b>	(No form relations)	
	<b>state2</b>	Complement	Preposition		
		(No complementations)			
		Const.	Func.	Prep.	Compl.
		<b>nil</b>	<b>nil</b>		

Examples		
Type/Phrase	Canonical Form	Textual Form
<a href="#">grammaticalCollocation / sentence</a>	<b>voor iets staan</b>	<b>dat hart staat voor de liefde</b>

Hierarchy	
 <a href="#">weergeven-v-2</a>	
 <a href="#">beduiden-v-2</a> <a href="#">behelzen-v-2</a> <a href="#">betekenen-v-1</a> <a href="#">inhouden-v-1</a> <a href="#">omvatten-v-3</a> <a href="#">zeggen-v-2</a>	
 <a href="#">weergeven-v-2</a>	
 <a href="#">representeren-v-2</a> <a href="#">voorstellen-v-3</a>	
 <a href="#">staan-v-9</a> <a href="#">symboliseren-v-1</a> <a href="#">verzinnebeelden-v-1</a>	

## User Case Chantal: Finding LU's or synsets through the stored information

Chantal is doing explorative research on the usability of domain information for Word Sense Disambiguation in Dutch (that is, automatically assigning the right meaning to a word in context). The main idea is that if it's clear that a text (or discourse) belongs to a certain domain, like ECONOMY or BIOLOGY, the polysemous words that need to be disambiguated are most likely to have the meaning that belongs to the same domain (instead of a meaning with a domain that is different from the domain of the text/discourse). For example, in a text about sports, the word *bal* ('ball') is more likely to have the meaning of 'football' than 'testicle'. To test this idea, she needs a selection of words that have meanings with a clear domain. In Cornetto the words are labelled with a domain, so she could easily search for some words which are labelled with the investigated domains if this would be integrated in the user interface.

### Step I

The screenshot displays the 'Cornetto Demo' web application interface. At the top, there is a navigation bar with tabs for 'Simple Search', 'Advanced Search', 'Synset Visualisation', and 'Help'. The 'Advanced Search' tab is currently selected. Below the navigation bar, there is a search area with a dropdown menu set to '20' items per page, a 'Clear' button, and a 'Search' button. The main content area is divided into three columns of filter options, each with a radio button and a label. The first column includes 'Word Forms', 'Lemma', 'Related Forms', 'Morphology', 'Morpho-syntax', and 'Polarity'. The second column includes 'Syntax', 'Syntactic Subcategorisation Frame', and 'Pragmatics'. The 'Pragmatics' section is expanded, showing several sub-categories with their own dropdown menus: 'Chronology' (options: -- Any --, Neologism, Oldfashioned), 'Connotation' (options: -- Any --, Euphemistic, Jocular, Offensive, Pejorative), 'Domain' (a long list of domains including Building\_industry, Chemistry, Cinema, Commerce, Computer\_science, Cycling, Dance, Diplomacy, Ecology, Economy, Electronics\_electricity, Engineering, Fashion, Fishing), 'Geography' (options: -- Any --, Belg, Dialect), and 'Register' (options: -- Any --, Formal, Informal, Slang, Vulgar). The third column includes 'Semantics Adjective', 'Semantics Verb', 'Examples Canonical', 'Examples Textual', 'Examples Semantics', 'Examples Syntax', and 'Sense Relations'.

## Results



Simple Search   **Advanced Search**   Synset Visualisation   Help

Advanced Search   **Matching Lexical Entries**

### Matching Lexical Entries (See previous tab for selected criteria)

[Download Matches as LMF-XML](#) (Max. 500)

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ID	Written Form	Semantics	PoS	Examples	Pragmatics	Syntax
bedrijfsmatig-a-1	bedrijfsmatig	mbt. het bedrijf	adjective	een bedrijfsmatige aanpak/opzet (1 more)	economy	
conjunctureel-a-1	conjunctureel	de conjunctuur betreffend	adjective	conjuncturele schommelingen/ontwikkelingen	economy	
conjunctuurgevoelig-a-1	conjunctuurgevoelig	gevoelig voor conjunctuurschommelingen	adjective	een conjunctuurgevoelige branche/economie/industrie	economy	
economisch-a-1	economisch	mbt. de economie	adjective	het economische beleid (4 more)	economy	
inflatoir-a-1	inflatoir	leidend tot inflatie	adjective		economy	
kostenbesparend-a-1	kostenbesparend	wat kosten bespaart	adjective	kostenbesparende maatregelen (1 more)	economy	
kostendekkend-a-1	kostendekkend	wat de kosten dekt	adjective	kostendekkende tarieven/prijzen (2 more)	economy	
kostenverhogend-a-1	kostenverhogend	tot hogere kosten leidend	adjective	een kostenverhogend effect (1 more)	economy	
kostenverlagend-a-1	kostenverlagend	tot lagere kosten leidend	adjective	kostenverlagende maatregelen (1 more)	economy	
macro-economisch-a-1	macro-economisch	mbt. macro-economie	adjective	een stabiel macro-economisch beleid	economy	
micro-economisch-a-1	micro-economisch	mbt. micro-economie	adjective		economy	
protectionistisch-a-1	protectionistisch	van protectionisme	adjective	protectionistische maatregelen	economy	
sociaal-economisch-a-1	sociaal-economisch	maatschappelijk-economisch	adjective	de sociaal-economische politiek/situatie (4 more)	economy	
winstgevend-a-1	winstgevend	lucratief	adjective	een winstgevend(e) bedrijf/zaak /onderneming	economy	
B-weg-n-1	B-weg	klein weggetje	noun	een B-weg nemen	building_industry, economy	
BNP-n-1	BNP	Bruto Nationaal Product	noun	het BNP per hoofd van de bevolking	economy	
BTW-n-1	BTW	Belasting op de Toegevoegde Waarde	noun	exclusief/inclusief BTW (4 more)	economy	
BTW-tarief-n-1	BTW-tarief	hoogte v.d. BTW	noun	een laag/gewoon/hoog BTW-tarief (1 more)	economy	
BV-n-1	BV	Besloten Vennootschap	noun	een BV/BV'tje oprichten	economy	
BVBA-n-1	BVBA	type vennootschap	noun		belgeconomy	