The Central Word Register of the Danish Language

Thomas Widmann tw@dsn.dk The Danish Language Council (Dansk Sprognævn)

eLex 2023

28th June 2023

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Problems

Lexicographic and computational linguistic resources often lack compatibility or have challenging licences, making it difficult to reuse them.

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Introduction

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Lexicographic and computational linguistic resources often lack compatibility or have challenging licences, making it difficult to reuse them.

The problem is more pronounced for smaller languages.

In the context of Danish, many electronic resources exist but they lack a unified approach, common identifiers and reasonable licensing terms, leading to difficulties in language technology development.

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We assign unique identification numbers to all lemmas and word forms in Danish.

The basic register (COR₁, also known as COR-K), launched in September 2022, is accessible at ordregister.dk.

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Structure and Components of the COR

The Orthographical Foundation: Retskrivningsordbogen

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Key differences between the two:

 COR₁ is designed for computer programs, while Retskrivningsordbogen is designed for humans.

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- **6** *Retskrivningsordbogen* has more and longer glosses than the COR₁.

Unique Identification Numbers

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The lemma indices range from 0 to 99,999, divided by word class for practicality.

Unique Identification Numbers: an Example

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COR.97230.110.01	donut	<pre>sb.fk.sg.ubest</pre>	donut	1
COR.97230.110.02	donut	<pre>sb.fk.sg.ubest</pre>	doughnut	1
COR.97230.111.01	donut	<pre>sb.fk.sg.best</pre>	donutten	1
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The grammatical abbrivation exhibits a one-to-one correspondence with the grammatical (three-digit) code.

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COR.97230.111.02	donut	<pre>sb.fk.sg.best</pre>	doughnutten	1
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COR.97230.110.01	donut	<pre>sb.fk.sg.ubest</pre>	donut	1

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The final column displays 1 if the form is part of the official norm, 0 if auto-generated.

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Structure and Components of the COR

Unique Identification Numbers: Other Resources

Other COR resources should adhere to a similar syntax:

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3 Any required subdivisions, specific to each resource.

Details for subdivisions must be provided on ordregister.dk.

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Relations

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Relations establish connections between lemmas and word forms.

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Relations establish connections between lemmas and word forms.

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Various types of relations can be defined, each resource can define its own. e.g.:

Abbreviation	Definition
fus	fusion of two or more COR indexes
rep	replaced by one or more COR indexes
spl	split into two or more COR indexes
sms	compound of two COR indexes
hyr	hypernym for two or more COR indexes
hyp	hyponym for another COR index
rim	rhyme (for rhyming dictionaries)

Structure and Components of the COR

The COR Resource Landscape

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Each resource is allocated a series of unique ID numbers. These should be used in combination with existing ones in other resources on the same or lower levels.

New numbers should primarily be used for non-existing lemmas and those that do not correspond one-to-one with an existing entry.

The Society for Danish Language and Literature (DSL, Det Danske Sprog- og Litteraturselskab) and the Centre for Language Technology (CST, Center for Sprogteknologi, University of Copenhagen) are currently working on a semantic extension, COR-S.

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It will be made available in the usual place, ordregister.dk.

Accessing and utilising the COR COR Linkers

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It uses modules can be swapped freely and there is potential for future developments, like an AI-based module.

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This approach greatly simplifies the implementation of RO^{hist}, easing the process of searching for a lemma across dictionaries.

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The COR can be accessed in two ways:

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Here is an example of how to use the API with Python to lookup a lemma given an ID number:

```
url = "https://ordregister.dk/id/COR." + str(id) + ".json"
data = json.loads(urlopen(url).read())
word = data['lemma']
```

Accessing and utilising the COR

Crowdsourcing

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We hope many will release COR-linked corpora and lexical resources, enhancing the overall utility of COR.

Future Prospects and Conclusion

A semantic component currently under development will enrich the database, allowing for sophisticated linguistic analyses and applications.

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New lexical resources, tools and applications will hopefully enhance the COR's utility and promote its adoption in language research and technology.

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- Centre for Language Technology (CST, Center for Sprogteknologi, University of Copenhagen)
- The Digitalisation Agency (Digitaliseringsstyrelsen)
- My colleagues at the Danish Language Council (Dansk Sprognævn)

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Any questions?

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