A North Sami translator's mailing list seen as a key to minority language lexicography

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- What is status quo for the North Sami modern vocabulary?
 - ▶ What concepts need established North Sami equivalents?
 - How are these concepts distributed over different text domains?

Introduction

- What is status quo for the North Sami modern vocabulary?
 - ▶ What concepts need established North Sami equivalents?
 - How are these concepts distributed over different text domains?
- To what extent con existing translation tools answer these needs?
 - Are the concepts found in dictionaries, term banks and corpora?
 - Do they get an adequate treatment?

The Sami language area



- 1. South Sami
- · 2. Ume Sami
- · 3. Pite Sami
- · 4. Lule Sami
 - North Sami
- Skolt Sami
- 7. Inari Sami
- 8. Kildin Sami
- 9. Ter Sami

Darkened area represents municipalities that recognize Sami as an official language.

Figure: The Sami language area – all together approx. 30,000 speakers

North Sami literacy

Milestones for the North Sami literary language

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 - Written language since the 18th century
 - Phonemic orthography 1832, New Testament 1840, Bible 1895

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 - Scientific work, especially in Finland
 - ► Common North Sami orthography for Norway & Sweden 1948, in little use due to the the prevailing language policy

Background

└ North Sami literacy

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 - Scientific work, especially in Finland
 - Common North Sami orthography for Norway & Sweden 1948, in little use due to the the prevailing language policy
- ► A new language policy during the last 3 decades
 - New, unified orthography for North Sami (including Finland) from 1979
 - ▶ North Sami introduced in most areas of modern society

North Sami in the school system

- ► Taught in the primary school
 - ▶ approx. 1000 pupils a year have North Sami as their first language (Slaastad 2012).

North Sami literacy

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 - ► School subjects lacking teaching material: social sciences, North Sami, natural sciences, religion and mathematics

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- Not all school subjects have access to teaching material in North Sami.
 - School subjects lacking teaching material: social sciences,
 North Sami, natural sciences, religion and mathematics
- Pupils in higher secondary school:
 - ▶ In the core areas, 96% (Kautokeino) and 76% (Karasjok) of the pupils at higher secondary school had North Sami as first language or higher-level second language

North Sami literacy

North Sami media

- ► Radio / TV
 - NRK Sápmi radio five hours a day,
 - ▶ and a local radio station in Kautokeino.
 - NRK Sápmi 15 min TV news daily (with dubbing rather than subtitles)
- Ávvir, a daily newspaper
- Several quarterly magazines

The quadrolingual central government

- http://ráđđehus.no
 (http://www.regjeringen.no/se.html?id=4)
- http://gonagasviessu.no

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— Background

└ North Sami literacy



Background

The giella list and the material under investigation

The giella list

- https://list.uit.no/sympa/info/giella
 - ▶ approx. 100 members
 - Translators and philologists from Norway, Finland and Sweden
- Issues related to North Sami translation
 - ► The prototypical question is *What is X in North Sami?*

A North Sami translator's mailing list seen as a key to minority language lexicography \sqcup Background

The giella list and the material under investigation

Our material

- Giella list discussions
- March 2011 to February 2012
- ► Norwegian words (N=313)

Procedure

- 1. Check coverage and treatment of the candidate words in these sources:
 - largest Norwegian-North Sami dictionary (NSO, Kåven et al. 2000)
 - normative Sami Parliament term base (Risten, http://risten.no)
 - ▶ Tromsø Norwegian-North Sami corpus (TC, http://giellatekno.uit.no/text.en.html)
- 2. See which text domains the words belong to
- 3. Evaluate the suggestions on the Giella list

Coverage

Coverage

The coverage of the material in three sources: NSO, Risten and TC, in absolute values and in percentage of total for each category (N)

Table: Coverage in dictionary, termbank and corpus

Words	NSO		Risten		TC		NSO / Risten		All	
All (N=313)	101	32%	62	20%	167	53%	128	41%	204	65%
Compounds only (n=219)	51	23%	28	13%	89	41%	70	32%	120	55%
Simplex only (n=94)	50	53%	34	36%	78	83%	58	62%	84	89%

Coverage

Common words not in dictionary

- 212 of 313 words were not found in NSO
 - ▶ 27 of these words were among the 10000 most common words in Norwegian (source: NoWaC corpus).
 - bane n. 'field', streng a. 'strict', tilbakemelding 'feedback', bygg 'building', innspill 'suggestion', henvendelse 'inquiry', satsing 'prioritizing', nestleder 'vice president', bærbar 'portable', høydepunkt 'climax'.

Analysis

Lext domains

The text domains

Table: The material distributed according to text domains

Admin	Education	Health	Sports	Other	General
82	70	34	27	54	46
26%	22%	11%	9%	21%	18%
valgportal	lærestoff	stivkrampe	midtbane	musling	innspill
'election	'syllabus'	'tetanus'	'center field'	'molluscs'	'suggestion'
website'					

LText domains

The text domains

- ► The domains discussed on the list reflect the priorities reported by translators:
 - Administrative texts for official bodies
 - School textbooks and scientific text
 - Bilingual signs on hospitals and health information aimed at the public

Analysis

Lext domains

The text domains

- The domains discussed on the list reflect the priorities reported by translators:
 - Administrative texts for official bodies
 - School textbooks and scientific text
 - Bilingual signs on hospitals and health information aimed at the public
- Other parts of modern vocabulary are not subject to vocabulary planning to the same extent
- ... and the result is lexical vacillation within the norm

The shopping mall effect

- kaffetrakter (drip coffeemaker)
- How come we know this term in Norwegian?
 - ▶ When we buy them, the store refers to e.g.
 - ► Bosch kaffetrakter TKA1411V
 - Drip coffeemakers seldom occur in texts

— Analysis

└ Text domains

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 - ... or invent private neologisms, possibly varying from family to family

— Analysis

└ Text domains

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- ▶ There is no common arena to learn the term in North Sami
 - People either use the Norwegian term
 - ... or invent private neologisms, possibly varying from family to family
- Written North Sami avoids such direct loans, and is thus in need of a generally acceptet term

List discussions

List discussions

Example: A spreadsheet term for rad 'row'

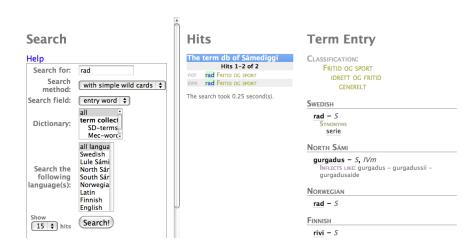
- > Hei,
- > Movt dii dáid lávebehtet gohčodit:
- >
- > Regneark lean gohčodan rehkenastinárkan
- > Arbeidsbok lean dál bidjan vuos bargogirjin, muhto gávdno go eará
- > sátni?
- > Celle Lean matematihkkagirjái aiddo bidjan "latnja"
- > Rad
- > Kolonne Lean matematihkkagirjjis aiddo bidjan "ráidu" (doppe in dárbbahan "rad" jorgalit...)
- > Formel evttohan: hápmu
- > Fane evttohan: leavga
- > Funksjon : evttohan doaibma

The dictionaries cannot help

- ► NSO:
 - rad s. gurgadus, -ss-:s, ráidu, -idd- (rekke, linje, kolonne, kjede, serie)

List discussions

... neither can *risten.no*



... nor our parallel corpus TC

- rad: No hits
- kolonne: 5 hits
 - kolonne ruktáráidu
 - Forskriften §§ 36 , 39 : Opplysninger om hvordan velgeren kan endre rekkefølgen av kandidatene , samt en kolonne med ruter til endring av rekkefølgen , skal være trykket på stemmesedlene
 - Láhkaásahusa §§ 36, 39 Dieðut das mo jienasteaddji sáhttá nuppástuhttit eavttohasaid vuoruid, ja vel ruktáráidu vuoruid nuppástuhttima várás, galget leat prentejuvvon jienastanlihpuide.
 - kolonne kolonna
 - ► Endringene framkommer under hvert kapittel i egen kolonne :
 - ▶ Rievdadusat bohtet ovdan sierra kolonnas kapihttaliid buohta :

List discussions

... but the giella list has suggestions

```
Dát leamaS anus: Cuolda ja gurgadas.
Beahkká
Quoting Else Turi <else.turi@nrk.no>:
 Evttohus:
 Ceakkoráidu (kolonne) (vrd. Gávttis leat dilit ja ceakkodilit)
 Ja
 Ráidu (rad)
 Else
```

... but the giella list has suggestions

List discussions

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Dát leamaS anus: Cuolda ja gurgadas.
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 Ja
 Ráidu (rad)
 F1se
```

(unfortunately it has more than one)

List suggestions to the queries

- ▶ 158 of 185 words not found in NSO or Risten got list suggestions
- Clear answers:
 - kontaktinformasjon 'contact information': oktavuođadieđut
- Different suggestions:
 - elveforbygning 'river wall': johkagáddeduvdda, mielleduvdda, miellefierrancaggi > johkaduvdda

List acceptance

List discussions

- Previously suggested equivalents not accepted by linguistic experts on the list:
 - bekymringsmelding 'note of concern': fuolastusdiehtu > fuolastuvvandieđáhus
 - ▶ kaffetrakter 'drip coffeemaker': gáfesilon > gáfesillehas

List discussions

The role of the giella list

- ► Fill the gap between the dictionaries and the reality
- ► Get confirmation from other North Sami speakers
- ▶ Improve the quality of the resulting terminology by ensuring that it was morphologically well formed.

- ► The *questions* to the giella list reveal lacunas in the North Sami vocabulary
- ► The *answers* picture a lack of consensus even for core parts of the vocabulary

- ► The *questions* to the giella list reveal lacunas in the North Sami vocabulary
- ► The answers picture a lack of consensus even for core parts of the vocabulary
- but the discussion also shows that minority language experts are able to build such a consensus in an efficient way

- ▶ We see the giella list as an indicator of the state of the art
- Central parts of the vocabulary is missing from key lexicographical resources, especially
 - everyday language not found in texts
 - new concepts
 - concepts linked to the modern society
- ► The most important text domains for professional translators are administrative texts, education and health, in that order

- ► Norwegian Sami lexicography must take the Norwegian vocabulary into account to a greater extent than before
- Norwegian Sami dictionaries must take Norwegian as a starting point and ensure that the basic vocabulary is covered

A North Sami translator's mailing list seen as a key to minority language lexicography \sqcup Conclusion

Thanks to our colleagues at Giellatekno for fruitful discussions

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Thank you for listening.
Any questions?