### Corpus Tools: Annotation, tools

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### Table of Contents

Corpus annotation

2 Tools overview

Annotation allows us to search efficiently

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  - Segment-level annotation

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- Metadata:
  - Source
  - Name of the text (?)
  - Author
  - Date
  - Genre / Type / Style

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  - Words
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  - Words
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  - Paragraphs
  - Verses
  - Discourse elements
  - Questions
  - . . .

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  - Part of speech
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- Annotation of a relation between two segments
  - Dependency syntax
  - Anaphora / coreference relations
  - Discourse relations (e.g. RST)

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- Example: coordination and dependency syntactic annotation
  - What should be a head?
  - What is a parent of a node?
- There always should be a thorough manual on how to annotate
- Especially, if this is a group effort



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- An important aspect: where to store
  - In-place annotation: keeping annotations with a text
  - Stand-off anotation: keeping annotations in a different place with offset and length of a segment

## Annotation Examples: in-place

 Morphological annotation in LOB Corpus: hospitality\_NN is\_BEZ an\_AT excellent\_JJ virtue\_NN ,\_, but\_CC

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- Morphological annotation in National Russian Corpus:

```
Я{я=S,ед,од=им}
сидел{сидеть=V,несов=изъяв,прош,ед,муж} на{на=PR}
барском{барский=A=ед,сред,пр}
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   сиденье{сиденьe=S,сред,неод=ед,пр}
- Syntactic annotation + morphology
   [S[NP Claudia\_NP1 NP] [VP sat\_VVD [PP on\_II [NP a\_AT1 stool\_NN1 NP] PP] VP] S]



## Annotation Examples: stand-off

#### Coreference annotation in RuCor corpus:

doc id	variant	group id	chain id	link	shift	length	content	tk shifts
1	1	407840	1070	0	9	5	своих	9
1	1	407839	1070	407840	47	1	я	47
1	1	407842	1069	0	69	13	одинокую дачу	69,78
1	1	407841	1069	407842	118	9	этой даче	118,123
1	1	407843	1069	407841	166	3	она	166
1	1	407846	1067	0	184	15	высоким забором	184,192
1	1	407844	1068	0	203	15	низкой калиткой	203,216,223
1	1	407845	1068	407844	233	7	которая	233
1	1	407847	1067	407846	316	7	забором	316

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  - Harder to see the annotation as a whole (without a tool)

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- Those are only recommendations, in reality some of them are often violated



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- Standalone
  - + easy to set up
  - harder to organize shared work
  - + can be harder to share