

# How to present NLP topics to children

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# NLP for kids

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In 2014, Masaryk University started university courses for kids (9–14 years).



For people in NLPC, it became a big challenge.

# Presenting NLP to the public

Very different audience but similar observations ...

- nobody ever heard about NLP or computational linguistics
- people realize that they use many NLP tools daily
- we can present any NLP topic but we have to communicate one main message
- we have to have answers to off-topic questions (orthography, Internet language, AI ...)
- we have a lot of software and very few physical objects to show

# Presenting NLP to kids: specifics

- we can present NLP to kids who can read easily (8 years and older)
- (inter)action, questions
- physical activity is welcome
- (some) kids are competitive

# Predictive Writing Presentation

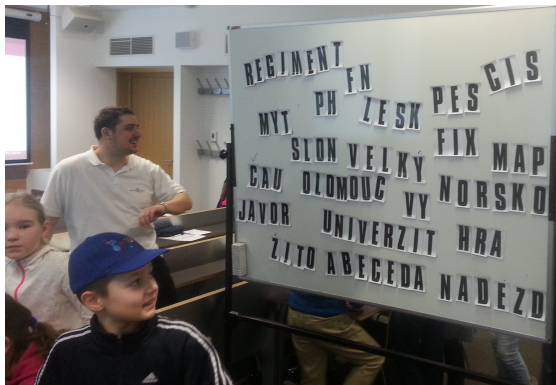
main message: “predictive writing in your phone is based on frequencies of words”

The image shows a predictive writing interface. On the left, a text input field contains the text "Kde domov" followed by a cursor. Below the input field, a vertical list of suggestions is displayed in blue boxes: "můj", "muj", "důchodců", "noviny", "mládeže", and "seniorů". On the right, a green box displays the KSPC score "0.50". Below this, a table shows the text length and character count.

délka textu	počet písmen a mezer
10	5

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# Presenting NLP to Kids: Observations



- kids are used to sit and hear and also to ask

# Presenting NLP to Kids: Observations



- kids do not have long term experience (they never have keypad cell phones)

# Presenting NLP to Kids: Observations



- some kids are bilingual without knowing it

# Presenting NLP to Kids: Observations



- kids happily destroy your software (increased web server load, unusual inputs etc.)

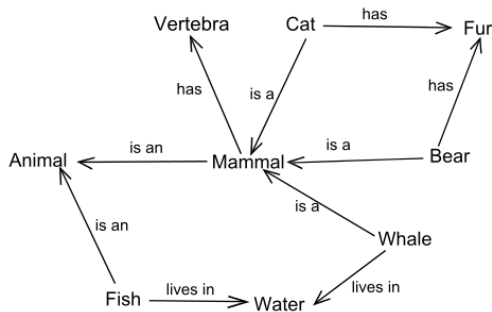
# Presenting NLP to Kids: Observations



- not all software demos are suitable for kids (ASR does not work on children's voices)

# Semantic Networks Presentation

main message: computer programs store word meanings in *connections* between the words



- how to explain word meanings to computer programs?

## RASLAN, 03 Dec 2016



# Semantic Networks Presentation

main message: computer programs store word meanings in *connections* between the words



- practical use: expansion of search queries with synonyms and hypernyms in order to improve search results, e.g. *bat*

# Semantic Networks Presentation

main message: computer programs store word meanings in *connections* between the words

- software demo: WordNet and Prolog

# Recommendations for NLP Presentations

- 1 choose any NLP topic but not very broad one, do not assume anybody knows the topic
- 2 simplify the terminology and be consistent (presentation, speaking, software demos)
- 3 explain words that mean something else in your field (e.g. dictionary)
- 4 test the presentation
- 5 prepare an easy-to-use demo
- 6 offer physical activity, prepare some physical object
- 7 provide printed material
- 8 offer bonus material
- 9 let one main message emerge from the presentation
- 10 be prepared for off-topic questions

# Future Work



Invent a name for the new demo