

Computational Approaches to Creative Language: Preliminaries, Overview

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Sommersemester 2010

27.04.2010

Preliminaries

Course offered as:

- Hauptseminar (B.Sc.): 6. Semester
- Seminar (M.Sc.): Computational Linguistics, Language Technology

Scheine/Credits:

- Hauptseminar/Seminar (MSc): class presentation (30-40 minutes), term paper (about 20 pages)
⇒ 7 credit points (4 for presentation, 3 for term paper)
- optional oral exam if wanted (10-30 minutes)
- “participation in seminar” (reading, discussions, exercises etc.)

Preparation

- optionally: preparatory meeting to discuss open questions and presentation draft

Evaluation Criteria

Content

- main aspects of the paper(s) covered
- good explanations of content (examples, graphics)
- discussion of advantages/disadvantages of presented method
- use of additional (printed) references (optionally)

Form

- slides contain references
- slides are well-structured
- the topic was well-presented (interaction with audience etc.)
- the presentation is not too short
- the presentation is not (much) too long

Writing term papers

- answer a concrete research question (or a set of related questions)
- show evidence of independent thinking and reasoning
- independent bibliographic work
- meet academic standards (proper citations/references, well-structured, well-written etc.)

Don't plagiarise!

- can include some practical work but doesn't have to
- around 100 hours of work (2-3 weeks full-time)
- 15-20 pages long
- 10-15 references

Please discuss topic with me beforehand!

Course Overview

Schedule

Date	Topic
27.04.2010	Preliminaries, Overview
04.05.2010	Models of Creativity; Non-Literal Language (Intro)
11.05.2010	Type-based Idiom Extraction
18.05.2010	<i>Class given by Alexis Palmer</i>
25.05.2010	Token-Based Idiom Detection
01.06.2010	Metaphor; other types of non-literal language
08.06.2010	Neologisms; Irony and Sarcasm
15.06.2010	<i>Class given by Linlin Li (Token-based Idiom Detection)</i>
22.06.2010	Humor Detection; Humor Generation
29.06.2010	Poetry; Story Generation
06.07.2010	Evaluating Linguistic Creativity
13.07.2010	<i>ACL, class may have to be cancelled</i>
20.07.2010	<i>exam week?</i>

Big problem for NLP

- frequent
- idiosyncratic

Tasks

- type-based extraction
- token-based identification

Dissanayake said that Kumaratunga was "**playing with fire**" after she accused military's **top brass** of interfering in the peace process. Kumaratunga has said in an interview she would not tolerate attempts by the army high command to sabotage her peace moves. A defence analyst close to the government said Kumaratunga had **spoken a "load of rubbish"** and the security forces would not take kindly to her disparaging comments about them.

Metaphorical usages

You're like a restless bird in a cage. When you get out of the cage, you'll fly very high.

Music was **pouring** out of the window.

During the Iraq war, he was a **sparrow**; he didn't condone the bloodshed but wasn't bothered enough to go out and protest.

Take the sock out of your mouth and create a brand-new relationship with your mom.

Just **googled** 'Nigeria' to find a punchy intro for my **tweet**.

Oh..!! it's "so easy" ;-)

Computer-generated puns: JAPE (Binsted & Ritchie, 1994-97)

What is the difference between leaves and a car?

What do you call a strange market?

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What is the difference between leaves and a car?

One you brush and rake, the other you rush and brake.

What do you call a strange market?

Computer-generated puns: JAPE (Binsted & Ritchie, 1994-97)

What is the difference between leaves and a car?

One you brush and rake, the other you rush and brake.

What do you call a strange market?

A bizarre bazaar.

Human: McGonagall* “The Tay Bridge Disaster”

Beautiful Railway Bridge of the Silv'ry Tay!
Alas! I am very sorry to say
That ninety lives have been taken away
On the last Sabbath day of 1879,
Which will be remember'd for a very long time.

(* thought to be the worst poet in British history)

Machine: The Genuine Haiku Generator[†]

boisterous sun runs
gusting dolphins grieving dense
saxophones ascend

([†] <http://www.everypoet.com/haiku/>)

Homework

Find out about models of creativity

- in Psychology (Cognitive Science, Neuroscience)
- in Computing

Questions

- How is creativity defined, what are the main aspects?
- How can creativity be modelled?
- How can creativity be measured?
- for Computing: examples of applications (what do they do and how?)