Class 04: SemEval shared tasks

September 11, 2017

Introduction

What is SemEval ?

- International competition for semantic analysis systems

History

Senseval-1	1998	Sussex
Senseval-2	2001	Toulouse
Senseval-3	2004	Barcelona
SemEval-2007	2007	Prague
SemEval-2010	2010	Uppsala
SemEval-2012	2012	Montreal
SemEval-2013	2013	Atlanta
SemEval-2014	2014	Dublin
SemEval-2015	2015	Denver
SemEval-2016	2016	San Diego
SemEval-2017	2017	Vancouver
SemEval-2018	2018	TBA

This year

This year

- Twelve tasks in five main areas
  - Affect and creative language in tweets
  - Coreference
  - Information extraction
  - Lexical semantics
  - Reading comprehension and reasoning
- SemEval-2018 will be the 12th workshop on semantic evaluation and will be located at [TBD].
- Languages represented:
  - English (12), Spanish (3), Italian (1), Arabic (1)

Timeline

25 September	Data ready, evaluation script and baseline system available.
08 January	Evaluation period starts
29 January	Evaluation period ends
26 February	System description paper deadline
2 April	Paper notifications
16 April	Camera-ready submissions due

Approximately 13 weeks to get a system up and running.

Vyshka participation

Why participate in a shared task ?

- Great learning experience
- All participants get to send a system description paper
- Looks good on CV — both "participated" and "was best in x"
  - Especially if you're planning on applying for PhD positions

What next ?

- Describe (most of) this year's tasks
- See if any of them look interesting
- Check out some of the baseline systems

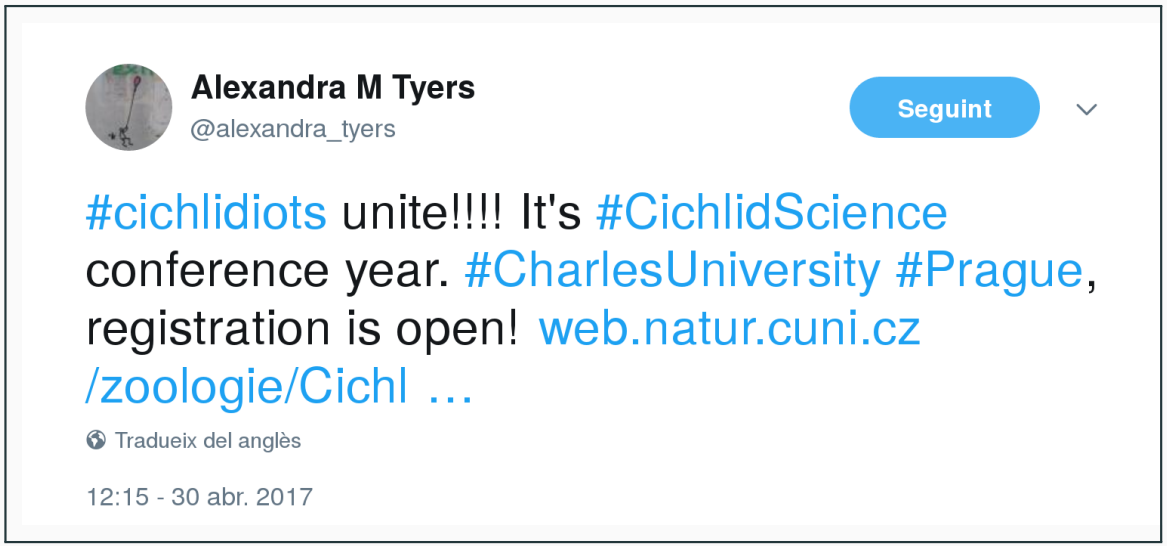
Affect and creative language in tweets

Task 1: Affect in Tweets

Previous datasets / tasks have focussed on simple binary classification of emotion This task looks at how much of each emotion is felt.

For example, given a tweet:

- detect the emotional intensity of {anger, fear, joy, sadness} from 0..1



0.9	Joy
0.0	Fear
0.0	Sadness
0.1	Anger

Languages: English, Arabic, Spanish

Task 2: Multilingual emoji prediction

Task, given a tweet,

- predict which emoji the tweet had beforehand.
- single emoji per tweet.

Languages: US English, Spanish

Task 3: Irony detection in English tweets

Irony: A trope or figurative language use whose actual meaning differs from what is literally enunciated.

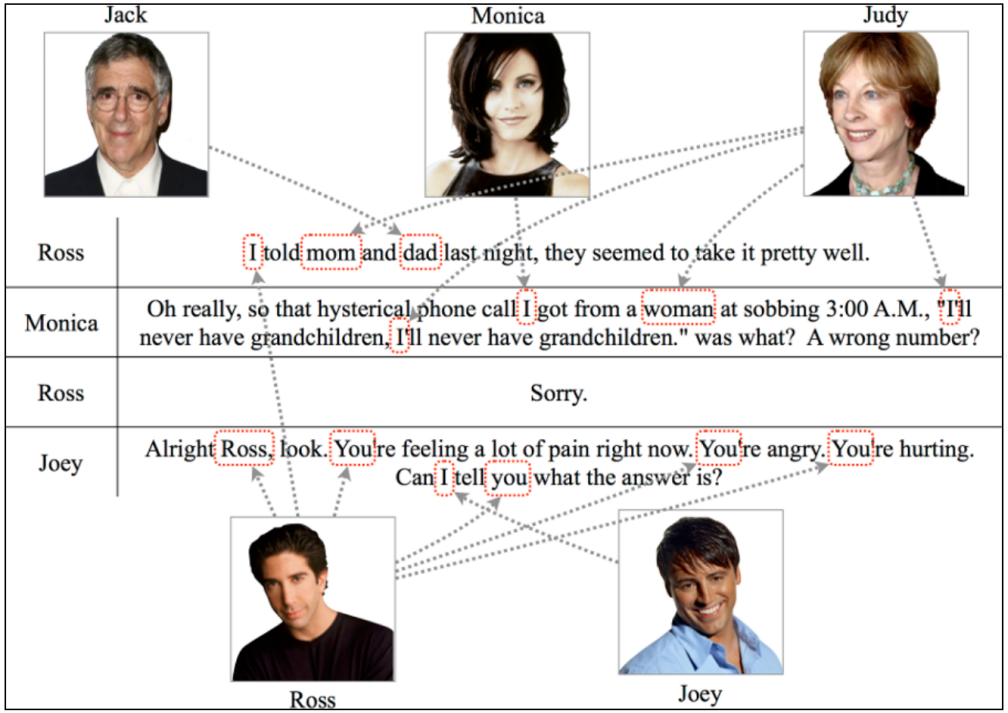
Two tasks:

- Binary classification ironic/not ironic
- Four-way classification:
  - Polarity contrast: `I love waking up with migraines #not :'(`
  - Situational: `Event technology session is having Internet problems. #irony`
  - Other: `@someuser Yeah keeping cricket clean, that's what he wants #Sarcasm`
  - Non-ironic: `…And it's payday. THIS IS A GOOD FRIDAY`

Languages: English

Coreference

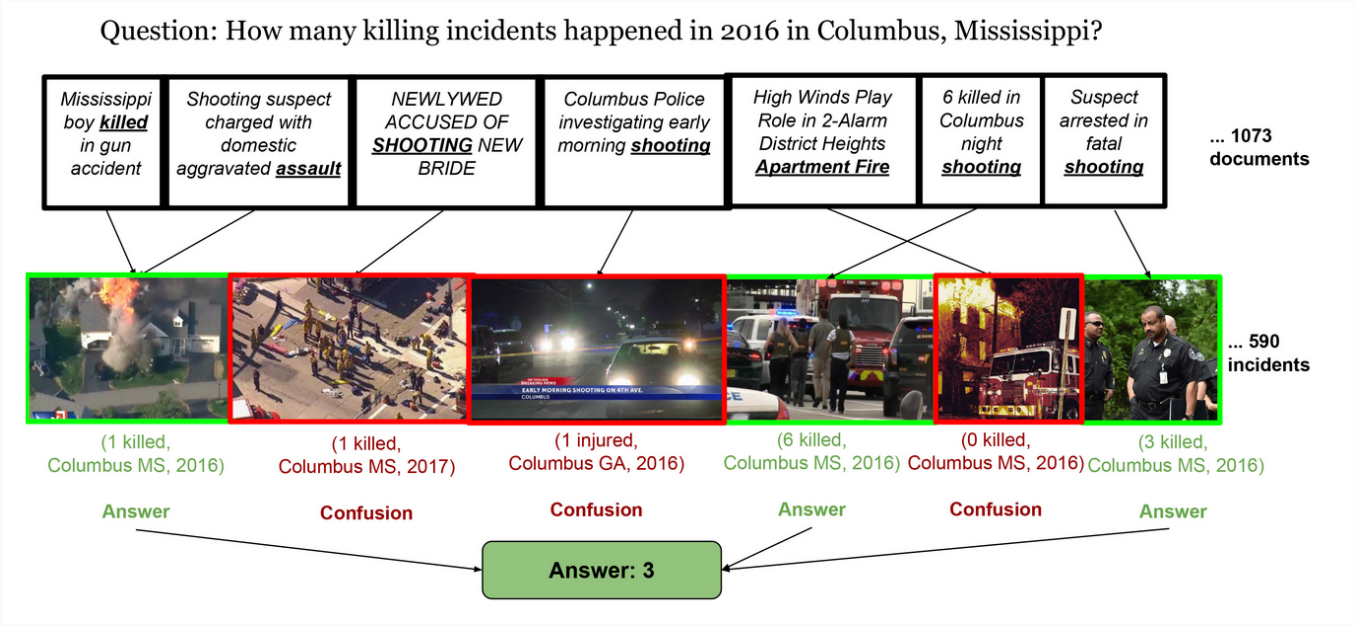
Task 4: Character identification on multiparty dialogues



								Speaker		Entity ID
0	0	He	PRP	(TOP(S(NP*)	he	-	-	Monica_Geller	*	(284)
0	1	's	VBZ	(VP*	be	-	-	Monica_Geller	*	-
0	2	just	RB	(ADVP*)	just	-	-	Monica_Geller	*	-
0	3	some	DT	(NP(NP*	some	-	-	Monica_Geller	*	-
0	4	guy	NN	*)	guy	-	-	Monica_Geller	*	(284)
0	5	I	PRP	(SBAR(S(NP*)	I	-	-	Monica_Geller	*	(248)
0	6	work	VBP	(VP*	work	-	-	Monica_Geller	*	-
0	7	with	IN	(PP*))))))	with	-	-	Monica_Geller	*	-
0	8	!	.	*))	!	-	-	Monica_Geller	*	-

Task 5: Counting events and participants in the long tail

Given a question, find news articles that correspond to the question.



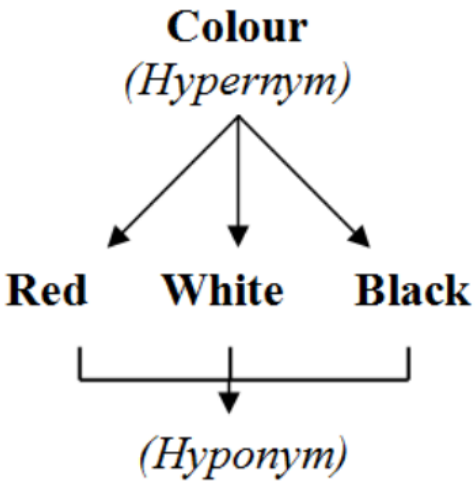
Difficulty:

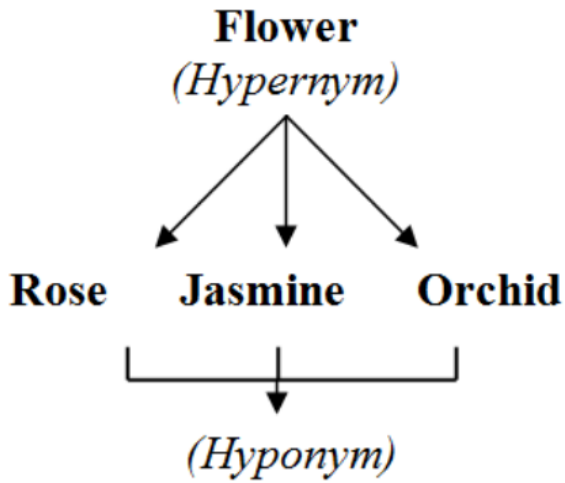
- For each correct article, there are 674 incorrect articles with overlapping context

Languages: English

Lexical semantics

Task 9: Hypernym discovery





	Term	Hypernym(s)	Source
English (general)	dog	canine, mammal, animal	WordNet
Spanish (general)	guacamole	salsa para mojar, alimento, salsa	Wikidata
Italian (general)	Nina Simone	musicista, pianista, persona	MultiWiBi

Languages: English, Spanish, Italian

Task 10: Capturing discriminative attributes

- Current models are great at detecting similarity
- But do not predict semantic differences
- If you only know what something is like but can't tell the difference it is a problem for your model



The task:

- Given a triple `(cappucino, americano, milk)`, return
  - `1 is a semantic difference`
  - `0 is not a semantic difference`

Languages: English

Reading comprehension and reasoning

Task 11: Machine comprehension using commonsense knowledge

My garden was looking a little empty, so I decided I would plant something. I went out and bought tree seeds. I found a spot that looked like it would get enough sunshine. There, I dug a hole for the seeds. Once that was done, I took my watering can and watered the seeds.

A. Why was the tree planted?

- to get enough sunshine
- the garden looks empty
- they were forced
- the soil was moist

B. What was used to dig the hole?

- the wind
- a tablespoon
- a trowel **[?]**
- their bare hands

Languages: English

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Languages: English

Task 12: Argument reasoning comprehension task

Given an argument, with a reason and a claim, the goal is to choose the correct implicit reasoning from two options.

Topic: Should voting be mandatory?
Additional info: Or are there already too many people casting ballots?
Argument: It works for Australia. And since [...] voting should be mandatory.

(a) Australians are nothing like Americans

(b) Australians are like Americans

Languages: US English

Practical

Practical

`http://alt.qcri.org/semeval2018/index.php?id=tasks`

- Choose a task
- Read the description
- Look at the provided data
- Run the baseline system
- Write your own simple baseline
- Run the evaluation script on the baseline
- Think of ways to improve the baseline