

# CheckThat! 2020

3<sup>rd</sup> edition

**Enabling the Automatic Identification and  
Verification of Claims in Social Media**



# Organization



**Alberto  
Barrón-Cedeño**



**Tamer  
Elsayed**



**Preslav  
Nakov**



**Giovanni  
da San Martino**



**Maram  
Hassanain**



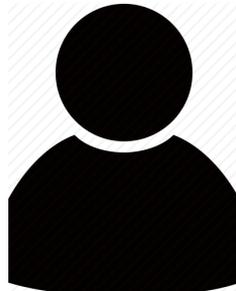
**Reem  
Suwaileh**



**Fatima  
Haouari**



**Nikolay  
Babulkov**



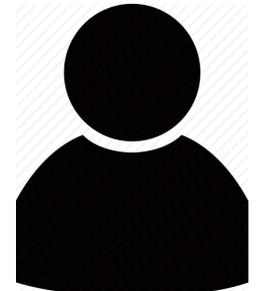
**Bayan  
Hamdan**



**Alex  
Nikolov**



**Shaden  
Shaar**



**Zien Sheikh  
Ali**

# Translation into NLP/IR Tasks

## 1. Check-Worthiness\*

← Twitter stream

→ s worth fact-checking

\* 5. Check-Worthiness on debates/speeches/press conferences

# Human Tasks, NLP/IR Support

## 1. Check-Worthiness

← **Eric Trump** ✓  
6,630 Tweets



**Eric Trump** ✓  
@EricTrump

Executive Vice President of The @Trump Organization. Husband to @LaraLeaTrump. Large advocate of @StJude Children's Hospital @TrumpWinery #MakeAmericaGreatAgain

**Eric Trump** ✓ @EricTrump · Sep 20  
Thank you Williamsport, Pennsylvania!!!! 🇺🇸 🇺🇸 🇺🇸

**Eric Trump** ✓ @EricTrump · Sep 19  
Thank You Milford Pennsylvania: you are incredible and we love you!!! I can't wait to see you again soon!!! Let's #KeepAmericaGreat #USAUSAUSA 🇺🇸 🇺🇸 🇺🇸

**Eric Trump** ✓ @EricTrump · Sep 18  
Mr. Governor - it was great to be with you today! Our family loves Maine and your incredible Lobstermen and @realDonaldTrump will never let you down! Let's #KeepAmericaGreat 🦞

**Paul R. LePage** @PaulRLePage1 · Sep 17  
Thank you @EricTrump for meeting our Lobstermen at Camp Ellis in Maine today. We know that your father is working hard for these small businesses and our entire lobster industry. His efforts are paying off! #mepolitics @realDonaldTrump



527 1.9K 8.6K

# Human Tasks, NLP/IR Support

## 1. Check-Worthiness



Eric Trump ✓  
@EricTrump

Since this will never get reported by the media, I wanted to share a copy of this check. @realDonaldTrump is once again donating his salary back to the United States Government – This quarter, it will be donated to @HHSGov to confront, contain, and combat #Coronavirus. 🇺🇸🇺🇸



Donald J. Trump

11:11 PM · Mar 3, 2020 from Manhattan, NY · Twitter for iPhone

**D. Trump is donating his salary to combat COVID19?**

**This is check-worthy!**

# Human Tasks, NLP/IR Support

## 2. Verified Claim Retrieval

←  + verified claims pool

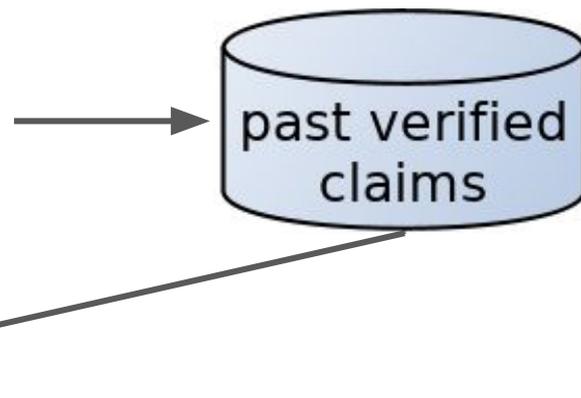
→ ranking of verified claims according to their potential to verify 



# Human Tasks, NLP/IR Support

## 2. Verified Claim Retrieval

@realDonaldTrump is once again donating his salary back to the United States [...] to confront, contain, and combat #Coronavirus



**Fact check: President Donald Trump donates his salary, but he still makes money**

**MOLLY STELLINO** | USA TODAY

<https://eu.usatoday.com/story/news/factcheck/2020/07/11/fact-check-donald-trump-donates-salary-but-he-still-makes-money/5410134002/>

# Human Tasks, NLP/IR Support

## 3. Evidence Retrieval

←  claim + Webpages

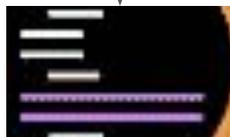
→ Web passages useful to verify 



# Human Tasks, NLP/IR Support

## 3. Evidence Retrieval

@realDonaldTrump is once again donating his salary back to the United States [...] to confront, contain, and combat #Coronavirus



# Human Tasks, NLP/IR Support

## 4. Claim Verification

←  claim + Webpages + passages

→ Veracity of the claim

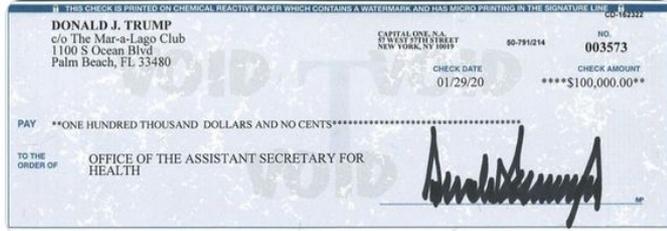


# Human Tasks, NLP/IR Support

## 4. Claim Verification



Since this will never get reported by the media, I wanted to share a copy of this check. @realDonaldTrump is once again donating his salary back to the United States Government — This quarter, it will be donated to @HHSGov to confront, contain, and combat #Coronavirus. 🇺🇸🇺🇸



Donald J. Trump

11:11 PM · Mar 3, 2020 from Manhattan, NY · Twitter for iPhone



POLITICS

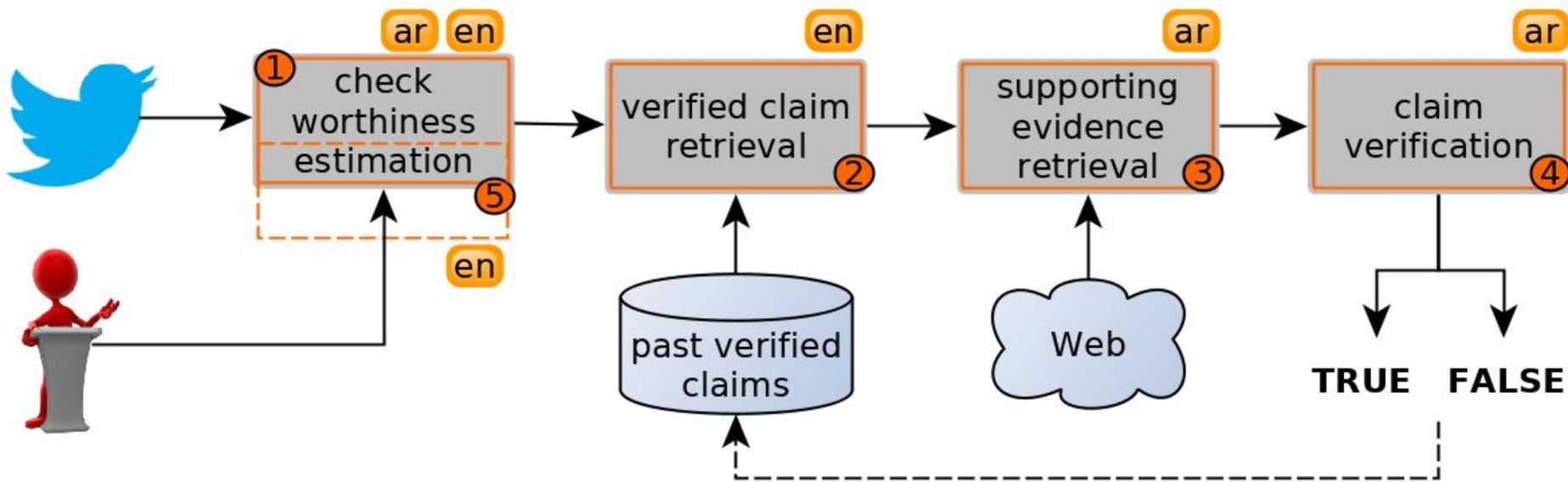
## Trump donates his 2019 fourth-quarter salary to help combat coronavirus

PUBLISHED TUE, MAR 3 2020-3:22 PM EST | UPDATED TUE, MAR 3 2020-5:03 PM EST



SHARE    

# The CheckThat! Fact-Checking Flowchart



# Languages and Participation

	1	2	3	4	5
ar	✓		✓	✓	
en	✓	✓			✓

## Datasets summary

- 1,600+ tweets
- 15,000+ web pages
- 60,000+ debate/speech/conference sentences

## Participation

- 23 teams; 86 submissions

# Models Highlights

## 1+5. Check-Worthiness

**Transformers.** BERT, RoBERTa, AraBERT, multilingual BERT

**Classifiers.** NNs, SVMs

**Features.** Word embeddings, LASER, engineered features

## 2. Verified Claim Retrieval

**Transformers.** BERT

**Scorers.** SVM, similarity, Terrier, Elastic search

## 3. Evidence Retrieval

- Feature-based similarity between claims and web page snippets

## 4. Claim Verification

- Supervised model fed by engineered features

# Models Highlights: Details in the LNCS/CEUR Papers

Team		Transf		Models						Distrib. Features Other									
		BERT	RoBERTa Huggingface	BiLSTM	CNN	Rnd forest	Linear reg	Logistic reg	SVM	FastText	GloVe	PCA	Topic models	tf-idf	Dependencies	POS	NEs	Ext. data	Graph relations
Accenture	[52]	●																	
BustingMisinformation	-				●			●		●		●	●						
Check_square	[14]	●						●			●			●	●	●			
Factify	-	●															●		
NLP&IR@UNED	[37]			●						●									●
QMUL-SDS	[2]	●			●														
Team_Alex	[42]		●																
TheUofSheffield	[38]					●				●			●						
TOBB ETU	[34]	●														●			
UAICS	-	●	●																
SSN_NLP	-		●																
ZHAW	-						●								●	●			

# Join us TODAY for the CheckThat! Parallel Sessions

Session	Time (CET)	Summary	
1	11:00-12:35	<ul style="list-style-type: none"><li>- Deeper CheckThat! 2020 overview</li><li>- Task 1 Check-Worthiness</li></ul>	en, ar
2	13:00-14:30	<ul style="list-style-type: none"><li>- Task 2 Verified Claim Retrieval</li><li>- Task 3 Evidence Retrieval</li><li>- Task 4 Claim Verification</li></ul>	en ar ar
3	17:00-18:30	<ul style="list-style-type: none"><li>- 3 invited talks</li><li>- Round table</li><li>- Final remarks</li></ul>	



# S3 (17:00 CET) Features 3 Fact-Checking Guests



**David  
Corney**



**Making fact checks work harder:  
claim matching at Full Fact**



**Rubén  
Míguez**



**ClaimHunter - an unattended claim  
detection service for fact-checkers**



**Moath  
Althaher**



**The philosophy of Fake News -  
The Big Questions!**

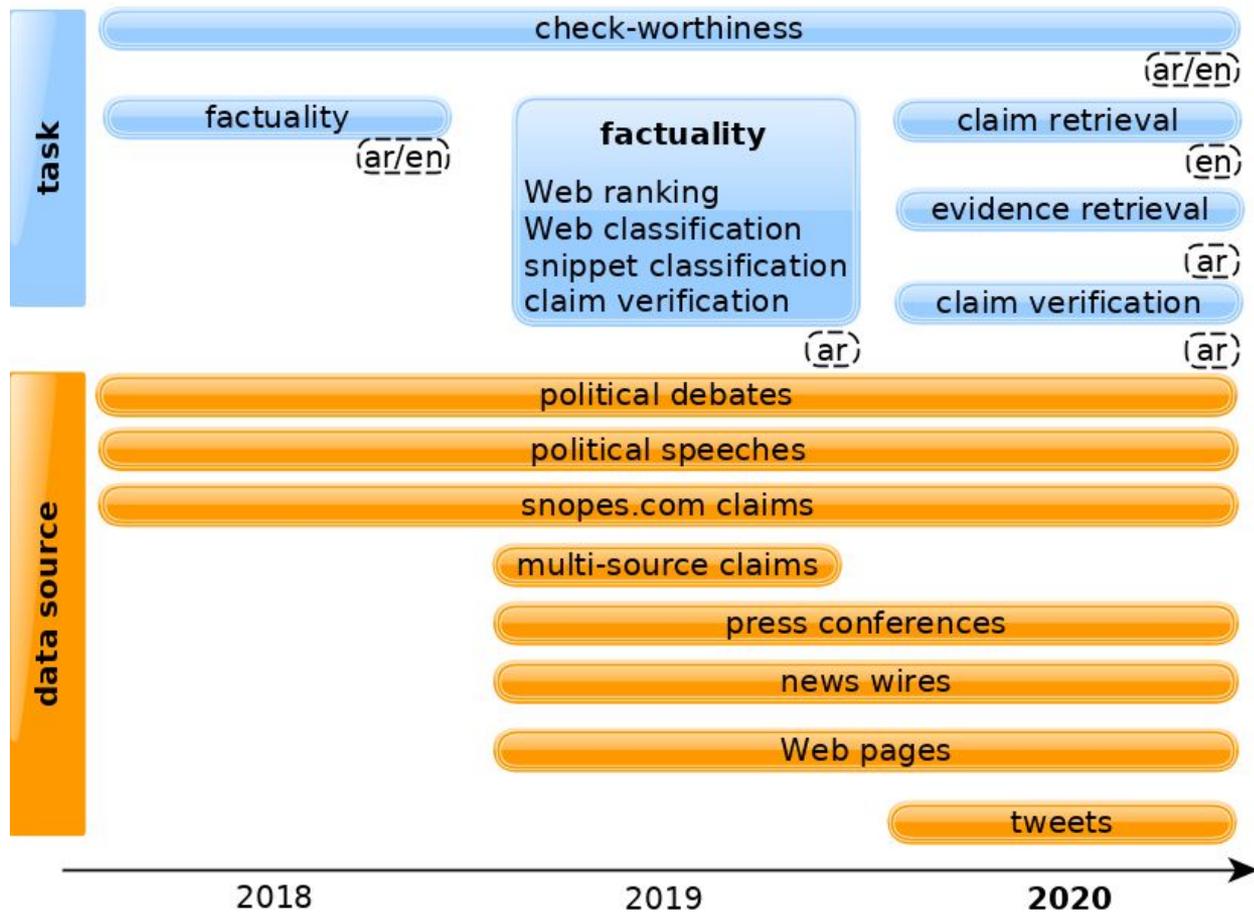
**Round table**

# Into the Future of the CheckThat! lab



(yes: CheckThat! has a new logo)

# The Evolution from 2018 to 2020



# Some of the Tasks Are Too Hard (w/o Humans)



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**Never reported  
by the media?**



Donald J. Trump

11:11 PM · Mar 3, 2020 from Manhattan, NY · Twitter for iPhone

# Some of the Tasks Are Too Hard (w/o Humans)



POLITICS

## Trump donates his 2019 fourth-quarter salary to help combat coronavirus

PUBLISHED TUE, MAR 3 2020 3:22 PM EST | UPDATED TUE, MAR 3 2020 5:03 PM EST

 **Christina Wilkie**  
@CHRISTINAWILKIE

SHARE    

Mar 3 2020, 3:22 pm EST

 **Eric Trump**  
@EricTrump

Since this will never get reported by the media, I wanted to share a copy of this check. @realDonaldTrump is once again donating his salary back to the United States Government – This quarter, it will be donated to @HHSgov to confront, contain, and combat #Coronavirus. 🇺🇸🇺🇸



 Donald J. Trump

11:11 PM · Mar 3, 2020 from Manhattan, NY · Twitter for iPhone

11:11 pm Mar 3 from Manhattan NY

“Since this will never get reported by the media”

# In 2021, We Focus on Two Tasks

## Task 1: Check-Worthiness estimation

1A: Check-worthiness of tweets	English
1B: Check-worthiness of tweets	Arabic
1C: Check-worthiness of tweets	<b>Spanish</b>
1D: Check-worthiness of debates/speeches	English

## Task 2: Detecting previously fact-checked claims

2A: Detect previously fact-checked claims from tweets	English
2B: Detect previously fact-checked claims from tweets	Arabic
2C: Detect previously fact-checked claims in political debates and speeches	English

# More Institutions are Joining the Organisation



# Let Us Virtually Meet Later Today!

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