CheckThat! 2025

8th edition

Subjectivity, Fact-Checking, Claim Extraction & Normalization, and Retrieval

https://checkthat.gitlab.io





Our Organization Team









Julia Maria Struß



Tanmoy Chakraborty



Stefan Dietze



Salim Hafid



Katerina Korre



Arianna Muti



Preslav Nakov



Federico Ruggeri



Sebastian Schellhammer



Vinay Setty



Megha Sundriyal



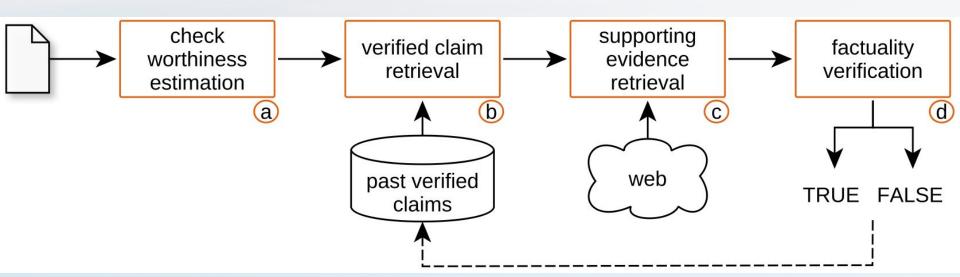
Konstantin Todorov



Venktesh Viswanathan

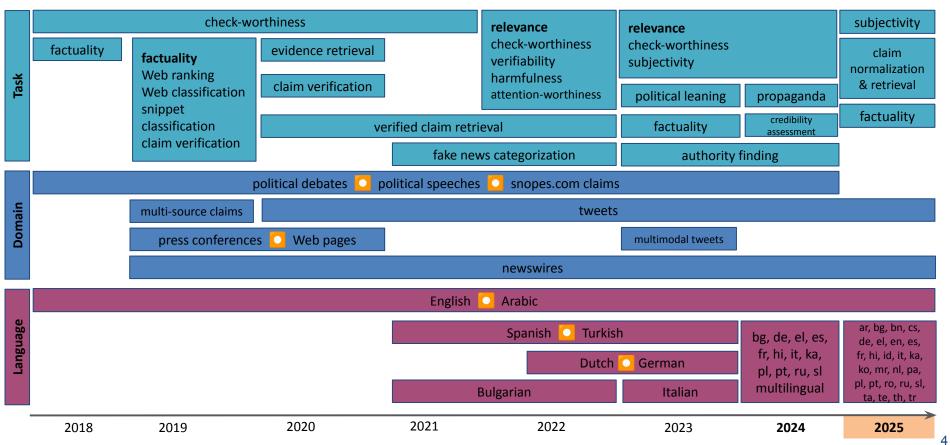
The CheckThat! Verification Pipeline





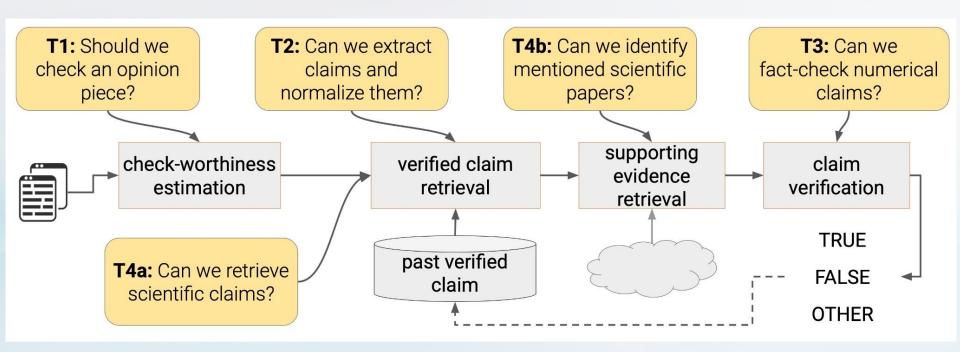
The CLEF CheckThat! Lab:Tasks, Lang & Data





The Verification Pipeline and 2025 Tasks





CLEF CheckThat! Lab 2025 Tasks



- Subjectivity detection (3rd)



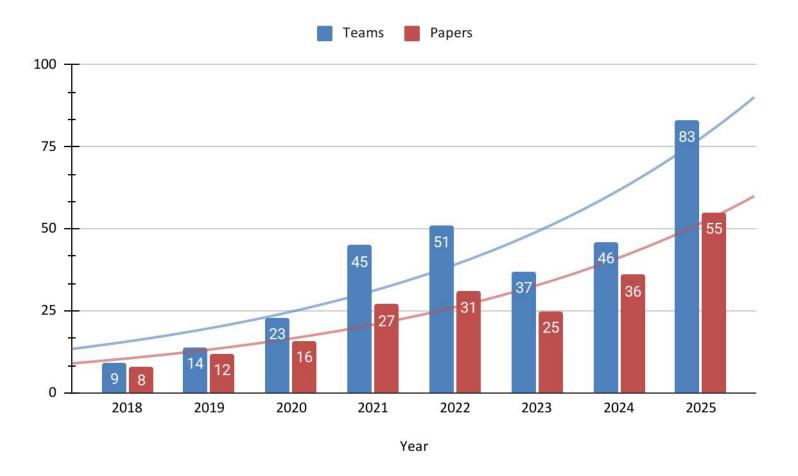
- **Fact-Checking Numerical Claims (1st)**
- **Scientific Web Discourse** (1st)





Evolution in Terms of Participation







news



Subjectivity in News Articles

Determine whether a sentence from a news article is subjective or objective.

Language	Sentence	Class
Arabic	وجدت بوحيرد نفسها بين يدي ضباط المستعمر الفرنسي فريسة ينهش لحمها بكل الطرق.	SUBJ
	كما تدخل نترات الأمونيوم في صناعة المتفجرات خاصة في مجال التعدين والمناجم.	OBJ
Bulgarian	Думите на Тръмп са просто думи, докато тези на Обама означават война.	SUBJ
	Аз се почувствах се глупаво, когато разбрах фактите.	OBJ
English	But the state's budget is nothing like a credit card.	SUBJ
	The plan incorporates cash payments supplemented by contingent contributions.	OBJ
German	Den Grünen bleibt nur, immer wieder darauf hinzuweisen, dass sie selbst gerne ein bisschen großzügiger wären -sich damit aber leider nicht durchsetzen können.	SUBJ
	Mitte November kündigte die Ampel-Koalition an, das zu ändern.	OBJ
Italian	Inoltre paragonare immagini di attori paparazzati per strada a foto di studio photo- shoppate non ha senso.	SUBJ
	Il presidente russo, Vladimir Putin, ha visitato Kaliningrad per incontrare gli studenti dell'Università Kant e tenere un incontro sullo sviluppo della regione.	OBJ

UNAM [52]

CheckThat! 2025 Task 1

Model Highlights

- Transformers were most popular, both monolingual and multilingual.
- Many performed feature selection for improvement
- Few approaches relied on LLM-based translation and data augmentation

Team				Lar	ıgu	age	e										M	ode	el									Mi	sc	
	Arabic	Italian	German	English	Multilingual	Polish	Ukrainian	Romanian	Greek	DeBERTa	BERT	MBERT	RoBERTa	DistilRoBERTa	SentimentBERT	ModernBERT	MPNet	XLM-RoBERTa	SBERT	CT-BERT	Electra	InfoXLM	Llama	GPT	Zephyr	Qwen	Data Augmentation	Translating data	LLM Prompting	Feature Selection
Al Wizards [33]	V	V	V	V	V	V	V	V	V	Y		_	_																	
Investigators [34] DSGT-CheckThat [35]	~	~	~	✓	~	V	V	~	~	~	~	~	✓	~	~	~			~								~			
CSECU-Learners [36]				_	~	~	~	~	~	~		V	_	_	_	_	~		V								_			
CEA-LIST [37]	$\overline{\mathbf{Z}}$	~	~	~	$\overline{\mathbf{Z}}$	$\overline{\mathbf{Z}}$	$\overline{\mathbf{z}}$	$\overline{\mathbf{z}}$	$\overline{\mathbf{z}}$	$\overline{\mathbf{v}}$	\checkmark								_				~	~		\checkmark			~	
IIIT Surat [38]	\checkmark	~	~	~	~	~	~	~	~		~	~																		
TIFIN INDIA [39]	\checkmark	~	~	~	~	~	~	~	~		~		~			~		~									\checkmark	~		~
ClimateSense [40]	\checkmark	~	~	~	~	~	~	✓	~				~			~		~	✓	~					~				~	
CUET_KCRL [41]				\checkmark							_	~																		_
nlu@utn [42]		_	_	\leq	_	_	_	_	_		\leq							_						_					_	~
XPlaiNLP [43]	_	\leq	\leq	\leq	~	\leq	\leq	~	Y		✓ ✓							✓						~					~	_
JU_NLP [44]	~	~	~	V	~	~	~	~	~		V													~		~				~
NapierNLP [45] UmuTeam [46]	~	V	~	V	~	~	V	~	~		~		~					~						V		Y			~	
UGPLN [47]	_	~	_		~	_	_	~	•		v		~					_	~											~
SmolLab_SEU [48]	V	~	V	Ž	V	V	V	V	~	~	~		~					~	_		~	~								_
Arcturus [49]	V	V	V	$\overline{\mathbf{z}}$	~	V	$\overline{\mathbf{z}}$	~	V	V	_		_					_			_	_								
	_	=	=	=	=				=	\overline{v}																				_
QU-NLP [50]	~	~	\checkmark	\checkmark	\checkmark	\checkmark	~	~	~	\mathbf{r}											~									~

~



3 E

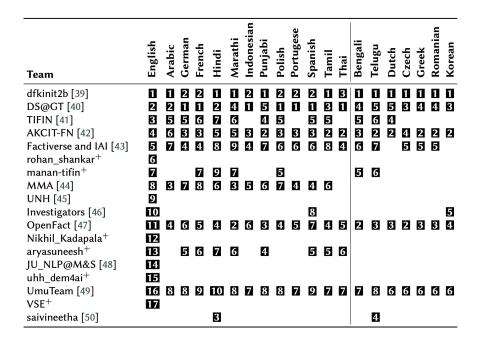
Claim Normalization

Given noisy social media posts the task is to transform them into clear, concise, and verifiable statements known as normalized claims, which capture the core factual assertion of a post.

Task 2 was offered in 20 languages: English, German, French, Spanish, Portuguese, Hindi, Marathi, Punjabi, Tamil, Arabic, etc.

	Social Media Post	Normalized Claim
English	Something to #consider don't you #think? Something to #consider, don't you #think? Something to #consider, don't you #think? 40 years worth of research*no vaccine for HIV *At least 100 years of researchno vaccine for cancer Ongoing research no vaccine for the common cold Less than a year for a Covid vaccine?	Vaccines for HIV, cold, and cancer should deter you from getting the Covid-19 vaccine.
German	Das reiche Deutschland, wir haben das geringste Durchschnittseinkommen, die geringsten Renten und die dümmsten Wähler. (Translation: Rich Germany, we have the lowest average income, the lowest pensions and the stupidest voters.)	Deutschland hat geringste Durchschnitt- seinkommen und Renten. (Translation: Ger- many has the lowest average incomes and pen- sions.)

CheckThat! 2025 Task 2 Model Highlights



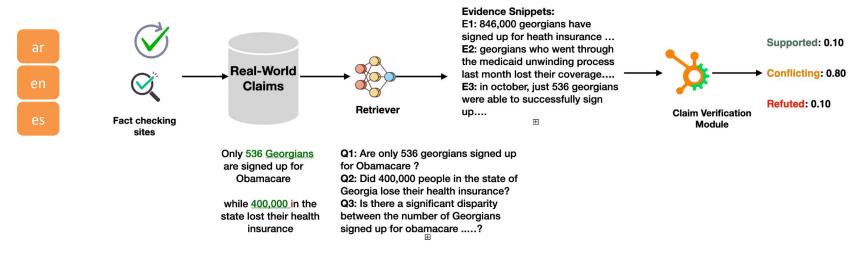
						1										
Team	Set	ting		Data	a		Аp	pro	ach			Мо	del	Fan	nily	
	Monolingual	Zero-Shot	Content Filtering	Deduplication	Data Augmentation	Fine-Tuning (Full/PEFT)	Zero-Shot Prompting	Retrieval-Augmented ICL	Self-Reflection/Reasoning	Ensemble/Hybrid System	T5-family (T5, Flan-T5)	BART	GPT-family	Llama-family	Qwen	Gemma
dfkinit2b [39]	~	✓	✓	\checkmark		~	~	✓		<u>~</u>				~	~	~
DS@GT [40]		V	_	\mathbf{Z}	_	_	\leq	\leq	_	~			~		_	
TIFIN [41]		✓	\checkmark	$ \angle $	~	~	\leq	\leq	~			_	_		✓	
AKCIT-FN [42]	✓ ✓	~		~	2	~	~	✓			✓ ✓	~	~	~	V	
Factiverse and IAI [43] MMA [44]	V				~	V	Ž	~			✓			~	V	
UNH [45]	V				_	Ž	Ž	~	~		Ž		V	~	_	
Investigators [46]	V	~	abla			$\overline{\mathbf{z}}$	_	_	_		Z	~		$\overline{\mathbf{z}}$		
OpenFact [47]		$\overline{\mathbf{Z}}$	$\overline{\mathbf{Z}}$			$\overline{\mathbf{z}}$			~		_	_	~	$\overline{\mathbf{v}}$		
JU_NLP@M&S [48]	\checkmark			\checkmark		\checkmark						~				
Saivineetha [50]	~	~				\checkmark	~									~
UmuTeam [49]	\blacksquare	\checkmark				~					\checkmark					



3 E

Fact-checking numerical claims

Task: : Given a numerical claim and the retrieved evidence snippets, the goal is to predict if the evidence supports, refutes, conflicting or is unrelated to the numerical claim.



Claim +. Decomposed questions

Evaluation: Macro-F1, Weighted-F1, Per-class F1

CheckThat! 2024 Task 3: Model Highlights



Dataset statistics for different languages, such as English, Spanish and Arabic.

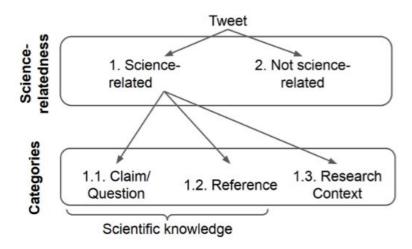
Split		Eng	glish			Spa	nish			Ara	bic	
	T	F	С	Total	Т	F	С	Total	Т	F	С	Total
Train	1,824	5,770	2,341	9,935	127	1,200	179	1,506	975	1,216	-	2,191
Dev	617	1,795	672	3,084	30	299	48	377	274	313	-	587
Test	717	2,275	664	3,656	115	1,539	152	1,806	206	276	-	482

Team	La	ıng	uage	•					1	Mo	del						Macro-F1			
	Arabic	Spanish	English	BM25	cross-encoder	gpt-40-mini	Qwen	Llama	DeepSeek	ModernBERT	Math-Roberta RoBERTa-base	QWQ-32B	Qwen-8B	Deberta-Large-MNLI	mxbai-rerank-large-v1	granite-3.3-8b-instruct	Arabic	Spanish	English	
LIS [45]		~	~	İ								~	1				50.34	96.15	59.54	
DS@GT-CheckThat! 41			~	_										-			-	=	52.10	
TIFIN [39]	$\overline{}$		\checkmark	✓										~		~	55.36		55.70	
ClaimIQ [11]			\checkmark		_			~			_						-	-	42.43	
FraunhoferSIT [59]	_	_	\checkmark	_	\leq			~	_		~						-	-	51.00	
NGU_Research [1]		~		\mathbb{Z}	V				~								63.52	24.41	40.00	
JU_NLP [23]			\mathbf{Z}	\leq	~	_		_									36.38	(i)	48.83	
CornellNLP [26]			\leq	\leq		~		~			_						-	-	48.57	
UGLPN 80		_	~	\leq		_					~	9					-	25.05	45.53	
UCOM_UNAM_PLN [2]		M			_	~			_								-	35.95	40.00	
News-polygraph*		\checkmark		~	~				~								-	-	42.86	

ŦΕ

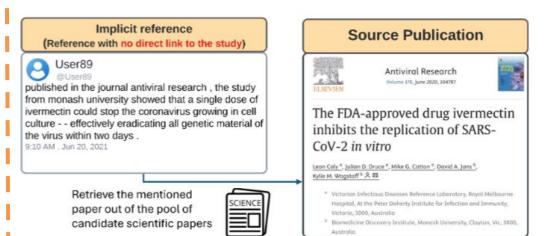
Scientific Web Discourse

Task 4a: Scientific Web Discourse Detection



Objective: Detecting different forms of scientific web discourse (e.g., claims, references)

Task 4b: Scientific Claim Source Retrieval



Objective: Retrieving source publications from which claims and references originate



Model Highlights

Task 4a: Scientific Web Discourse Detection

Team		٨	1ode	ls			Misc		Perf.		
	DeBERTa-v3	SciBERT	Twitter-RoBERTa	LLMs	Others	Data Augmentation	Ensemble	Other Optimizations	Macro-avg. F1-Score	Rank	
ClimateSense [18]	Ī							_	0.7998	1	
VerbaNexAI [20]									0.7983	2	
SBU-SCIRE [21]									0.7917	4	
DS@GT [23]									0.7685	6	
DeBERTa-v3 Baseline									0.7668	7	
TurQUaz [24]									0.7615	8	
JU_NLP [25]									0.7347	9	

Task 4b: Scientific Claim Source Retrieval

Team		Mo	dels		Mi	sc.	Per	f.
	Dense Retrieval	Sparse Retrieval	Re-ranking	LLMs	Data Augmentation	Style transfer	MRR@5	Rank
AIRwaves [26]							0.67	2
Deep Retrieval [27]							0.66	3
ATOM [28]							0.66	4
SBU-SCIRE [21]							0.65	5
SeRRa [29]							0.61	8
Claim2Source [30]							0.59	12
DS@GT [31]							0.58	16
BM25 Baseline							0.43	28

Programme



CT! oral session 1: Thursday 11th September, 14:15 to 15:45

14:15 - Introduction to the CheckThat! Lab

15:00 - Task 1 & 2: Three talks on Subjectivity and Claim Normalization

CLEF poster session 3: Thursday 11th September, 15:45 to 16:30

CT! oral session 2: Thursday 11th September, 16:30 to 18:00

16:30 - Task 2: One talk on Claim Normalization

16:45 - Task 3: Three talks on Numerical Claim Verification

17:30 - Task 4: Two talks on Numerical Claim Verification

CT! oral session 3: Friday 12th September, 11:30 to 13:00

11:30 - Invited talk. Rubén Míguez Pérez

Details on the CheckThat! website:

http://checkthat.gitlab.io/clef2025/#lab-programme

Keynote



Title: Automated detection of disinformation campaigns targeting brands. Turning automated fact-checking into a profitable business

Speaker: Rubén Míguez



Rubén Míguez holds a PhD in Telecommunications Engineering from the University of Vigo and an MBA from the School of Industrial Organization. He started his career in research at the University of Vigo, specializing in intelligent systems. In 2018, he joined Newtral as a product leader and head of technology, where he focused on leveraging AI to combat misinformation. He is also the founder of a tech startup and has received several accolades, including the National University Entrepreneur Award and the Antonio Palacios Award for Innovation.

Rubén has served as a mentor on platforms such as Startup Pirates and has presented at various national and international events. Rubén Míguez is the CTO and co-founder of TrueFlag.ai, a Newtral spin-off dedicated to applying automated fact-checking for brand protection. TrueFlag is the first multilingual and multimodal SaaS platform designed to detect and prevent disinformation campaigns in real-time.

Title: Automated detection of disinformation campaigns targeting brands. Turning automated fact-checking into a profitable business

Abstract:

In this talk, Rubén Míguez will share his work at Trueflag.ai, a cutting-edge startup focused on leveraging automated fact-checking technologies to detect targeted disinformation campaigns on social media directed at major brands. He will discuss how the original technology developed for fact-checkers at Newtral has evolved into a new Al framework—combining open-source and proprietary models—designed to identify harmful narratives affecting brands across industries such as energy and banking. The presentation will outline the key challenges that lie ahead, highlight the solutions already deployed, and trace the transition from a monolithic, BERT-based architecture to a multi-agent framework for disinformation detection. In addition, we'll explore the core business use cases and scientific objectives driving the development of this technology, offering the audience a broader perspective on what it takes to transform automated fact-checking into a viable and impactful business model—while addressing the real-world needs of fact-checkers and researchers alike.

CheckThat! 2025

https://checkthat.gitlab.io

















University of Stavanger





DELHI





Università Bocconi

MILANO

Acknowledgements







