CheckThat! 2023

6th edition

Checkworthiness, Subjectivity, Political Bias, Factuality, and Authority of News Articles and Their Sources

http://checkthat.gitlab.io

CLEF 2023 plenary session, 20 September, Thessaloniki, Greece

Organisation

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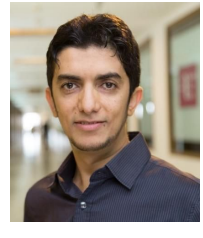
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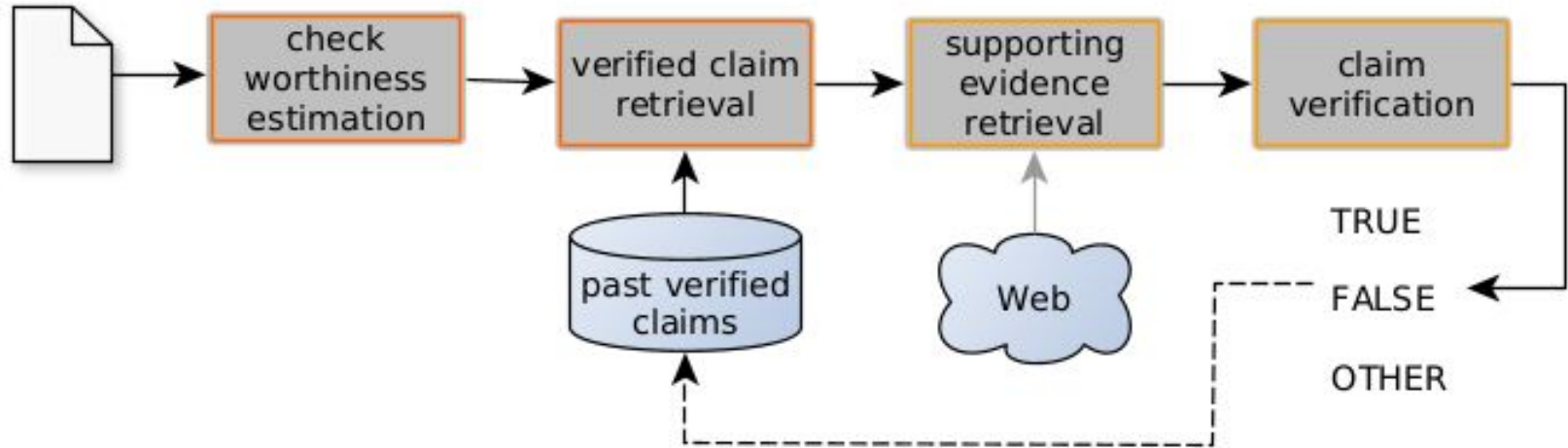
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The CheckThat! Verification Pipeline
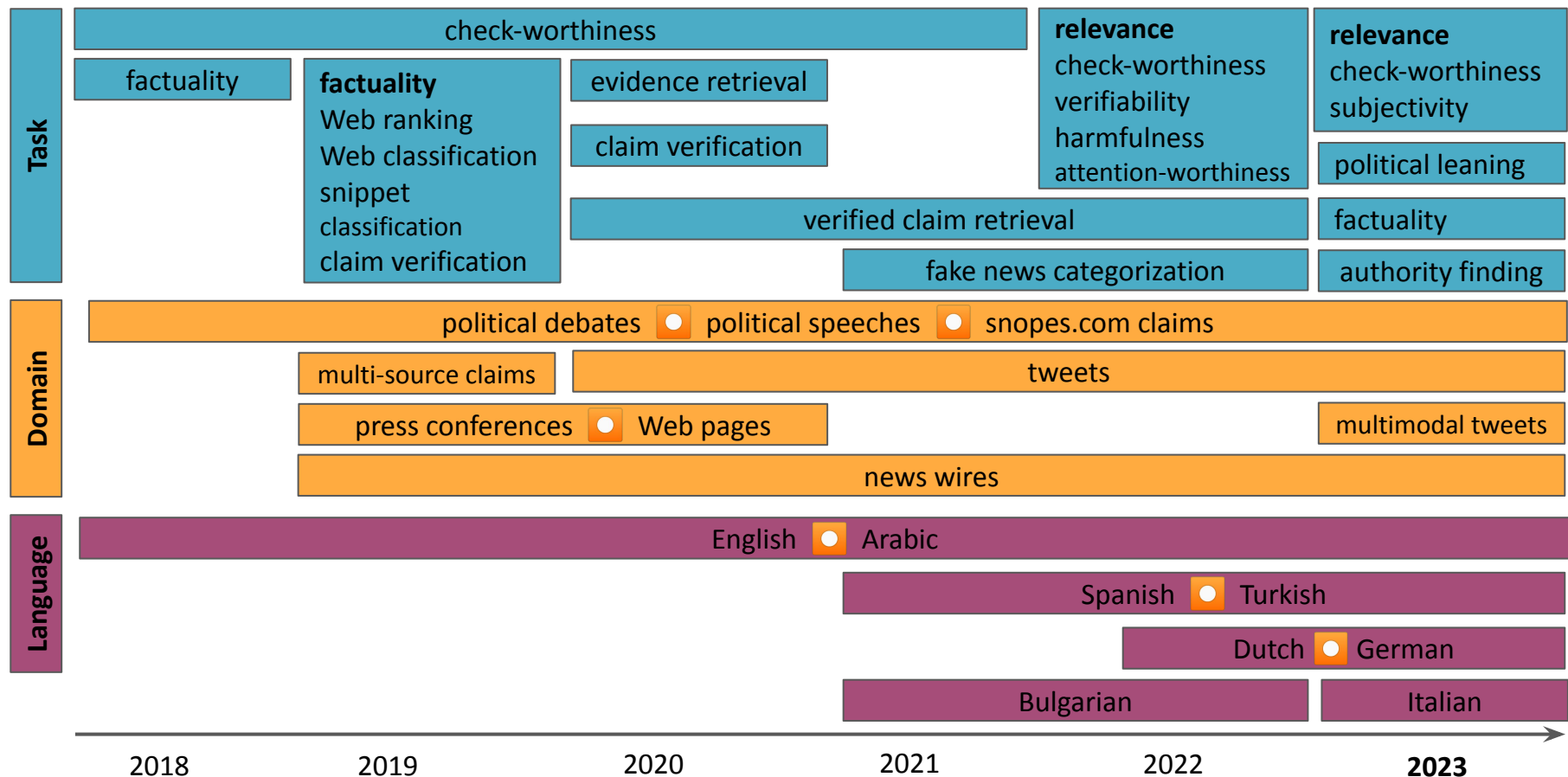
The Focus in 2023

1. **Auxiliary** tasks for the verification process

2. **Multimodality**

3. Further **multilinguality**

The Main Focus So Far

Task

- check-worthiness
- factuality
- **factuality** / Web ranking / Web classification / snippet classification / claim verification
- evidence retrieval
- claim verification
- verified claim retrieval
- fake news categorization
- **relevance** / check-worthiness / verifiability / harmfulness / attention-worthiness
- **relevance** / check-worthiness / subjectivity
- political leaning
- factuality
- authority finding

Domain

- political debates ● political speeches ● snopes.com claims
- multi-source claims
- tweets
- press conferences ● Web pages
- multimodal tweets
- news wires

Language

- English ● Arabic
- Spanish ● Turkish
- Dutch ● German
- Bulgarian
- Italian

2018   2019   2020   2021   2022   **2023**
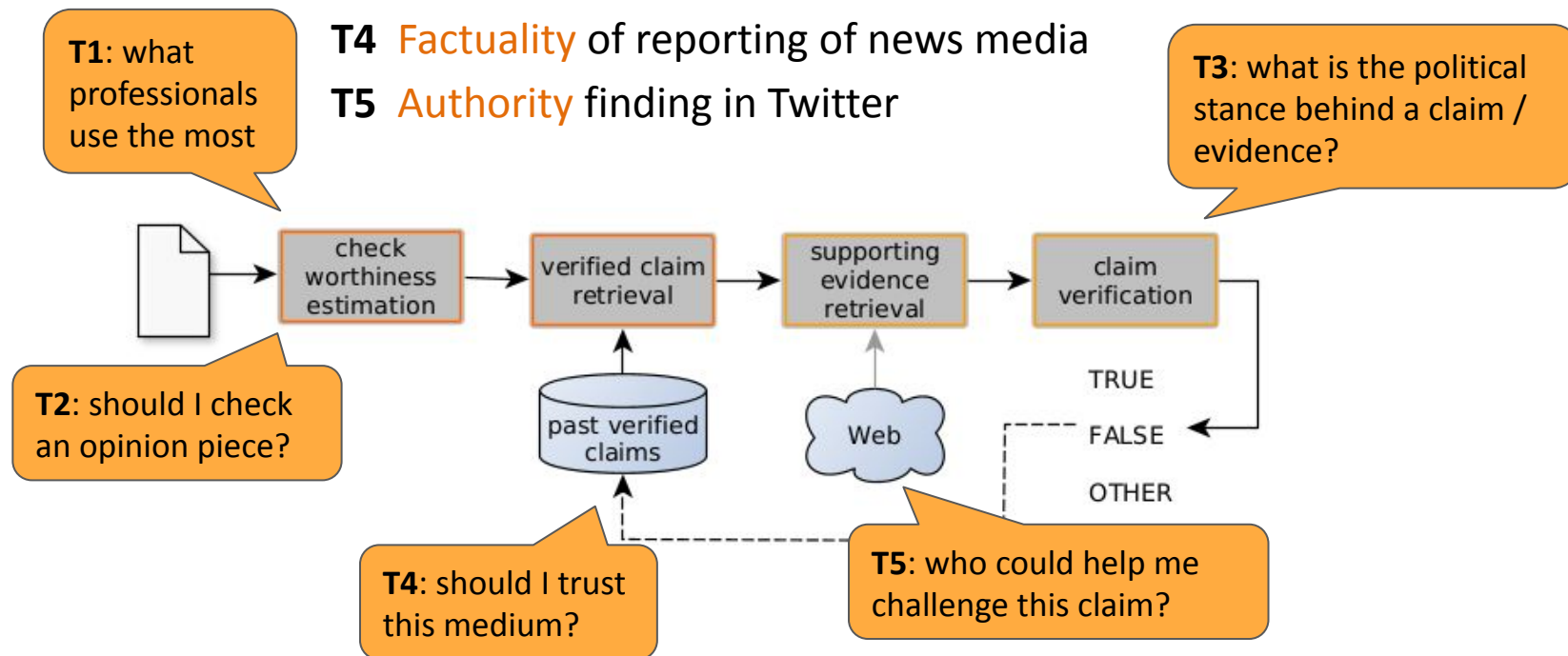
The CheckThat! 2023 tasks

T1 Check-worthiness in multi/unimodal contents

T2 Subjectivity in news articles

T3 Political bias of news articles/media

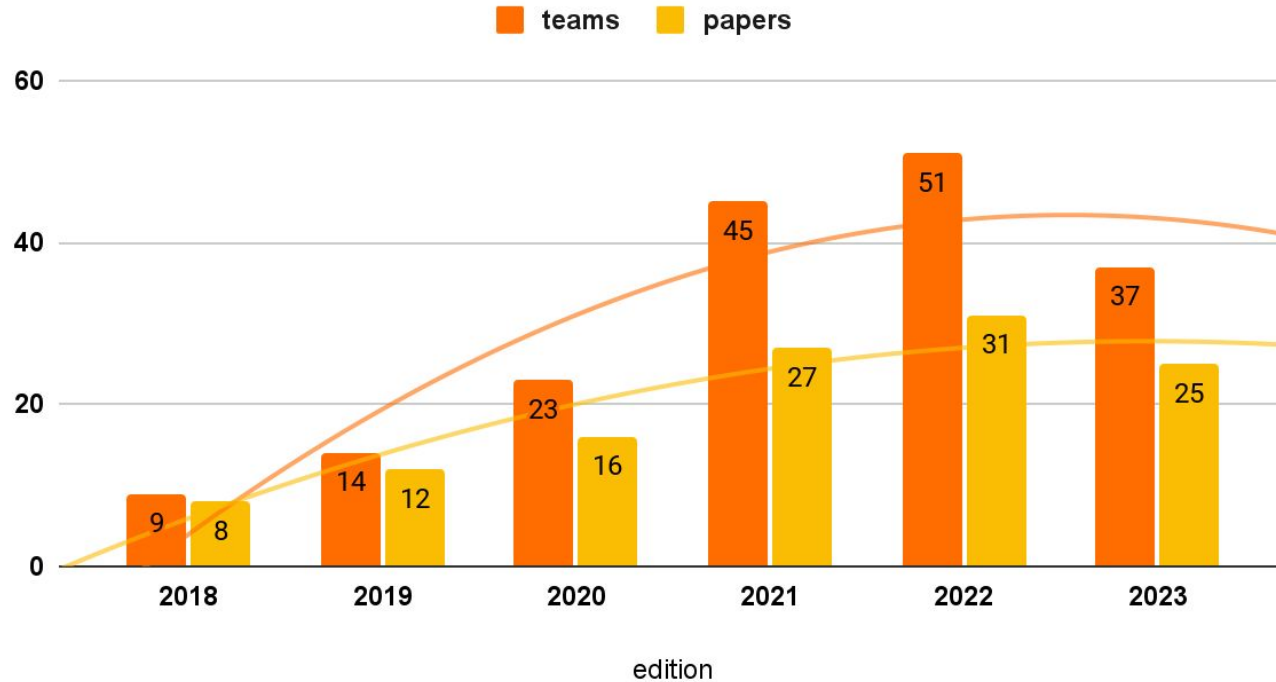**T4** Factuality of reporting of news media

T5 Authority finding in Twitter

T1: what professionals use the most

T2: should I check an opinion piece?

T3: what is the political stance behind a claim / evidence?

T4: should I trust this medium?

T5: who could help me challenge this claim?

check worthiness estimation → verified claim retrieval → supporting evidence retrieval → claim verification

past verified claims

Web

TRUE
FALSE
OTHER

Evolution in Terms of Participation

Participation

CheckThat! 2023 Task 1

Check-worthiness in Multimodal and Multigenre Content

1A (Multimodal): Assess whether a tweet —including both text and image— is check-worthy

ar • en

1B (Multigenre): Assess whether a text snippet alone —from a tweet or a debate/ interview/speech transcription— is check-worthy

ar • en • es

Before thinking of climate change.You need to change yourself.change your act.g geneciod in southern Cameroon

Checkworthy

1. Check-worthiness

Transformers. GPT-3, *BERT, AraBERT, XLM-RoBERTa

Multimodality: Vision Transformer, CLIP, Ensemble (Text: BERT, Image: VGG, ResNet, EfficientNet)

Others: *Multilingualism paid*, Data augmentation

CheckThat! 2023 Task 1

Check-worthiness in Multimodal and Multigenre Content

1A (Multimodal): Assess whether a tweet —including both text and image— is check-worthy

Before thinking of climate change.You need to change yourself.change your act.g geneciod in southern Cameroon

UNITED NATIONS IS COVERING UP THE GENOCIDE IN SOUTHERN CAMEROONS

We have the best, lowest number in carbon emissions, which is a big standard that I noticed Obama goes with all the time.

Checkworthy

ar • en

1B (Multigenre): Assess whether a text snippet alone —from a tweet or a debate/interview/speech transcription— is check-worthy

#عاجل لجنة المتابعة العليا للقوى الوطنية والإسلامية تعلن الإضراب الشامل لكل مرافق الحياة في غزة باستثناء الصحة غدًا الأربعاء وتدعو لرفع الأعلام السوداء واستمرار الاشتباك المفتوح مع الاحتلال لإسقاط صفقة القرن #تسقط_صفقة_القرن
https://t.co/JidPBhfmEo

Translation: Urgent: The Supreme Follow-up Committee of the National and Islamic Forces announces a comprehensive strike on all life facilities in Gaza, except for health, tomorrow, Wednesday, and calls for the raising of black flags and the continuation of open clashes with the occupation to bring down the deal of the century. #Down_Deal_of_the_Century https://t.co/JidPBhfmEo

ar • en • es

10

CheckThat! 2023 Task 1

Check-Worthiness in Multimodal and Multigenre Content

1A (Multimodal): Assess whether a tweet —including both text and image— is check-worthy

1B (Multigenre): Assess whether a text snippet alone —from a tweet or a debate/interview/speech transcription— is check-worthy

The Malaysian Ministry of Education has introduced E-Skrol, an application built on the NEM blockchain to deal with the issue of certificate fraud through the use of blockchain technology.

(a) Checkworthy

Turns out I've been doing airborne precautions wrong my whole life. #coronavirus

(b) Not-checkworthy

ar • en

الان عودة الاشتباكات العنيفه في نهم والجيش الوطني يسحق الحوثيين في وادي حريب

Translation: Now the violent clashes are back in Nehm, and the national army is crushing the Houthis in Wadi Harib

(c) Checkworthy

واقعياً مليشيا الإصلاح بـ #مآرب هي خط الدفاع الأول عن الحوثيين

Translation: Realistically, the Islah militia in Marib is the first line of defense for the Houthis

(d) Not checkworthy

ar • en • es

CheckThat! 2023 Task 2

Subjectivity in News Articles. Determine whether a sentence from a news article is subjective or objective (binary classification)

Leftists claim the perfectly good legal phrase "illegal alien" is somehow sinister and dehumanizing.

SUBJ

It is not entirely clear how BA.4.6 has emerged, but it's possible it could be a recombinant variant.

OBJ

Voi siete il governo peggiore in assoluto.
[You are absolutely the worst government]

SUBJ

ar • de • nl • en • it • tr • multilingual

CheckThat! 2023 Task 2 - Model Highlights

2. Subjectivity

  Transformers. *BERT, RoBERTa versions (best models)

  ChatGPT, GPT-3

  Data augmentation backtranslation, style change, GPT*

  Multilingual training

CheckThat! 2023 Task 3

Subtask 3A: Given an article, classify its political leaning as left, center, or right.

Subtask 3B: Given the news article(s) from a news outlet (e.g., www.cnn.com), predict the overall political bias of that news outlet as left-, center- or right-leaning.

Ford temporarily lays off hundreds of workers at Michigan plant where UAW is on strike

🏷 Economy And Jobs, Labor, Auto Industry, Ford, Strikes

Posted on AllSides September 16th, 2023

From The Left

CBS News (Online)

L L C R R

AllSides Media Bias Rating: Lean Left

✓ agree   ✗ disagree

MATTHEW HATCHER/AFP VIA GETTY IMAGES

Ford Motor said it had temporarily laid off 600 non-striking workers at its assembly plant in Wayne, Michigan, only hours after other employees at the facility had walked off the job early Friday as part of the United Auto Workers' historic strike against the Big Three automakers.

The labor union launched targeted work stoppages at the plant, along with a General Motors factory in Wentzville, Missouri, and a Stellantis plant in Toledo, Ohio, after failing to reach a new labor agreement with the

TikTok and White House return to negotiating table over app's fate in US

🏷 Technology, TikTok, Business, White House

Posted on AllSides September 15th, 2023

From The Right

TikTok has restarted its efforts to negotiate with the government on whether it will be allowed to continue operations in the United States or be banned over its connections to China.

Teams from TikTok parent company ByteDance and the Committee on Foreign Investment in the United States met at the Treasury Department to restart negotiations last week, according to the Washington Post. There's little evidence that CFIUS, an oversight agency regulating how foreign companies operate within the U.S., has changed its stance. The government previously said the company had two options: wait for...

Washington Examiner

L L C R R

AllSides Media Bias Rating: **Lean Right**

✓ agree   ✗ disagree

Language: **en**

CheckThat! 2023 Task 3 - Model Highlights

3. Political leaning/bias

      LLMs: ChatGPT (Zero-, few-shot prompting)

      Data Augmentation: Back translation

      Transformers. RoBERTa

CheckThat! 2023 Task 4

Given the news article(s) of a news outlet (e.g., www.cnn.com), predict the factuality of reporting of that news outlet: low, mixed, or high.

Extreme | Left | Left-Center | Least Biased | Right-Center | Right | Extreme

Factual Reporting
Very High
High
Mostly Factual
Mixed
LOW
Very Low

QUESTIONABLE SOURCE

A questionable source exhibits *one or more* of the following: extreme bias, consistent promotion of propaganda/conspiracies, poor or no sourcing to credible information, a complete lack of transparency, and/or is fake news. Fake News is the *deliberate attempt* to publish hoaxes and/or disinformation for profit or influence (Learn More). Sources listed in the Questionable Category *may* be very untrustworthy and should be fact-checked on a per-article basis. Please note sources on this list *are not* considered *fake news* unless specifically written in the reasoning section for that source. See all Questionable sources.

- Overall, we rate the American Thinker, Questionable based on extreme right-wing bias, promotion of conspiracy theories/pseudoscience, use of poor sources, and several failed fact checks.

Language: **en**

CheckThat! 2023 Task 4 - Model Highlights

4. Factuality of reporting

    Transformers: Both teams used RoBERTa

    Regularized adversarial training (top system)

    Data augmentation

CheckThat! 2023 Task 4

Given the news article(s) of a news outlet (e.g., www.cnn.com), predict the factuality of reporting of that news outlet: low, mixed, or high.

QUESTIONABLE SOURCE

A questionable source exhibits *one or more* of the following: extreme bias, consistent promotion of propaganda/conspiracies, poor or no sourcing to credible information, a complete lack of transparency, and/or is fake news. Fake News is the *deliberate attempt* to publish hoaxes and/or disinformation for profit or influence (Learn More). Sources listed in the Questionable Category *may* be very untrustworthy and should be fact-checked on a per-article basis. Please note sources on this list *are not* considered *fake news* unless specifically written in the reasoning section for that source. See all Questionable sources.

- Overall, we rate the American Thinker, Questionable based on extreme right-wing bias, promotion of conspiracy theories/pseudoscience, use of poor sources, and several failed fact checks.

Detailed Report

Reasoning: **Conspiracy, Propaganda, Lack of Ownership Transparency, Failed Fact Checks**
Bias Rating: **EXTREME RIGHT**
Factual Reporting: **LOW**
Country: **USA**
Press Freedom Rating: **MOSTLY FREE**
Media Type: **Website**
Traffic/Popularity: **High Traffic**
MBFC Credibility Rating: **LOW CREDIBILITY**

RIGHT-CENTER BIAS

These media sources are slight to moderately conservative in bias. They often publish factual information that utilizes loaded words (wording that attempts to influence an audience by appeals to emotion or stereotypes) to favor conservative causes. These sources are generally trustworthy for information but may require further investigation. See all Right-Center sources.

- Overall, we rate 7NEWS Right-Center Biased based on story selection and editorial positions that favor the right. We also rate them Mixed for factual reporting due to a few false and controversial claims.
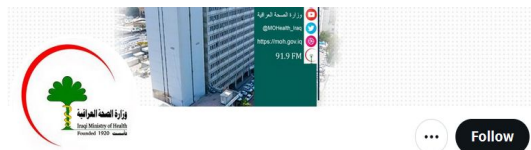
Detailed Report

Bias Rating: **RIGHT-CENTER**
Factual Reporting: **MIXED**
Country: **Australia**
Press Freedom Rating: **MOSTLY FREE**
Media Type: **TV Station**
Traffic/Popularity: **High Traffic**
MBFC Credibility Rating: **MEDIUM CREDIBILITY**

Language: **en**

18

CheckThat! 2023 Task 5

Authority Finding in Twitter: Given a tweet stating a rumor, retrieve a ranked list of authority Twitter accounts that can help verify the rumor, e.g., they may tweet evidence that supports or denies that rumor.

Language: **ar**

CheckThat! 2023 Task 5 - Model Highlights

5. Authority finding

      Lexical retrieval. BM25

      Semantic retrieval. Arabic BERT, MARBERT

      Hybrid retrieval. Lexical + Semantic + Twitter user features

CheckThat! 2023 Datasets Overview

	ar	de	nl	en	es	it	tr	total
1A*	4,134			3,911				**8,045**
1B	8,926			23,851	29,984			**62,761**
2	1,927	1,291	1,500	1,292		2,280	1,240	**9,530**
3A				55,272				**55,272**
3B				1,023				**1,023**
4				1,189				**1,189**
5	180 R 395k U							**180 R 395k U**

* Multimodal (twitter text + picture)   R: rumours   U: users

Programme - Thursday 21st

Time (EET)	Summary
9:30-10:10	Detailed CheckThat! lab overview
10:10-11:00	Participant talks, Task 1
11:30-13:00	Participant talks, Tasks 2 and 3
14:00-15:30	Participant talks, Tasks 4 and 5
14:30-15:30	Invited talks: Yarden Skop and Paolo Rosso Open discussion

Programme - Thursday 21st

Time (EET)	Highlights
9:30-10:10	Detailed CheckThat! lab overview
10:10-11:00	Participant talks, Task 1
11:30-13:00	Participant talks, Tasks 2 and 3
14:00-15:30	Participant talks, Tasks 4 and 5
14:30-15:30	Invited talks Open discussion

Invited talks: 14:30 - 16:00 - Thursday 21st

Yarden Skop The perils of automated fact checking, and how we can deal with them together

Paolo Rosso CheckThat! Emotions, images and conspiracy theories

CheckThat! 2023