

Title: ClaimPortal: Integrated Monitoring, Searching, Checking, and Analytics of Factual Claims on Twitter

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REVIEWER #1

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Reviewer's Scores

Appropriateness (1-5): 4

Clarity (1-5): 4

Originality / Innovativeness (1-5): 2

Soundness / Correctness (1-5): 3

Meaningful Comparison (1-5): 3

Thoroughness (1-5): 3

Impact of Ideas or Results (1-5): 3

Recommendation (1-5): 4

Reviewer Confidence (1-5): 3

Detailed Comments

This demo paper presents ClaimPortal, an online tool which monitors, searches and verifies factual claims on Twitter. I think it may be useful for both professional which work in this field as well as for the general public. I've been using the online tool, which I think it's interesting even if most times it didn't work.

The paper describes the architecture of ClaimPortal, which combines several tools (including ClaimBuster) to gather and to analyze the information. Interestingly, it uses some new FrameNet frames proposed by the authors.

If I'm not wrong, ClaimPortal only works for English (and at the moment, only for American politics). This should be stated at the beginning of the paper (maybe even in the title or in the abstract). Otherwise, readers may incorrectly think that the tools is multilingual or language-independent.

About the paper itself, it is well written and easy to read. However, I found an issue which I consider unacceptable for a scientific publication. The first paragraph of the paper is a copy-paste from <https://easychair.org/cfp/misinfoworkshop2019> (which is funny in a paper about fact checking). There are also other statements in the introduction which need references to support them: for instance, it is said that fact checkers skipped social media due to limited resources. I'm not saying that this is false, but without more data or references I can't trust this information.

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REVIEWER #2

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Reviewer's Scores

Appropriateness (1-5): 5
Clarity (1-5): 5
Originality / Innovativeness (1-5): 5
Soundness / Correctness (1-5): 3
Meaningful Comparison (1-5): 4
Thoroughness (1-5): 5
Impact of Ideas or Results (1-5): 4
Recommendation (1-5): 4
Reviewer Confidence (1-5): 4

Detailed Comments

This paper presents a tool to perform fact-checking from tweets.

The web-application is well-designed and the interface very intuitive. We are also gently guided by tooltips for a first use.

As described in the paper, there is a lot of advanced technologies in this application. However, I could observe how fact-checking is still a very difficult task, especially when it comes to fact-check numbers, the application seems completely lost and retrieved totally unrelated information during my tests.

Nonetheless, the application works and seems to have the ability to help fact-checking.

My main concern is that this is not open-source, consequently I could not check the checker... This application only checks from some selected sources chosen by its maker. This may introduce a bias in the fact-checking that I cannot evaluate as I could not find (or did I miss something?) the list of the sources used for fact-checking and the list of twitter accounts registered in the application. To sum up with questions: why should I trust this application? Who can we fact-check and with what data? If not open-source, the application should provide a lot of details on the data used.

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REVIEWER #3

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Reviewer's Scores

Appropriateness (1-5): 5
Clarity (1-5): 4
Originality / Innovativeness (1-5): 3
Soundness / Correctness (1-5): 4
Meaningful Comparison (1-5): 3
Thoroughness (1-5): 4
Impact of Ideas or Results (1-5): 3
Recommendation (1-5): 3
Reviewer Confidence (1-5): 3

Detailed Comments

This paper presents the ClaimPortal platform, which can be seen as an online service for fact-checking within political tweets.

The paper is divided in 5 sections following a somehow classical outline :

1. introduction
2. comparison with existing work
3. structure of the platform
4. comments on the platform UI
5. comments on analytics and vizualization features

While Section 1 gives a convincing presentation of the importance of fact-checking, especially since most people are connected to internet via their smartphone and heavily communicating via social networks, Section 2 is quite brief and does not make it that clear what novelty exactly ClaimPortal brings to the user except that it is tailored for twitter data. Section 3 gives a detailed presentation of the internal structure of the portal. The core of this application builds on solid web frameworks (e.g. python Flask, MySQL) and API-based interactions with external components (e.g. twitter data network, check-worthiness service). The workflow is presented in details (from tweet collecting to claim checking via data monitoring) :

- the system first collects tweets using twitter REST API,
- it then computes a check-worthiness score (Claim Spotter module),
- elasticsearch search indexes are then updated,
- claim type detection (using semantic frame-based representations) is applied (Claim Type Mapper module),
- finally fact similarity is checked against the inner fact database (Claim Matcher module).

Most of the steps above are done using the ClaimBuster API.

Section 4 illustrates the possibilities offered by the user interface through some examples (keyword / tag / type / ... search, sortings) and Section 5 give an example of data vizualization (same example as the one found on the online video tutorial).

This platform looks like a solid implementation work, its design is sound, but one can wonder whether the platform novelty does not mainly rely in the ClaimBuster API (which, if I am right, has already been published elsewhere) ?

That would have been very useful to have some case studies (uses of this platform) : for instance, by taking a concrete situation where a fake news is spread through twitter and spot using ClaimPortal.

Are there any limitations to your approach regarding the target domain ? Are you focusing on political news because this domain is one of the salient ones regarding fact checking ?

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