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## TABLE OF CONTENTS

<b>Revision History</b> .....	<b>2</b>
<b>Table of Contents</b> .....	<b>3</b>
<b>Abbreviations</b> .....	<b>4</b>
<b>Executive Summary</b> .....	<b>5</b>
<b>1. Introduction</b> .....	<b>6</b>
<b>2. End user environment</b> .....	<b>8</b>
2.1. Producing news: newsrooms, where the magic happens .....	8
2.1.1. <i>Newsroom roles</i> .....	8
2.1.2. <i>Newsroom workflow</i> .....	8
2.2. How Fandango’s End users work.....	9
2.2.1. <i>How it works at ANSA</i> .....	9
2.2.2. <i>Inside VRT’s newsroom</i> .....	10
2.2.3. <i>The case of Civio’s team</i> .....	10
2.3. How fact-checking works.....	11
2.3.1. <i>ANSA</i> .....	11
2.3.2. <i>VRT</i> .....	11
2.3.3. <i>Civio</i> .....	11
<b>3. Automating fake news detection and fact-checking</b> .....	<b>13</b>
3.1. Fake news and bias detection .....	13
3.2. Automated Fact-Checking .....	14
3.2.1. <i>Identifying claims</i> .....	15
3.2.2. <i>Verifying claims</i> .....	16
3.2.3. <i>The current state of automated fact-checking</i> .....	18
<b>4. User requirements</b> .....	<b>19</b>
4.1. User research.....	19
4.2. Distilling requirements from user research.....	19
4.3. Fandango scope.....	21
4.4. Key definitions .....	22
4.5. User stories.....	23
4.6. Non-functional requirements.....	26
<b>5. Conclusions</b> .....	<b>27</b>
<b>6. References</b> .....	<b>28</b>
<b>7. Annex: User research questionnaire</b> .....	<b>30</b>
7.1. Questionnaire .....	30
7.2. Interviewees .....	31
7.3. Answers .....	32

## ABBREVIATIONS

ABBREVIATION	DESCRIPTION
H2020	Horizon 2020
EC	European Commission
WP	Work Package
EU	European Union

## EXECUTIVE SUMMARY

This User Requirements document collects and analyzes the end users' needs and will be the basis of D2.4, which will define the technical work plan and system requirements necessary to fulfil the goals. In order to reach valid and practical conclusions, it explores the users' context (i.e. how a newsroom works, the importance of fake news), the scope of the problem (i.e. what are fake news, why are they difficult to detect or disprove), the available tools (i.e. which other tools exist or are under development, which aspects they cover, whether Fandango can leverage them), and the self-identified user needs based on interviews with the users themselves (i.e. what kind of tools would they like to have, how should they be in order to be useful). The overall objective is to determine how Fandango can contribute in the fight against fake news.

The first section of the document reflects the growing importance. And, in order to understand how Fandango can fit into journalistic processes, it analyzes the workflows, roles and structure of actual newsrooms, showing the diverse needs of end users, depending on the newsroom size and preferred formats.

The document then analyzes the most important tools and initiatives that are currently underway to stop the rise of fake news. They can be separated in two groups: content-agnostic ones that address the problem at an article level, relying on global automated language and metadata markers; and those that focus on concrete sentences and claims, verifying each one along the lines of traditional journalism fact-checking, often with significant manual effort from journalists. It's important to understand these other initiatives in order to not duplicate existing work and to offer users the most relevant and complete information.

Interviews with end users were conducted to establish what the most effective approach for Fandango should be. They show, to begin with, that we are dealing with a complex phenomenon (from the different definitions or faces of the fake news to the different forms of manifestation) that cannot be treated in a simplistic way, as black or white. In addition, users explain how debunking fake news has become a time-consuming work for journalism and that elements such as the publisher of a news item are critical when evaluating veracity. The interviewed journalists lack registers of reliable data and sources, as well as effective tools that allow them to quickly assess the reliability of news items or sources. In addition, they confirmed the importance of social media in the propagation of hoaxes: these channels work at an unprecedented speed and, therefore, increase the need for equally fast and simple detection and validation tools. Finally, journalists repeatedly stated that they are the ones who must have the final word on whether a news item is fake.

This document concludes detailing specific user stories to address the identified needs, thus specifying a tool that will help journalists assess the veracity of a content piece in different formats and make an informed decision. Non-functional requirements such as transparency and understandability of the provided signals are also addressed.

As a summary, the Fandango project will address the emergence of fake news and misinformation providing an on-line service (SaaS) that will support both content-agnostic misinformation scoring and detection, based on Big Data analysis techniques (ML models and Graph Analysis); and content-dependent data-driven verification, through open data and verified claims databases.

## 1. INTRODUCTION

Working out who to trust and who not to believe has always been necessary. The main difference in today's world is that technology and the Internet give us access to vast amounts of information, often more than we can ingest. Since truth is no longer dictated by media outlets acting as gatekeepers, but it is networked by peers, for every fact there is one or more rebuttals. All those claims and counterclaims may look identical online, confusing most people. In this bewildering maze of contradictory data, hoaxes spread quickly, in particular on social media, and spark angry backlashes from people who take what they read at face value.

Fake news has become a hot issue in Europe as well as worldwide, as their impact is worrying: a survey conducted by the Pew Research Centre [1] towards the end of last year found that 64% of U.S. adults said made-up news stories were causing confusion about the basic facts of current issues and events. In Europe, according to a study [2] by the Reuters Institute at Oxford University, "the level of Facebook interaction (defined as the total number of comments, shares, and reactions) generated by a small number of false news outlets matched or exceeded the one produced by the most popular news brands". Having a large number of people in a society who are misinformed is a significant handicap for the democratic process: democracy relies on people being informed about the issues so they can have a debate and make a decision.

The FANDANGO project stems from the idea that a lack of systematic knowledge and data transfer across organizations in the media space makes it hard to properly address the aggressive emergence of misinformation. Hence, we believe that using cross-sector Big Data management and analytics, along with effective interoperability schemes, will generate significant business and societal impacts. The overall aim of FANDANGO is to aggregate different types of news data, media sources, social media and open data, to help identify and detect fake news and contribute to provide verified information to media companies, civil society organisations, governmental institutions and European citizens.

Misinformation is a handicap for the media industry as well, as media outlets and news agencies have to navigate a more noisy and confusing environment which complicates data gathering, floods their fact-checking resources and reduces the impact and reach of their verified articles. Even worse, traditional media outlets are often actively targeted by those interested in spreading misinformation, in order to discredit them [3]. Trust in media is a critically important barometer when it comes to the spread of false and misleading news: in a society where citizens wholeheartedly trust and embrace mainstream journalism, these outlets can act as a bulwark against viral falsehoods. On the other hand, as trust in the media declines, citizens increasingly turn to a much wider collection of news sources, not all of which may perform as extensive vetting of their reporting. One of the Smart Objectives of FANDANGO aims to "enable media company to implement a long-term strategy to fight fake news and misinformation creating value by increasing their trust". To this end, the FANDANGO consortium includes three end users with diverse profiles - ANSA, the Italian News Agency; VRT, the Flemish public broadcasting network; and Civio, a non-profit investigative newsroom – which contribute, with their own perspectives, to better understand the media producers needs and better define the user requirements to address them. In terms of ambition, although at first it might seem nice to have a fully automated solution that would simply read an article and flag it as "true" or "false," the reality is much more difficult: "fake news" is never black and white, but more a hundred shades of grey. This is where Big Data analytics tools and technologies get involved in FANDANGO, providing a better understanding of the information context around news topic, by analysing them from different perspectives and assess statements being attributed

to the event, allowing us to make more informed decisions about the veracity of news. As stated in FANDANGO' Smart Objective SO2, FANDANGO will provide appropriate tools to characterise fake news: Machine Learning algorithms, able to take advantage of the Big Data context of FANDANGO, will score news with a *fakeness* indicator.

FANDANGO will evaluate the impact on media industries of Big Data Analytics technology adoption, and satisfaction of end users' needs, by carrying out three pilots in three separate scenarios –Climate, Immigration and European Context – where fake news can influence perception with respect to social and business actions. Such examples are: a) Fake news regarding climate data generate confusion towards the potential threats of climate changes [4]; b) Fake news regarding immigrants, where criminal events are immediately imputed to them, may shape racist beliefs in society [5]; c) Fake News on European Context – either by fake news published by online sites, or by hacking or misinformation–threaten European integration and may influence democratic processes and elections [6][7].

## 2. END USER ENVIRONMENT

In order to properly define the user requirements, it is important to understand the day-to-day processes and methodologies used by journalists and media organisations when producing and verifying news. For this reason, a brief description of how newsrooms traditionally work is included below.

### 2.1. PRODUCING NEWS: NEWSROOMS, WHERE THE MAGIC HAPPENS

According to the daily experiences of Fandango's media sector partners, which represent Fandango's end users, a newsroom is the place of a journalistic organisation where the staff responsible for the production of information works: from writing the script of a radio or television program, to the production of reports, articles, infographics and multimedia pieces. There are different kind of newsrooms depending on the product offered and the resources of the media group, and the way of working and organising the newsroom is not always the same. It's clear that TV, radio and newspaper present huge organisational differences. Still, all newsrooms have a chief editor and section chiefs. Section chiefs, however, have a different role depending on the kind of newsroom.

Classic newsrooms are organised by sections such as politics, culture, sports, etc. To coordinate the work of the entire newsroom, there are two levels of meetings: section meetings, to organise the issues to cover by any of the different teams, and operational newsroom meetings, carried out by the chief editor and representatives of the different sections to prioritise the topics that will lead the front page, or the order that news will be broadcasted. Prioritisation of issues is much more acute in the radio and television news programs -not to be confused with the news bulletins, which are those of a few minutes and which report the breaking news- and, above all, on the covers of the printed media. In printed newspapers, the meetings can be hold twice or three times per day to discuss the pieces of the next front page.

#### 2.1.1. NEWSROOM ROLES

As said, each newsroom decides its own organisation. And, consequently, what roles they need. Classic roles in journalism are: chief editor, responsible – even legally – of all published material; section chiefs, in charge of publishing information for a section; reporters - from junior to senior -, in charge of investigating issues and writing articles; and proof-readers, the old-school fact-checkers who also could corroborate the grammatical part of the information.

There could be other specialised roles in the team: photojournalist or video journalist, who can cover an issue mainly with pictures or video, or who can add value to any article with the visual part; data journalist, specialised in data analysis; visual or infographics designer, in charge of displaying the information; web developers, who control and organise newsroom's webpage, etc.; and producers, who contribute to arrange interviews and contacting people. They all work together in the article, along with the journalist leading and writing it, for the section chief to supervise and publish it within the deadline.

#### 2.1.2. NEWSROOM WORKFLOW

The workflow in a newsroom is organised and carried out by a team formed by different work roles; this workflow depends, especially, on the frequency of the publication, the number of people working on the team and the variety of the specialisation roles within the newsroom.



A regular day in a medium/large newsroom with daily publications will start with a section meeting where each of the journalist will present an idea to cover or develop in that day/week. This meeting is carried out formally once a week, even though conversations between journalists, chief editors, section chiefs and other team members are carried out daily. In this meeting, the section chief will assign an issue to cover to each journalist; this issue can be the one presented by the journalist himself or any other that the section chief thinks is necessary to cover.

When each journalist has a topic assigned, she/he starts with the investigation and contextualisation on the matter. Getting in touch with experts and people affected by the issue is the second step. However, in this process, other team members can play an important role, for example: the journalist may need to check some data about the matter but she doesn't know how to analyse large databases, so she asks a data journalist colleague for help; if the journalist needs to display the data visually in the article, she may ask the visual designer for help. If the journalist finds any complication during the investigation, she will update the section chief about it; the section chief is the one supervising all the work and the one in charge of the work being finished before the deadline. The reporter is the main responsible of fact-checking her information.

When the article is finished, the journalist usually gives it to the proof-reader. This role, however, has been disappearing during the last years and in most of the cases, this role is assumed - if at all - by the section chief.

## **2.2. HOW FANDANGO'S END USERS WORK**

### **2.2.1. HOW IT WORKS AT ANSA**

#### **Newsrooms**

ANSA has seven main Desks: Politics, Economy, National News, Foreign News, Entertainment, Sport, and the new central Newsroom (which reunites the old desks of Specialized Services, Internet, Photo and Video Services). Every desk is divided in many sections, each with its own chief. ANSA also has 20 regional offices, the biggest one in Milan with 25 journalists and reporters. Abroad, the agency has 70 Foreign offices or point of correspondence, with full desks in Brussels, New York and Beijing.

#### **How ANSA works**

ANSA is open 24 hours a day, seven days a week. Every Desk and section have shifts during the day. Journalists and reporters may also cover sections other than their own when the assigned holder is out on a mission, at a press conference or following a story. As CIVIO already outlined, the news flow is linear: a journalist receives hints and clues by phone or email, a press release by mail, or find them on social networks and writes the news - after doing the due checks. His immediate superior validates it and send it to the Desk Chief who checks it again, also proofreading it, before transmitting it to the subscribers (newspapers, Radio, TV and websites) or/and directly to the ANSA website readers.

#### **Morning and afternoon meetings**

Depending on what kind of news they cover (politics, economics, national news, foreign news, entertainment, science, health, environment, automotive, photo and video), every Desk opens around 7 to 9 a.m. and closes around 9 p.m. to midnight. The Night Desk works from Midnight to 7 a.m. Very early in the morning every Section Chief collects from his journalist and collaborators a list of events and possible stories to cover during the day just started and forwards it to Desk Chiefs. This is a dynamic list that can grow or shrink (actually, it almost never shrinks) in the following hours of work. Then at 10 a.m.

there is the Central Chiefs Meeting with the Editor in Chief, where the stories of the day are chosen. The Chiefs' Meeting is repeated around 4 p.m. to consolidate the list and to add or cut stories, depending on their consistency. Photo and video coverage is also decided during those two meetings. The Editor in Chief always decides the "line" of the day, i.e. what story deserves more attention (or not) and intervenes only whenever there are major concerns and doubts about a single story.

### 2.2.2. INSIDE VRT'S NEWSROOM

VRT, as a public broadcaster, has the obligation to inform all Dutch-speaking Belgian citizens in a neutral, timely and correct way. Because of the importance of this mission, VRT NWS, VRT's newsroom, is by far the largest editorial department of the company. It is paramount that the news is factually correct and free from bias.

#### Organisation

VRT NWS is led by the Director Of Information. She directs five editors in chief who are responsible for five broadcast channels: 1) the daily news program on tv, 2) the other information and current affairs programs on tv, 3) radio, 4) online and 5) sports.

Across these channels, content from several topic-based editorial teams is broadcast. Those topics are: socio-economic news, politics, judicial news, science, cultural news, foreign affairs, sports and general news. The editorial teams provide content for the different channels. Some news items will be prepared for both radio and tv, possibly a current affairs program, and almost always for the website and apps. The teams are headed by an editor, who'll lead several journalists, reporters and other staff members depending on the size of the team and importance of the topic.

#### News flow

The newsroom, the editors and their teams work in much the same way as described earlier: ingest news, decide on which items to cover, research, create the item for different channels, publish/broadcast. They work in shifts to provide continuity, including a night shift, nightly news programs on radio, weekends, etc.

### 2.2.3. THE CASE OF CIVIO'S TEAM

Civio's newsroom is formed by three ITs –they design our visualisations and develop our websites and apps, and help us extracting, cleaning and analysing data– and four journalists. One of whom, Javier, is the manager of external communications, but collaborates with the production of information when is required. All publications are supervised by our managing editor, Eva, who is one of the journalists and who is also involved in publishing articles.

We have annual meetings where we prioritise the areas we want to cover during the year. And, for the daily work, we have weekly meetings where we decide the issues to cover. In certain cases where the information volume is too large, such as our investigation about [Big Pharma's payments to Spanish doctors \[8\]](#), the whole team works together in the same article. This is replicated when the articles are finished; the journalist work and quality control of the information is checked by peer reviews so the articles are fact-checked by the rest of the team.

## 2.3. HOW FACT-CHECKING WORKS

### 2.3.1. ANSA

ANSA is obliged to keep a very high standard because our users (Newspapers, Radio, Tv, Websites and ultimately our Internet readers) literarily depend on us for receiving truthful accounts of what happens every day in Italy and in the world. Basically, every journalist is a fact-checker and double checks what he or she writes before sending the story to their Desk. If there is anything wrong or simply not good enough, the story undergoes an extra check or, if necessary, even a complete rewriting before being transmitted. Fact-checking is usually done starting from the assessed reliability of the source and by consulting our news database, reliable and official Internet sites, or going directly to the sources. Usually something that does not “sound good” or “sounds too good to be true”, is most likely a fake news.

### 2.3.2. VRT

Because of the way VRT NWS is organised and our mission to provide citizens with factually correct, neutral news, every journalist on any level is required to check and double check their news items. It is embedded in the daily work processes and it is everyone’s responsibility.

Naturally there are some areas in which journalists developed more expertise in fact-checking and dealing with fake news. The foreign affairs editorial team has to process several possibly fake videos and images per day, usually related to wars and other conflicts. The politics editorial team has to fact-check claims made by foreign and domestic politicians, and has to provide correct information or context in a timely fashion.

These journalists and editors each developed particular, often crude ways of fact-checking, using free online tools and a lot of manual processing. The knowledge is generally contained within the team and the results not often shared across the newsroom, because of time constraints.

While these journalists would benefit greatly from automating work flows and tools that assist their daily struggle, the largest opportunity (or threat) lies with their colleagues who are not as familiar with fact-checking as they are. By lack of experience or exposure and despite it being required, fact-checking is not a second nature for all newsroom members. Sometimes incorrect information slips through the cracks or is claims are not automatically challenged and bluntly published. Assistance from software that simplifies that process, would ensure a greater portion of the news is checked before it is published.

### 2.3.3. CIVIO

Once we have finished an article, we do not only supervise the grammatical part, we also fact-check all the information in the article. For this purpose, we corroborate each of the facts displayed by checking the source of the information up to three times, by different people of the team. If the source is a database, we analyse the data from scratch; if the source is a person, we check the audio recording, etc. This is a relatively easy task because the journalist who wrote the article facilitates this fact-check to their peers, however, the process gets more complicated when the information comes from outside our newsroom. In these cases, the steps we take are the following:

1. Check the webpage or webpages where the information comes from: we usually trust any information that comes from a public institution webpage or a trusted newsroom (e.g. The New York Times, The Washington Post, BBC, The Guardian). Usually, these big newsrooms also have their fact-checking team, so it is more difficult to find a fake new among their articles.

2. If the webpage that publishes the information is none of the above, check the webpage's information, team, description, etc. and look for some other news, you may find other articles that you already know are fake news.
3. Check the quotes and look for the experts interviewed for the article. A simple search in Google can tell you if the people interviewed are real experts -or even real people.
4. Check the images included in the information. You can do a reverse research of the pictures by uploading the image to Google; it will let you know if that picture has been used for any other news previously.
5. If you cannot corroborate the information they give to you and you don't trust the source, be careful.

### 3. AUTOMATING FAKE NEWS DETECTION AND FACT-CHECKING

As part of the user requirement gathering phase, we spent time to explore existing initiatives, tools and techniques, with a particular focus on those close to being deployed in the market. Understanding the state of the art in terms of machine learning and Big Data applied to the issue of misinformation is crucial to ensure that the user requirements leading FANDANGO development are feasible and will produce reliable results.

#### 3.1. FAKE NEWS AND BIAS DETECTION

Fake news detection is defined as the prediction of the chances of a particular news article (news report, editorial, expose, etc.) being intentionally deceptive. Establishing the reliability of information online is a daunting but critical challenge, often even for humans. In order to automate this process, two main methods have emerged:

- **Linguistic Approaches** in which the content of deceptive messages is extracted and analysed to associate language patterns with deception.
- **Network Approaches** in which network information, such as message metadata or structured knowledge network queries can be harnessed to provide aggregate deception measures.

Both forms typically incorporate machine-learning techniques for training classifiers to suit the analysis, and **they work at the article level, without trying to understand and verify each particular sentence.** FANDANGO's Work Package 4 does explicitly include these techniques, among others. For an initial review of these methods, see [9].

As an example of a linguistic approach, Horne and Adali, in their 2017 study [10], analysed three small datasets ranging from a couple of hundred to a few thousand articles from a couple of dozen sources, comparing real news vs. fake news vs. satire, and found that the latter two have a lot in common across a number of dimensions. They found that fake news pack a lot of information in the title (as the focus is on users who do not read beyond the title), and use shorter, simpler, and repetitive content in the body (as writing fake information takes a lot of effort). Thus, they argued that the title and the body should be analysed separately. In their follow-up work [11], they created a large-scale dataset covering 136000 articles from 92 sources from opensources.com, which they characterized, based on 130 features from seven categories: structural, sentiment, engagement, topic-dependent, complexity, bias, and morality.

Similarly, [12] follows this line. According to the authors, their study reveals key features of false news web sites that might be less visible to human fact checkers but can tab a bad news source. Among the features, they mention specific patterns of so-called "function words" that give a more spoken feel to a news article, as opposed to the far more common "content words." "Mainstream news editors clamp down fast and hard on too many function words, but fake news sites may not be edited at all", they say.

Some of these methods were tested during the Fake News Challenge [13], a competition to foster development of tools to help human fact checkers using machine learning and natural language processing. But we didn't find them deployed or under development in actual newsrooms, which may suggest a potential opportunity for FANDANGO.

## 3.2. AUTOMATED FACT-CHECKING

By "automated fact-checking" (AFC), we mean the development of automated tools and technologies to assist journalists in vetting and verifying factual statements. Note that, unlike the techniques described in the previous section to detect fake news, **automated fact-checking works at the level of a particular statement or claim.**

According to Lucas Graves, senior research fellow at Reuters Institute and author of [14], automated fact-checking initiatives and research generally focus on one or more of three overlapping objectives:

*to spot false or questionable claims circulating online and in other media; to authoritatively verify claims or stories that are in doubt, or to facilitate their verification by journalists and members of the public; and to deliver corrections instantaneously, across different media, to audiences exposed to misinformation. End-to-end systems aim to address all three elements – identification, verification, and correction.*

In 2015, Hassan et al. [15] define the "Holy Grail" of automated fact-checking as a computer-based system that is:

- **Fully automated:** It checks facts without human intervention. It takes as input the video/audio signals and texts of a political discourse and returns factual claims and a truthiness rating for each claim.
- **Instant:** It immediately reaches conclusions and returns results after claims are made, without noticeable delays.
- **Accurate:** It is equally or more accurate than any human fact-checker.
- **Accountable:** It self-documents its data sources and analysis, and makes the process of each fact-check transparent. This process can then be independently verified, critiqued, improved, and even extended to other situations.

As this report states,

*such a system mandates many complex steps—extracting natural language sentences from textual/audio sources; separating factual claims from opinions, beliefs, hyperboles, questions, and so on; detecting topics of factual claims and discerning which are the "check-worthy" claims; assessing the veracity of such claims, which itself requires collecting information and data, analysing claims, matching claims with evidence, and presenting conclusions and explanations.*

In 2015, the most important computational hurdles to solve, according to this paper, were:

- **Finding claims to check**, including – potentially - going from raw audio/video signals to natural language, and extracting contextual information such as speaker, time, and occasion. Once a transcript is available, claims need to be extracted from the text, which depends on determining whether a claim is "checkable" and "check-worthy".
- **Getting data to check claims**, where data refers both to 1) claims already checked by various organizations; 2) unstructured, semi-structured and structured data sources that provide raw data useful for checking claims, e.g., voting records, government budgets or crime records. For a given claim, relevant datasets (or even particular data items) need to be matched, and their

quality, completeness, applicability and freshness evaluated, so the most valuable ones are surfaced.

- **Checking claims**, where challenges are how to remove (sometimes intentional) vagueness, how to spot cherry-picking of data (beyond correctness) or how to evaluate and how to come up with convincing counterarguments using data.
- **Monitoring and anticipating claims**. Given evolving data, we can monitor when a claim turns false/true. Can we anticipate what claims may be made soon? That way, we can plan ahead and be proactive.

In 2017, the authors updated their input [16] with an optimistic statement:

*the Holy Grail is no longer a distant dream [...] recent advances with the creation of a global database of structured fact-checks and fact-checking tools such as ClaimBuster and iCheck have laid a groundwork for additional advances in the next few years.*

However, our evaluation of the field shows that a fully-automated system is beyond the current state of the art, and systems under development in the industry still rely on humans at critical points of the process.

Graves' 2018 report for Reuters Institute gave the most comprehensive assessment to date about automated fact-checking initiatives and research. Depending on their purpose/focus, the report classifies current initiatives as follows:

### 3.2.1. IDENTIFYING CLAIMS

According to Graves's report, the greatest success in AFC research has come in the area of extracting discrete factual claims from a text such as a speech or an article, combining natural language processing and machine learning to identify and prioritise claims to be checked. Examples:

- **ClaimBuster**. An AFC platform developed at the University of Texas-Arlington trained on about 20,000 sentences from past US presidential debates, classified by paid human coders, to learn to distinguish 'check-worthy' factual claims from opinions and statements.

- **Tech & Check Alerts.** A tool deployed by the Duke Reporters Lab that uses ClaimBuster to deliver potentially interesting claims to fact-checkers at PolitiFact, FactCheck.org, the Washington Post, and the Associated Press.
- **Chequeabot.** A system developed by Chequeado, a fact-checking non-profit based in Buenos Aires. The programme monitors presidential speeches and about 30 media outlets across Argentina to find claims to check. Constant feedback from the fact-checkers trains the algorithm to focus on statements that are both 'checkable' and interesting.



### 3.2.2. VERIFYING CLAIMS

Many claims don't lend themselves to simple true-or-false verdict. They often require the ability to understand context, exercise judgement, and synthesise evidence from multiple sources. Graves points out to two primary approaches to automatic verification in this area: matching statements to previous fact-checks or consulting authoritative sources.

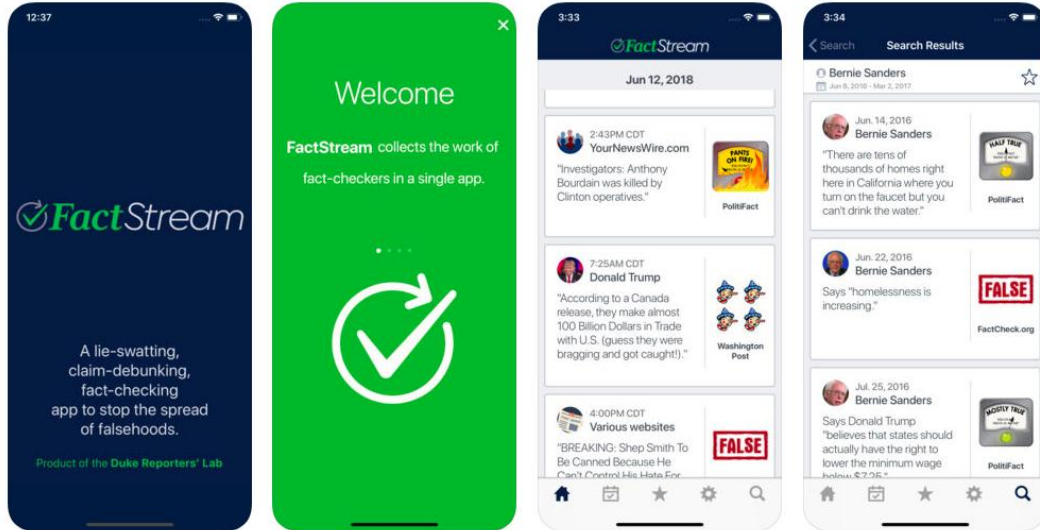
#### Checking Against Previous Fact Checks

Fact-Checkers and data scientists agree that the most effective approach to automatic verification today is to match statements against a library of claims already checked by one or more fact-checking organizations. Examples:

- Full Fact's in-house AFC platform constantly monitors an array of media outlets, as well as Prime Minister's Questions, for claims the group has already checked.
- The Duke Reporters Lab expects to test a system within months which will match statements chosen by ClaimBuster against the libraries of FactCheck.org, PolitiFact, and other fact-checkers who use Share the Facts, a common tagging system that now covers more than 10,000 fact-checks



- **FactStream** offers live, 'second- screen' fact-checking of major political events via a mobile app. Fact-checkers use the platform to respond to dubious claims in real time, issuing either a capsule summary from a previous fact-check, or, for new claims, a 'quick take' adding context.

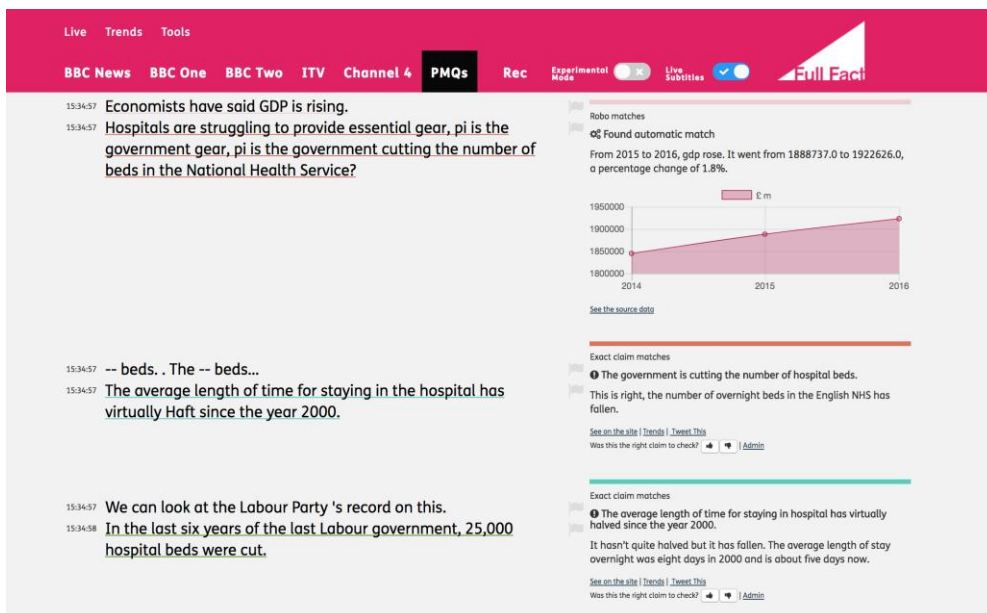


**Checking Against an Authoritative Source**

It requires that, having identified a discrete claim to check, the AFC system can recognise the kind of data called for, and that the data are available from an authoritative source in a form the software can use. According to Reuters, for AI researchers the central problem is to parse statements in terms that make sense to a database. Graves' analysis describes the state-of-the-art in this matter as follows:

- UK's **Full Fact** is developing purpose-built AFC modules designed to match claims about specific public statistics, such as the unemployment or inflation rate, against the official figures, and has campaigned to make more official statistics available as structured data that are friendlier to developers.

Full Fact's **Live** enriches real-time transcripts with references to claims that Full Fact has already investigated. An exact match automatically pulls up the relevant conclusion; in other cases, Live tries to display contextual information such as official statistics.



A separate Full Fact tool, Trends, shows journalists the propagation of individual falsehoods. According to Graves, the purpose is to show fact-checkers whether their efforts have made a difference and help them to target their interventions more strategically.

- **ClaimBuster** includes a module, still in the early stages of development, which reformulates claims as a question for Wolfram Alpha, a general-interest structured knowledge base. This widens the set of available facts, but in practice only a tiny fraction of statements harvested from real political discourse can be tested this way.

### 3.2.3. THE CURRENT STATE OF AUTOMATED FACT-CHECKING

Because of its relevance for this deliverable, we reproduce Graves' report conclusions:

*The potential for automated responses to online misinformation that work at scale and don't require human supervision remains sharply limited today. Researchers are exploring both more and less structured approaches to automated verification, reflecting wider divisions in the AI landscape. Despite progress, AFC techniques which emulate humans in comprehending the elements of a claim and checking them against authoritative references are constrained by both the current science and by a lack of data; researchers suggest one path forward is to build up recognition of different kinds of claims in a gradual and ad hoc way. Another family of techniques assesses the quality of information based on a complex array of network signals, making judgements about a message or its source in ways that may be opaque to humans. It is unclear how effective various unstructured approaches will prove in responding to different kinds of misinformation, for instance, false claims from political elites as opposed to viral online rumours. These approaches may also be vulnerable to mistakes from reputable sources, and raise difficult questions about protecting open and diverse political expression online.*

## 4. USER REQUIREMENTS

### 4.1. USER RESEARCH

In order to gather insights about the environment in which Fandango will be used, we conducted a series of contextual interviews.

A contextual inquiry or contextual interview is a user research method that typically consists of a mix between a traditional user interview and observations of how the research participants use a product or service in the relevant context. It's a semi-structured interview method to obtain information about the context of use, where participants are first asked a set of standard questions and then observed and questioned while they work in their own environments [17][18].

In short: it's a fairly informal interview at the journalist desk, or wherever he or she works. They explained what fake news they come across, what they do with it and how they feel about it.

Advantages:

- Complete: it reveals information that users might not be aware of.
- Veracity: observing users in their natural environment leads to very accurate information.
- Detail: it produces highly detailed information as opposed to many other qualitative methods that produce more high-level information.
- Flexibility: it can be carried out wherever a user operates.

Disadvantages:

- A bit more time and resource intensive.
- Qualitative, not statistically relevant.

The questionnaire used, together with the list of users interviewed, as well as their detailed responses, is available in the Annex.

### 4.2. DISTILLING REQUIREMENTS FROM USER RESEARCH

The user research described in section 3 gives an overview of the most pressing issues journalists at ANSA, VRT and Civio face when dealing with fake news. Some similarities in the research are noteworthy:

- *Fake news* as a term is way **too broad**. We should not use it as a label, i.e. categorize a piece of information simply as *fake news*. More specific are preferred, e.g. *propaganda*, *misinformation*.
- Our journalists do, however, acknowledge that it is a good and **commonly recognized term** to use in communications about our project.
- Our journalists unanimously say they want to make the **final decision** about the trustworthiness of information. That call should not be made by software. There are too many nuances.
- The journalists need the most help with the **verification process** itself. It is difficult to find the right data, time consuming to find references, assess sources/publishers, etc. They would like specialized, user friendly tools to assist them in that process.

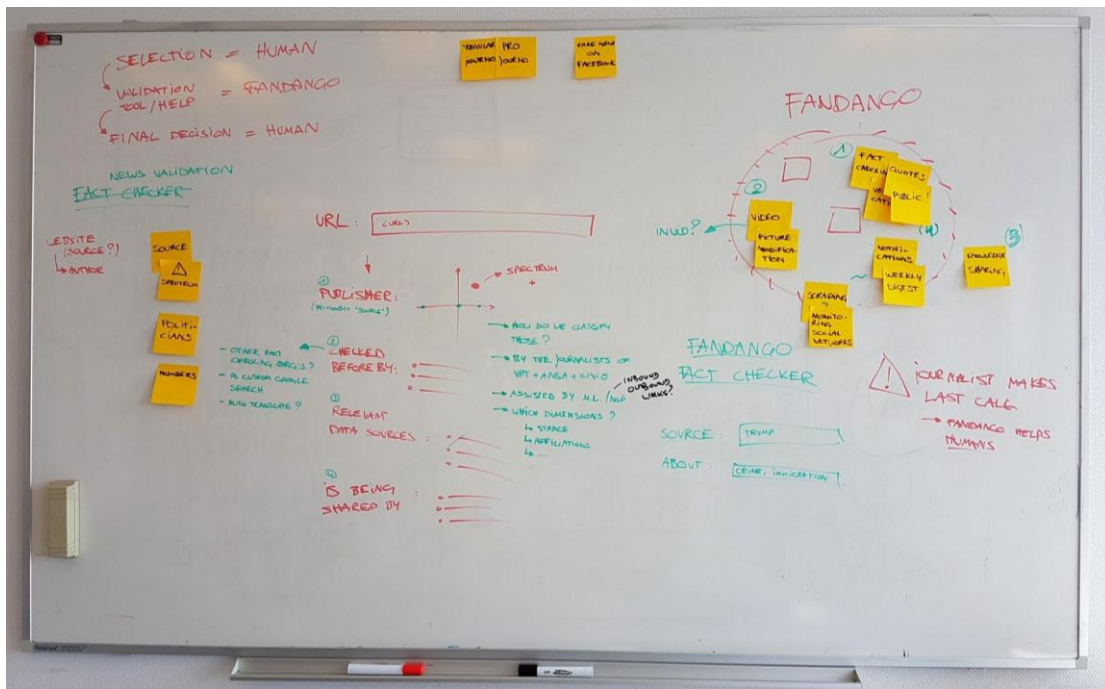
There are, however, some differences among end users:

- Civio journalists are very much geared towards news verification (text, numbers, statements, research). VRT journalists as well, but given that they primarily work for radio and tv, they need more assistance with photos and video (and possibly audio). With ANSA, it's a bit of both.
- Regarding functionality to alert about fake news in social media, VRT and Civio's journalists wouldn't benefit from it very much: which fake news is relevant to them greatly depends on their area of expertise, and they seem to have an excellent eye for it. Hence, they have no need for an extra alert system or notifications about "trending" fake news.

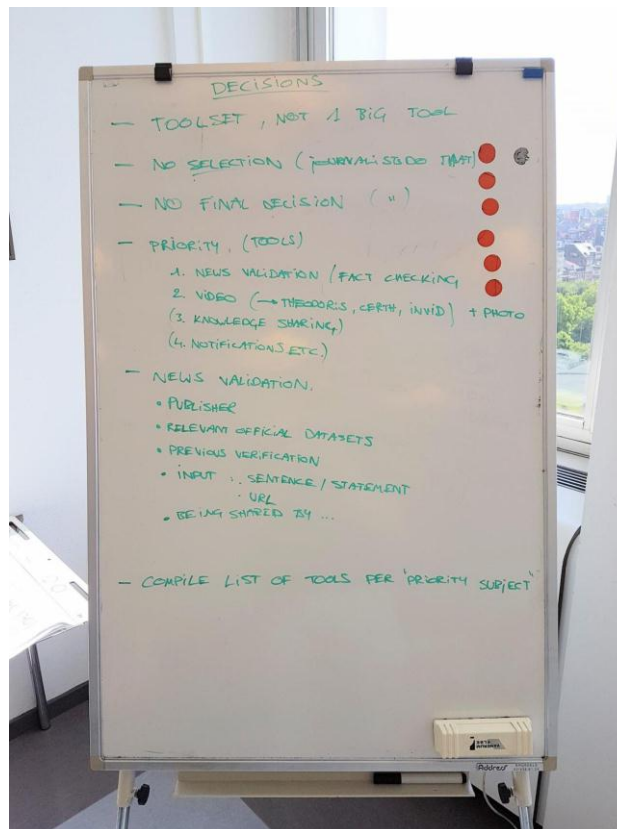
ANSA's journalists, however, do. They're a news agency, which is a different context. Understandably, they would benefit from alerts about trending fake news, to make sure nothing slips through the cracks and their offer remains as qualitative as ever.

- A weekly newsletter with some sort of digest or overview of the week's debunked news stories could come in handy for all journalists, even if it's only to raise awareness with their colleagues. This is something that could be considered for the Dissemination Strategy, described in a separate deliverable.
- At VRT, it was noted a few times that the sharing of knowledge is also important, as a lot of it currently stays within the own editorial teams. There were some mentions about community building, but not so much at ANSA and Civio. We agreed that it could be an added value, but not a priority, as it's not in the original scope of the project.

A meeting was held in Brussels on May 28<sup>th</sup> with representatives of the three end user partners -ANSA, VRT and Civio-, in order to consolidate the diverse feedback gathered from the interviews and agree on a first draft of Fandango's core functionality.



How does Fandango fit in a journalistic workflow? First discussions.



Agreeing on Fandango design principles.

### 4.3. FANDANGO SCOPE

During the Brussels meeting, some agreements were made that helped define the scope and shape of Fandango from the end user perspective, based on the user questionnaires and the evaluation of the state of the art in the field:

1. **Fandango should never make a final decision about the trustworthiness of information.** Instead, it should help the journalists in doing that, i.e. it should return enough answers for the journalists to base their decision on. This is advisable for legal issues but also because journalists want to have the ultimate responsibility of judging a news fake or not. Fandango will offer all the relevant elements to this end.
2. **Fandango should expose its functionality online easily (SaaS),** without the need to install complex software solutions. We started out with the ambition to build one solution that could independently interpret a piece of information and decide if it is fake or not. But we now know that journalists need to be involved, so we must ensure that Fandango functionality can be integrated in their workflows. Given the diverse technical skills and day-to-day needs, this may imply e.g. offering the photo/video verification functionality through a browser plugin, dedicated URL or programmable API.
3. In terms of roles, **Fandango should be applicable to both authors and editors.** First, the author is responsible for including or not certain claims in a news piece, and is the first barrier against the propagation of fake news. Secondly, the editor is responsible for reviewing the news produced by journalists, which is a very time-consuming task where tools that detect potential mistakes by authors can be particularly effective.

4. **Fake news cannot be detected by one single indicator.** Instead, a diversity of signals and indicators need to be considered by the user. These signals work at two different levels: at the article level, content-agnostic scoring based on Big Data techniques (i.e. machine learning models and graph analysis), including language and video/pictures automatic analysis. At a more granular level, content-dependent signals support the data verification process, using open data (i.e. related datasets) and databases of verified claims.
5. Fandango assisting with the **detection of trending fake news needs to be evaluated later on.** Although a potentially useful thing to do, and relevant to one of the partners, it was agreed that this was less of a priority. News verification is Fandango's core and complex enough to focus on at the start.

A first draft of user requirements was shared with the technical partners, and the initial user stories were discussed and refined in two consortium meetings, held in Dublin (July 2018) and Naples (October 2018).

## 4.4. KEY DEFINITIONS

In order to define the user stories and requirements without ambiguity, it is helpful to agree on basic definitions for the most important terms being employed:

- **Article:** all the information contained in a particular URL and published or distributed as a journalistic piece. The piece will often include a combination of multimedia items in different formats, i.e. video, picture and text. Some of FANDANGO's analysis will be done at the article level. Not all articles are in scope for Fandango: we exclude opinion pieces, for example, or satirical content.
- **Claim:** A fragment of an article text that contains a self-contained statement. Some claims can be verified and debunked, such as a stated fact about numbers or locations, or on-the-record quotes by third parties. Some claims, however, cannot be verified, as they are opinions, off-the-record statements or facts where no official sources exist.
- **Publisher:** The brand publishing and distributing the article. It can be a media outlet (i.e. an outlet such as a newspaper -either online or print-based-, a news agency, a non-profit newsroom or radio/TV or non-media-based (i.e. Twitter or Facebook accounts, or Youtube channels without clear links to traditional media). In some cases, the original publisher may be unknown, as the article may circulate in social media (e.g. WhatsApp) without clear attribution.
- **Author:** the creator of the article. In traditional media, the author is stated in the article signature.
- **Fake news:** an article than contain false claims or manipulated media elements, with misinformation purposes.
- **Fact:** a thing that is known to be consistent with objective reality and can be proven to be true with evidence.
- **Data:** Factual information, organized for analysis or used to reason or make decisions. May be numerical (e.g. statistics, measurements) or textual (e.g. transcripts, quotes, knowledge graphs).
- **Dataset:** A collection of related data items.
- **Fact-checking organisations:** media institutions who regularly monitor news published in media outlets and social media in order to detect and debunk misinformation. They may be

independent (e.g. Full Fact) or be a dedicated section inside a bigger media outlet (e.g. Les Décodeurs, part of Le Monde).

## 4.5. USER STORIES

### Integrated site

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>see in one place all the information provided by Fandango about a news item</i>
<b>So that</b>	<i>I can decide quickly based on the different signals.</i>

Given the URL of a news item, Fandango should display the different indicators / suggestions, described in the other user stories, so that the journalist can see all the relevant data in one place.

The web site should be user-friendly and easily understandable.

Most importantly, the indicators offered by Fandango should be justified, i.e. not a black box, so that the journalist can be confident on the system suggestions and double-check its reasons.

### Search for data sources relevant to statements

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>receive a list of relevant sources regarding a claim or statement</i>
<b>So that</b>	<i>I can verify the data in the article quickly</i>

Fandango should determine which official dataset (e.g. from UN/EU/national statistics agencies) would be most helpful for the journalist doing the verification. Pointing the journalist in the right direction already saves them a lot of time.

At a later stage, Fandango could try to visualize the actual data points related to the particular claim.

### What is the stance (language model) of the text content?

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>analyze the language of a news item</i>
<b>So that</b>	<i>I can detect biased and fake content</i>

Fandango would train a machine learning model to consider language features of the provided news item such as the use of loaded adjectives, faulty punctuation or certain words. It would then provide the user a trustworthiness estimate, as well as an explanation of the given estimate.

### Related articles

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>see articles related to the one given, and their estimated trustworthiness</i>
<b>So that</b>	<i>I can see how potential fake items are propagating, and which publishers are distributing the information.</i>

For a given URL, Fandango should display similar news items that are available in the Fandango repository, together with their assessed trustworthiness, calculated as they were ingested into the system.

#### Who is the publisher?

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>know whether the publisher of a news item is related to fake news in the past</i>
<b>So that</b>	<i>I can evaluate his/her trustworthiness</i>

Note: “publisher” is the outlet, news site or channel that makes the news item available online. We distinguish it from “author”, the creator of a news item (see below). We avoid the use of the term “source” to avoid confusion, as it’s common in the journalism sector to refer to the person that provides data or information to a journalist.

Assessing the quality of the publisher is a critical step for the validation of a news item. Hence, Fandango should evaluate the past history of the news publisher, as well as its relations to other good/bad actors in the network, in order to assign a trustworthiness value to the publisher. In terms of relations, it may look at things like inbound-outbound links, followers in social media, retweets, affiliations or language used in past articles.

The resulting indicator would be numeric, not a binary classification (fake/not fake), in order to better capture the complexity and uncertainty of the real environment. And Fandango should explain the user how the indicator was determined (i.e. which past fake items or relevant relations were considered).

#### Who is the author of a news item?

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>know whether the author of a news item is related to fake news creators</i>
<b>So that</b>	<i>I can evaluate his/her trustworthiness</i>

As with the publisher above, assessing the quality of the author is a critical step for the validation of a news item. Hence, Fandango should evaluate the past history of the author, as well as its relations to other good/bad actors in the network, in order to assign a trustworthiness value to it. It may look at things like which publishers distribute the author’s work, followers in social media, affiliations or language used in past articles.



The resulting indicator would be numeric, not a binary classification (fake/not fake), in order to better capture the complexity and uncertainty of the real environment. And Fandango should explain the user how the indicator was determined (i.e. which past fake items or relevant relations were considered).

#### Is the photo/video new? Has it been tampered with?

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>know if a photo/video has been published before in a different context and whether it has been tampered with</i>
<b>So that</b>	<i>I can detect fake audiovisual content.</i>

Fandango should alert users when a photo or video has been manipulated. For example, an image may have been superimposed, or an object in the original image deleted.

Fandango may also alert the user when a true image is being used outside its original context, e.g. a photo about immigrants in Greece may be used to spread misinformation about immigration in Spain.

#### Third-party fact-checks

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>find analysis (fact-checks) of a claim already done by reputed third-parties</i>
<b>So that</b>	<i>I avoid repeating work done by other professional journalists</i>

Given a statement/claim, Fandango should check it against its internal database of fact-checking articles performed by reputable journalistic organisations (e.g. Politifact, Snopes, Pagella Politica) and suggest one that verify the given claim (or a similar one), in order to save time and provide guidance.

Fandango would not assert that the given claim is true or false based on the third-party verification, it would just provide it to the user for her to evaluate.

In order to build the fact-checking database, Fandango could leverage growing standards such as ClaimReview, supported by Google, Bing and important journalistic organisations.

#### Nice to have: What is the timeline of diffusion

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>know when and where a fake news article originated, and how and by whom was propagated</i>
<b>So that</b>	<i>I can better understand the fake news ecosystem, as well as the techniques used by malicious actors to achieve maximum impact.</i>

Although potentially useful, analysing propagation across social media networks may be outside of the scope of Fandango, and may present significant legal and technical issues regarding data access.

#### Nice to have: Automatic alerts of Fake News

<b>As a</b>	<i>journalist</i>
<b>I want to</b>	<i>receive an alert when a fake news article trends</i>
<b>So that</b>	<i>I can verify it immediately.</i>

Fandango could monitor the articles it ingests into its database and/or social media networks, in order to detect suspicious trending news items. It could then alert users (journalists) in real time and/or via periodic newsletters, providing data such as its author, first appearance or distributors.

This would be particularly useful to journalists working for news agencies or in 'breaking news' sections, but it was not a need for some of the end users. Hence, it was decided to make it a priority.

## 4.6. NON-FUNCTIONAL REQUIREMENTS

Beyond technical features, it's important to record some of the user needs regarding the general use of the application.

Users must be able to understand how the tool works in order to draw correct conclusions about the reliability of a content piece. Although the analysis performed by the application are complex, this complexity must be transparent and communicated clearly and explicitly, that is, the results of the tool must be both rigorous and explainable.

For this reason, during technical development, clear descriptions of the responses of each tool component must be added to a glossary accessible by users in the platform. Some of the tool responses may be binary (e.g. a picture has been used in the past in other articles), but others will include degrees of reliability, which should be explained. The descriptions will depend on the methodology used by each component, but should include the definition of concepts such as what do we mean with "manipulated picture"? Are there different degrees of manipulation? If previous articles by the same publisher / author are used to assess veracity, which ones were they? Which language features were considered when suspicious?

## 5. CONCLUSIONS

All the users interviewed while preparing these user requirements agreed that journalists need tools that can help them analyze the veracity of news, not only because of the growth of fake news and its impact on society, but also because verification and fact-checking are expensive and time-consuming processes, in a demanding business environment where media outlets have limited resources. Our research indicates a clear need for simple and fast tools that assist journalistic verification work. But, ultimately, it is they -journalists- who must decide whether a story is false or not. To do so, they need to have all the information available.

The veracity or fakeness of a news story is too often not a simple question that can be answered with a binary classification, black or white, true or fake. Proof of this is the variability of the definition of fake news in their responses, which shows that misinformation also has many forms: false statements, out-of-context media, photoshopped images, partial analysis that distort reality, biased language that pushes a particular interpretation of an event... Additionally, false news are often composed of several claims and media items, and cannot be evaluated as a single piece; it is necessary to consider how to evaluate each of its components. Thus, the analysis of fake news needs to consider these nuances, and help turn this complexity into simpler signals that help journalists apply their judgment in an informed and transparent manner.

As we speak, a growing number of initiatives are arising from media outlets and independent organizations that try to solve the misinformation problem, e.g. having journalists analyze manually particular statements, monitoring their spread in social media or building tools for journalists to verify certain types of content, such as images. It is important, therefore, to take advantage of all that good work (e.g. tagging an article if a third-party fact-checker has already checked its veracity) and use technology to group different forms of verification, offering all the necessary information to evaluate the fakeness of a news item in a single tool.

Hence, in order to be useful and effective, Fandango needs to provide different types of signals about a news article or media item. These indicators must be rigorous, transparent and understandable by journalists, so they can trust the tool, and can be grouped in two big categories. First, automated content-agnostic analysis, based on Big Data and machine learning techniques, to evaluate the article language (e.g. use of biased terms), its metadata (e.g. graph analysis of the publisher and its relations) and whether its media content has been manipulated. And second, an analysis at the claim level, using official data and third-party verifications to assess the factual veracity of the statements.

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## 7. ANNEX: USER RESEARCH QUESTIONNAIRE

### 7.1. QUESTIONNAIRE

#### Classification and definition

**Q1. What do you classify as "fake news"?** It's a broad term. (How) do our journalists distinguish between its different forms? Do they use a formal classification in their newsroom? Example: <https://eavi.eu/beyond-fake-news-10-types-misleading-info>

**Q2. What types of fake news are the most difficult to deal with?** What type should we prioritise for? Examples: fact vs. opinion, selective reporting, framing.

#### Formats

**Q3. What format of fake news is the hardest to verify?** What format should we prioritise for? Examples: text, data and numbers, studies, photo, video.

#### Workload

**Q4. How much time does fake news verification take up in your average work day?** Or work week. What is the impact and the size of the problem for the journalist? How many times a day/week would they use Fandango? This has implications on UI, accessibility and learning curve.

**Q5. How many possible fake news items are you not able to handle on an average day? How much is left on the table?** How big is the problem? What improvements can Fandango deliver?

**Q6. How fast do you detect fake news that's "trending"?** Through other sources or colleagues? By word of mouth? Via emails from militant readers? Do we need to provide real-time checking and notifications? Or is that overkill?

**Q7. How many of those "trending" fake news items do you feel you miss? Or see too late? Or would like to see sooner?** Again, should we make a crawler and provide notifications?

**Q8. How many times a week do you look for older (fake) news items? Items that have already been verified or debunked, to use as a reference or otherwise?** Should we make a repository of fake news?

#### Existing tools

**Q9. Which tools are you already using?** Gives an overview of existing tools on which Fandango can improve. Examples: special websites, browser plugins (for reverse image searches, Twitter source verification, etc.), Slack or other collaborative platforms

**Q10. Are those tools sufficient for now? Why (not)?** Which improvements can be done? What are the most burning issues/annoyances with the existing tools?

**Q11. Do you or any of your colleagues use advanced tools to verify fake news, see trends or dive deeper into the matter?** E.g. programming languages used in data science like Python, R, Spark or others? I.e. should we open up our data for that use?

## Sources

**Q12. What's most important: the news item itself or the source?** How much influence does one have over the other? Where do they focus on and how can Fandango help with that?

**Q13. How much time do you spend on average to find the right sources for verifying information?** What is the effort exactly? Are they easy to use? What can we learn from that journey?

**Q14. Do you use some sort of registry of trustworthy sources? Do you keep your own?** Which shortcuts do they use? Which own systems did they put in place? Do they use bookmarks, spreadsheets, an online registry?

**Q15. Which social media suffer the most from fake news? Which one is most impacted or does the most damage?** Especially after Facebook's (near) ban of all pages, is it still a big issue there? Is Twitter more "dangerous"? Reddit? Tumblr? Are there other social media that gain traction when it comes to fake news? Which medium has the most self-correction or which is mostly left unchecked?

**Q16. How do you assess a source's trustworthiness?** By experience? How much does it help if another journalist has (seemingly) checked it before? Do you double check? When (not)?

## Fake News and end users

**Q17. According to you, what is the best way to explain the veracity of news to end users?** Label it on social media? Write an in-depth article about it? Open up Fandango to the public? Emphasise trustworthy sources? This will give us an indication of how fast they think Fandango should work (instant vs. via them)

**Q18. Would you think it's useful to open up Fandango to the general public so anyone can do verification?** Is it a "journalist thing" or could Fandango be useful as a source in online discussions, to cite as a source like Snopes.com is often used for obvious hoaxes, or Wikipedia?

## Extra remarks or comments

**Q19. Anything the participant mentioned or did during the interview that was noteworthy?** Specific information about the context of the interview? Anecdotes? Anything to add? Anything that doesn't answer the questions above goes here. It could give extra insights.

## 7.2. INTERVIEWEES

The list of journalists interviewed during the requirement gathering phase was the following. We tried to cover a diverse mix of profiles in terms of experience, topics and formats:

INITIALS	PROFILE
A. B.	Italian reporter. Working at ANSA for more than 27 years. Also a Web Journalist and experienced social media user. One of the few ANSA Journalists who has done some "fake news hunting".
B. G.	Italian journalist who works at ANSA Foreign Desk since 2006. She has a limited experience writing about fake news, especially about those in the

	USA.
<b>C. C.</b>	Italian economic Journalist who works at ANSA since 2009. Assistant Chief Editor of the ANSA Economy and Finance Newsroom in Rome. He is a blogger and uses Twitter since 2012.
<b>B. V.</b>	Journalist at VRT <i>Terzake</i> (daily TV show about current affairs).
<b>E. B.</b>	Spanish journalist specialised in public data treatment and analysis. Currently Managing Editor at Civio. Delivers training on data journalism to major media organisations in Spain.
<b>J. V.</b>	Civio's communication officer and journalist.
<b>M. K.</b>	Foreign affairs journalist for VRT NWS, specialised in the Middle East. Works primarily for TV. Is recognised as the leading voice in verification and fake news at VRT NWS.
<b>M. A. G.</b>	Spanish data journalist for Civio. Expert in public data treatment and analysis.
<b>T. V.</b>	Investigative journalist at VRT NWS. Focuses on long investigations, social media and fake news.
<b>V. M.</b>	Researcher, editor and social media manager for Rudi Vranckx, a renowned foreign affairs and investigative journalist at VRT, specialized in the Middle East.
<b>F. B.</b>	Political Reporter at ANSA. On the microblog he finds alerts and 'first calls' for stories.

### 7.3. ANSWERS

A selection of the most relevant and informative answers is shown below, for each of the questionnaire items. Key conclusions are gathered in section 5, User Requirements.

#### Classification and definition

##### Q1. What do you classify as "fake news"?

<b>A. B.</b>	<i>Every news not verified, or not coming from a credited source, is a possible Fake News.</i>
<b>B. G.</b>	<i>Either a plausible but false story, more difficult to spot in comparison to a blatant lie, or incorrect or inflated news for political propaganda or sensationalism.</i>
<b>C. C.</b>	<i>Out of contest truth, plausible wrong numbers.</i>
<b>B. V.</b>	<i>I work at a daily current affairs show, so for me "fake news" is limited to breaking news items and things I come across during research. Always related to the news of the day, though. It usually has to do with (geo)political affairs,</i>



	<i>and it's more geared towards verification of video and images</i>
<b>E. B.</b>	<i>Information that is a lie in its entirety or in part -twisting figures or studies, for example- focused on being viral and / or scaring people, changing opinions or confronting the population.</i>
<b>J. V.</b>	<i>A disinformation "product". Fabricated information, frequently blended with facts, to cause harm or just profit.</i>
<b>M. K.</b>	<i>It's a dangerous term because it is used too much to discredit opposing views. I don't use it. I like to call out very specifically what's wrong, e.g. "This is a propaganda film" or "an unknown and unverified source claims that..." It's best to be as specific as possible. Infographics with categories of fake news (like the one linked above) can help, but I've seen so many and I don't use them. The types of fake material I work with the most are photo and video.</i>
<b>M. A. G.</b>	<i>All that information that, by involuntary error, omission, negligence or intentionally, is presented as truthful and contrasted when it is not.</i>
<b>T. V.</b>	<i>The fake news era as we know it from the American presidential elections has passed. Now I focus more on the actors and their underlying motives.  I acknowledge the anxiety around fake news though. It had a big impact on Brexit. But it didn't work in the French or German elections, for instance.</i>
<b>F. B.</b>	<i>Pseudoscience and data manipulation.</i>

**Q2. What types of fake news are the most difficult to deal with?**

<b>A. B.</b>	<i>Those told by politicians.</i>
<b>B. G.</b>	<i>Those that come from a single source and cannot be verified independently.</i>
<b>C. C.</b>	<i>As an Economic Journalist, half-truths are my worst enemy, especially those told by Politicians for political reasons. Those "interpretations" can be difficult to correct.</i>
<b>B. V.</b>	<i>News that is not factually incorrect but is very one-sided or selective. Like, lacking any nuance or used to serve a specific purpose, point of view or world view of the author. You can't say "this is wrong and for these reasons" because it isn't. You have to clarify the reason for its publication and that's hard, especially when it's picked up on social media.</i>
<b>E. B.</b>	<i>Those in which the news may seem credible or fit into our cultural framework. And, on the formal level, those in which there is no clear source or their assertions are not based on data and are more complicated to counteract.</i>
<b>J. V.</b>	<i>Those products with an "appearance of news" (including several links to apparently credible and direct sources, quotes, video and audio footage, images, document screenshots) published in sites with the looking &amp; feel of a</i>

	<i>professional media organization.</i>
<b>M. K.</b>	<p><i>When it comes to verification of news: definitely claims made by politicians. It's our duty to check them and not parrot everything they say. But it's hard. Claims like "Because of our policies, migration number in Belgium have decreased by 60%" take a lot of time to check, but they are the most important. Also breaking news, because then everything has to go really fast and there's suddenly an overload of unchecked content. Blatant, purposeful misinformation. Like, easily identifiable wrong info.</i></p> <p><i>E.g. the <a href="#">Douma Chemical Attack</a>, where a Russian station claimed to have "obtained" photos from a White Helmets film set where the recent gas attack in East Ghouta would have been staged. In fact, they were photos from an actual film set, taken from the Facebook page of an actual film. Easy to spot, but not if you're not paying the least bit attention or when you want to believe it.</i></p>
<b>M. A. G.</b>	<i>Those based on sources that cannot be consulted, such as when they are cited as anonymous or when they use internal unpublished reports, or whose context is unknown and are presented partially.</i>
<b>T. V.</b>	<i>Fact checking and verification of claims. Especially in election time because of the sheer amount of posts.</i>
<b>V. M.</b>	<i>Facts and opinions definitely. Or biases rather. Or framing of facts. There are websites that publish factually correct information, but very selective or biased towards one side or the other. The numbers they cite are not wrong, just used to clearly convey a certain point.</i>
<b>F. B.</b>	<i>'Selective reporting'</i>

## Formats

### Q3. What format of fake news is the hardest to verify?

<b>C. C.</b>	<i>Actually, we use only trusted sources, so we automatically doubt of studies and researches that come from unverified sources. Those are the most difficult, but we are prepared to check: it's mandatory.</i>
<b>B. V.</b>	<i>Video. It is very labor intensive. For instance: during or right after the 2016 Munich shooting, amateur footage was posted online but we didn't know if it was real yet. So, I looked at it frame by frame and cross checked it with Google Street View to verify if it was the right location. Based on 6 frames in the video we could verify that it was indeed from that MacDonald's restaurant in Munich. That was fairly simple, but when you're dealing with footage from remote areas in Syria, you can't verify it that well at all. There's no Street View there.</i>
<b>E. B.</b>	<i>Videos and audios, as well as articles based on unidentified sources or for which there are no credible sources that serve as a counterweight.</i>

<b>M. K.</b>	<i>It depends... (hesitates)... I would say video but it depends on the subject. Footage of protests, clashes with police, etc. are easily staged and manipulated. But the subject is more important. Technically video and photos might be hard, but politicians' claims are more important.</i>
<b>M. A. G.</b>	<i>From a technical ignorant point of view: multimedia formats and real data about their recording (date, time, place and context).</i>

### Workload

#### Q4. How much time does fake news verification take up in your average work day?

<b>A. B.</b>	<i>In an average work day, almost no time because we don't have it. Of course, we verify news that come from uncertified sources if they are worth it. Otherwise we discard them entirely.</i>
<b>C. C.</b>	<i>Again, our news come only from verified sources and those that are not are checked anyway, so it's part of the job and thus is difficult to calculate.</i>
<b>B. V.</b>	<i>It depends on the news day. For our daily TV show, it's less than for the online news colleagues. I'm guessing about 1 hour per week of real verification.</i>
<b>E. B.</b>	<i>It depends a lot on the day. In my case, if I do it directly, it is usually more to verify information provided by the public authorities themselves. On occasion, I need to verify news stories in the process of investigating my own news, since we never quote other media without assuring ourselves that what they published is true. Thus, when writing about something with a previous history (e.g. a new development in a corruption case), we need to know if what has been published so far on the subject is true or not.</i>
<b>J. V.</b>	<i>I don't carry out news verification tasks on my day-to-day work, but I follow up news related to disinformation spread and news manipulation almost on a daily basis.</i>
<b>M. K.</b>	<i>100%. In my line of work, I always have to verify or triple check a source or material. Not a day goes by when I don't have to verify something.</i>
<b>M. A. G.</b>	<i>More than verification of fake news, I continually check the data, reports or statements I investigate. It is a radical part of journalistic work. And it serves, precisely, to avoid spreading fake news.</i>
<b>V. M.</b>	<i>It depends on what I'm doing. It takes up the most of my time during research and while managing our social media. I'd say I usually come across or have to verify content once a week on average.</i>
<b>F. B.</b>	<i>2 hours.</i>

#### Q5. How many possible fake news items are you not able to handle on an average day? How much is left on the table?

<b>A. B.</b>	<i>Difficult to say. We work on the moment, later is usually too late and it does not count...</i>
<b>B. G.</b>	<i>At the Foreign Desk (ANSA) very few or even none.</i>
<b>C. C.</b>	<i>None that I know of...</i>
<b>B. V.</b>	<i>Almost none. That's not an issue, really. When something needs to be verified I get enough time to do it. If I can't, it is usually too hard or too vague for anyone.</i>
<b>M. K.</b>	<i>A lot. Not me alone, but the newsroom as a whole. We have to check much more than we do now. I know the pressure is on, the deadlines are tight, but still. One politician claimed we expel as many Sudanese migrants as France. We didn't check that at all. We just reported it as a fact. Also, it was claimed that 10,000 people already lost their lives in the Yemen war. When I go look at the UN website, it says 6,200 deaths, so I send an email to all my colleagues at VRT NWS to be more careful.</i>
<b>F. B.</b>	<i>Not many as I have to verify everything. So, nothing is left on table.</i>

**Q6. How fast do you detect fake news that's "trending"?**

<b>B. V.</b>	<i>Fast enough. The way I set up my Tweetdeck and with the news coming from different agencies, I usually always know pretty fast when something fishy is being spread on social media. Fast enough for our editorial team at least.</i>
<b>E. B.</b>	<i>Through Twitter accounts of other journalists I trust or specialists in certain areas. If the news are about subjects that I have researched myself, I detect them by myself. The key is to have trusted specialists in several key areas (immigration, economy, health, politics, law...), because they are the ones who are able to detect fake news in their field. The key is the deep knowledge on a specific subject.</i>
<b>J. V.</b>	<i>Mainly thought through the Twitter accounts of a group of forensic research experts, fact-checking sites and diverse initiatives that fight disinformation.</i>
<b>M. K.</b>	<i>I know of all the trending "fake news" quite early on. But it would be very handy in breaking news situations to have a place where you can see disproved items, so we don't do double work or make the same mistake as others by wrongly reporting a false claim or photo. But I don't need a daily summery email newsletter or something. A weekly one maybe. For my colleagues, so they see how much fake new goes around. As a sort of evangelizing thing.</i>
<b>M. A. G.</b>	<i>Through other colleagues, experts and readers who warn us about falsehood. In case it is within my professional scope, I detect it as soon as I see the writing of the news, the sources used and the data provided, which I try to contrast on my own.</i>

**Q7. How many of those "trending" fake news items do you feel you miss? Or see too late? Or would like to see sooner?**

<b>B. V.</b>	<i>None. No need to notify me of "trending" fake news.</i>
<b>M. K.</b>	<i>I don't miss very much. My colleagues, who aren't constantly looking for it, might though.</i>

**Q8. How many times a week do you look for older (fake) news items? Items that have already been verified or debunked, to use as a reference or otherwise?**

<b>B. V.</b>	<i>I never do. Our current affairs show covers topics of the day, not older topics like in documentaries. Maybe that's more something for VRT NWS's ombudsman, who handles complaints from members of the public. He has to dive into older news items sometimes, in order to answer questions.</i>
<b>E. B.</b>	<i>Only when a fake news is replayed every so often. For example, it's published in a country in one year, and the next year it is republished in another country. For these cases, it is important to have them controlled, because it is common for them to resurface even though they have been debunked.</i>
<b>J. V.</b>	<i>Not recently. In the past, through sites such as Snopes.com.</i>
<b>M. A. G.</b>	<i>I use them as a reference for bad practices in my training materials.</i>

### Existing tools

**Q9. Which tools are you already using?**

<b>A. B.</b>	<i>Direct search on websites, personal experience and knowledge.</i>
<b>B. G.</b>	<i>Trusted websites, super trustworthy media and the old, reliable rule of double checking everything. Any news should have at least two reliable sources.</i>
<b>C. C.</b>	<i>Our fact-checking is quite traditional and relies on news databases, like our own ANSA news archive, and from reliable sources like BCE, Banca d'Italia, Istat etc.</i>
<b>B. V.</b>	<i>Google Maps and Street View to verify geographic locations in videos. I look for similarities, landmarks, etc; Online EXIF viewers like <a href="#">Jeffrey Friedl's one</a> to read an image's meta data. That sometimes reveals extra useful information, e.g. the date a photo was taken, or even the fact the meta data has been erased. This should be a part of Fandango; Google Image Search to do reverse images searches.  <a href="#">YouTube DataViewer</a> from Amnesty International USA () to check met data like upload date. They cut up the video in frames and provide reverse image</i>

	<p>searches for them as well. Sometimes that helps with the video verification.</p> <p>There's a Slack workspace for VRT NWS, but it's not focused on news verification. There's also a <a href="#">Slack workspace from the EBU</a> geared towards content verification but it's quite complicated and more used for clearing intellectual rights than actual verification.</p>
<b>E. B.</b>	<p>It's not so much a question of tools as of sources: I use rigorous and official sources to verify this information. Sometimes also checking who has published a topic and how it has been spreading through advanced searches in Google.</p>
<b>J. V.</b>	<p>Image verification tools (Tin Eye), advanced searches on Google and Archive.org.</p>
<b>M. K.</b>	<p>RevEye, a Chrome browser <a href="#">plugin</a> that does reverse image searches on different platforms. Very useful. This should definitely be a part of Fandango</p> <p><a href="#">YouTube Data Viewer</a> by Amnesty International USA. I use Tineye's Chrome plugin on the thumbnails it returns.</p> <p>YouTube <a href="#">Thumbnail Grabber</a> by BoingBoing. It returns more and larger thumbnails than Amnesty's tool.</p> <p>Watchframebyframe.com to watch videos frame by frame. I use that to search for clues of video editing: lighting or shadows that are wrong, other things that have been manipulated. This is good for war footage. It's easier than our own systems sometimes.</p> <p>The EVN <a href="#">Slack channels</a> are "ok", but they could be better. They are used more for clearing intellectual rights between member of the EBU than verification. Sometimes they don't even accept non-cleared videos, although the info in them is valuable. They also have blanket agreements with local teams or YouTube channels so that gets boring sometimes.</p> <p><a href="#">Ban.io</a>, an app to detect breaking news and other emerging events.</p> <p><a href="#">International Organization for Migration</a> to check migration numbers and data.</p> <p><a href="#">Treeverse</a>, a Chrome browser extension to visualize Twitter conversations. I use it to try to track the original source.</p> <p>Wolfram Alpha, to try to find useful data, or get a first clue on where to look further.</p>
<b>M. A. G.</b>	<p>Official public sources (registers and official journals, among others) and experts. Also Archive.org, because often you cannot know what changes a website has suffered and when they have occurred.</p>
<b>F. B.</b>	<p>Twitter and email source verification.</p>

**Q10. Are those tools sufficient for now? Why (not)?**

<b>A. B.</b>	<p>A specialized newsroom would be totally welcome, especially if we could ask</p>
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	<i>support while writing a story.</i>
<b>B. G.</b>	<i>Yes.</i>
<b>C. C.</b>	<i>Yes. Until now, anyway.</i>
<b>B. V.</b>	<i>They help, but you have to know how to use them. Sometimes colleagues ask to help with verification and they don't know how to use Google Image Search. Not because they are lazy, but they just haven't used it in this context before.</i>
<b>E. B.</b>	<i>It would be very useful to find a way to access easily verified information in order to counteract fake news. Sometimes, without an advanced specialization in a subject, it is impossible to find the real among all the rumours or falsehoods, much more viral.</i>
<b>J. V.</b>	<i>I miss a one-stop-shop for news (text, image, video) verification tools. The available resources are spread up on many different sites and finding, choosing and using them is too time consuming.</i>
<b>M. K.</b>	<i>TinEye is handy because it gives you a background about the image on different platforms. E.g. I feel that Yandex is much better at recognising buildings than Google. Even the simple fact that an image has a background history (or not) and is used before (or not) says a lot.</i>  <i>Tool suggestion: Something to find local eye witnesses. E.g. Flemish people in Venezuela who let their friends know on Facebook or Twitter that they're safe. We have to look for them ourselves now, using the Facebook graph search, but it would be nice to have an overview.</i>
<b>M. A. G.</b>	<i>No, and there're problems in accessing these official sources, often subject to bureaucratic procedures that lengthen the processes.</i>

**Q11. Do you or any of your colleagues use advanced tools to verify fake news, see trends or dive deeper into the matter?**

<b>B. V.</b>	<i>Nope. No data scientists in the newsroom.</i>
<b>E. B.</b>	<i>Not to verify specific news items, but to thoroughly analyze an issue and, based on this in-depth knowledge of a topic, to be able to disprove certain assumptions or unsubstantiated claims.</i>
<b>M. A. G.</b>	<i>No</i>
<b>J. V.</b>	<i>No</i>
<b>F. B.</b>	<i>No. We are efficiently old-fashioned. Like in the good old times we call our sources. It may be slow, but it is safe.</i>

## Sources

**Q12. What's most important: the news item itself or the source?**

<b>B. V.</b>	<i>It depends. If an item is obviously super fake and the source is shady, then we don't even bother to check it. But a source can lean left or right as well, and then it's no use labeling them with "trustworthy" or "untrustworthy". For example, Russia Today. They clearly have an agenda, but not everything they publish is fake. You have to know their affiliation to put their news into context. The same with <a href="http://geenstijl.nl">geenstijl.nl</a> (a Dutch online only news site): they are known to be right-libertarian. They attack the left and the right all the same, or the "main stream media". Another example: <a href="http://www.doorbraak.be">www.doorbraak.be</a> vs <a href="http://www.dewereldmorgen.be">www.dewereldmorgen.be</a> (both Belgian news sites). The first is known to be very pro-Flanders, nationalist, right leaning. The second to be leftist, backed by unions, etc. Not everything they write is "fake news", but you have to know their background and where it's coming from.</i>
<b>E. B.</b>	<i>Both are important and are related. If the source of a story is not clear or it's not reliable, it's enough to be, at least, suspicious. But news articles are false because of their contents, regardless of who endorses them or how they are published.</i>
<b>M. K.</b>	<i>Good question... I'd say the source. That says a lot. Some sort of classification based on a spectrum (not only trustworthy of not) can help. We should be able to do it from experience, but it can help. E.g. for people who haven't heard of the White Helmets before. Important: that classification or that spectrum should be assigned by our people. Not a Wikipedia article or something. It's important how we at VRT assess a source.</i>

**Q14. Do you use some sort of registry of trustworthy sources? Do you keep your own?**

<b>A. B.</b>	<i>No.</i>
<b>B. G.</b>	<i>Yes. Now I can say I keep it mostly in mind, but I rely also on the bookmarks of my computer browsers.</i>
<b>C. C.</b>	<i>Yes. I've now an electronic database and I update it every time I can.</i>
<b>B. V.</b>	<i>Nope. I don't consult such registries and I don't keep my own. I usually rely on my own interpretation.</i>
<b>E. B.</b>	<i>No, but we do have a database of sources that we usually use in our information and that are official and rigorous, such as databases or official publications.</i>
<b>M. A. G.</b>	<i>Yes, although it is not systematized. It is an informal register, accumulated by experience and constantly expanding.</i>
<b>F. B.</b>	<i>Yes.</i>



**Q15. Which social media suffer the most from fake news? Which one is most impacted or does the most damage?**

<b>A. B.</b>	<i>Facebook, but even some newspapers are dangerous.</i>
<b>B. G.</b>	<i>I'd say Facebook and Twitter.</i>
<b>C. C.</b>	<i>Like many Political and Economic journalists, I use Twitter a lot as a source. But a good journalist has to be able to 'decipher' its content. I think Facebook and Twitter are dangerous just the same, but differently: Facebook is more emotive, Twitter more rational.</i>
<b>B. V.</b>	<i>When you're dealing with fake news of the type the Macedonian teenagers published about the American elections, I would say Facebook. For breaking news (shootings, terrorist attacks, etc.) it's Twitter. Because it's so fast and all the journalists are on Twitter, fake news can spread very quickly. Some even try to trick that: they publish false stuff to see if it reaches the front page of news websites.</i>
<b>E. B.</b>	<i>I don't think it's something intrinsic to a medium or a format. The most affected social environment will be the one that is most used or has the most impact in each geographical area, for example. None of them is tackling the problem efficiently, but it is true that the line between avoiding the spread of fake news and censorship is very fine if they do not engage specialists in it.</i>
<b>J. V.</b>	<i>YouTube, according to recent reports.</i>
<b>M. A. G.</b>	<i>All social networks and instant messaging services, such as WhatsApp or Telegram, are the typical channels for the transmission of fake news. I do not know, quantitatively or qualitatively, which are the most affected.</i>

**Q16. How do you assess a source's trustworthiness?**

<b>A. B.</b>	<i>Mainly by experience. Double check only in special circumstances, when the news is not totally clear.</i>
<b>B. G.</b>	<i>Experience and double checking.</i>
<b>C. C.</b>	<i>Experience, common sense, knowledge of the matter. Double checking, however, is always good if there is any hint of foul play.</i>
<b>E. B.</b>	<i>No single source is sufficient to guarantee a report. Regardless of whether another journalist has verified it, we also verify it. This is so because the processes of control and editing in the media are sometimes not as rigorous as we would like and, therefore, we can't trust them. On too many occasions false news or articles that are no longer true remain published. What does help is when another journalist verifies something and shares their methodology, which enables you to very easily check if what they say is true</i>

	<i>and avoid duplicating their investigation.</i>
<b>J. V.</b>	<i>By having context on the source's general interests in a given moment: it's incentives and intention to provide certain information, along with its direct access to the data/arguments revealed. A map of unreliable sources that get coverage about certain topics could be interesting.</i>
<b>M. K.</b>	<i>By experience. I know which sources to trust, even from deep in the frontlines in the Middle East. I know their allegiances, their biases, the motivations, etc.</i>
<b>F. B.</b>	<i>I always double check. No matter how trustworthy my source is.</i>

### Fake News and end users

#### Q17. According to you, what is the best way to explain the veracity of news to end users?

<b>A. B.</b>	<i>I don't know, maybe inside the story.</i>
<b>B. G.</b>	<i>I don't know.</i>
<b>C. C.</b>	<i>The by-line signature of a reputed journalist and the brand of a respected news outlet are the main thing. I do not favour a "truth stamp", because in the end is always dangerous.</i>
<b>B. V.</b>	<i>I don't know. If you made a mistake in your own article, you should correct it later in the same article and don't write a new one about it. It makes me think about an experiment that Facebook once did where a team of editors labelled fake news posts. I think they stopped it because they saw that people shared it even more. The problem runs deeper: even when fake news is debunked, some still say "Yes, but imagine it did happen" or "Maybe this time it was wrong but what about next time" People don't believe in facts anymore. They use whatever fits their worldview, even if it's demonstrably wrong.</i>
<b>E. B.</b>	<i>The best way to fight against fake news is, in my opinion, not only to give reasons why they are wrong statements (through articles showing data that debunks them) but trying to viralize that response. The problem, too often, is that the fake news reach much further than their rebuttals. It's not a matter of speed, but of offering a reliable denial and in attractive formats or through means that reach the same public that received the original fake news</i>
<b>J. V.</b>	<i>Not just exposing the factual inaccuracies, but also the most certain motives and interests behind a disinformation operation (e.g. discredit a person, organization, government) and who and how spread it (e.g. were automated amplification techniques used?). Although difficult, reaching consensus on which quality indicators for news could be measured would be helpful.</i>
<b>M. A. G.</b>	<i>The reliability is given, in a big part, by the sources of the information. Therefore, I would emphasize this aspect. And educating the audience to be critical, question everything they read and ask them to share in social networks any detected fake news informing what is misleading.</i>

<b>F. B.</b>	<i>I believe it is a matter of certified media outlet. If I see a story on ANSA or Reuters I believe it is true as somebody paid to verify all the information.</i>
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**Q18. Would you think it's useful to open up Fandango to the general public so anyone can do verification?**

<b>B. V.</b>	<i>Yes, this could be very useful. It would have to stand its own test though. Otherwise people will say that [Fandango] itself is biased, or that it is funded by the wrong people. But it would be good to have something that is "powered" by journalists that everyone can use.</i>
<b>E. B.</b>	<i>It could be useful. Fake news are not only distributed via media outlets. If the denials do not reach personal channels, such as WhatsApp, no matter how much the media publishes them, many people will continue to believe fake news.</i>
<b>J. V.</b>	<i>Yes, absolutely.</i>
<b>M. K.</b>	<i>Yes. I'd like to contribute my knowledge to a platform that anyone can use. It would have to stand its own test though. Otherwise people will say the platform itself is biased.</i>
<b>M. A. G.</b>	<i>Verifying information should not be a matter exclusively for journalists: the main unconscious consumers of fake news are not journalists. I think that extensions for Chrome like Le Monde's Decodex, which informs about the reliability of the visited site, are useful for readers and would be desirable complements of this style for the usual information / broadcasting channels.</i>
<b>T. V.</b>	<i>Very interesting. Powered by the knowledge and experience of weathered journalists, but useable by anyone. Good idea!</i>

#### Extra remarks or comments

**Q19. Anything the participant mentioned or did during the interview that was noteworthy?**

<b>B. V.</b>	<p><i>You can no longer assume that "the news" is trustworthy. Not even if it comes from press agencies. How fast someone publishes something can raise suspicion about their trustworthiness. E.g. during the terrorist attacks in Paris, the Twitter account of the GOP in Tennessee posted video footage very quickly. It later was discovered that this wasn't an official Twitter account at all, but a fake one, controlled by the Russian "Internet Research Agency" (IRA). Sometimes such footage is correct, e.g. ripped from a Periscope live feed, but edited or inflated. A video of a fire can easily be labeled as an "explosion" that way. <a href="#">Backstory</a>.</i></p> <p><i>More of our colleagues should use their common sense instead of chasing quotes or trying to be first. It doesn't happen often because we pride ourselves on checking the facts, but sometimes things slip through the net: once, Mia Doornaert (an independent journalist who often is invited in Ter Zake) tweeted</i></p>
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	<p><i>a video of alleged Swedish Muslims attacking a Christmas tree. It was an already debunked video of a benign Christmas contest in Cairo and she later apologized, but it hurts our credibility when we invite people who make these mistakes. (<a href="#">Backstory</a>, in Dutch)</i></p> <p><i>Let alone if we make them ourselves. Once we aired footage of a toppling construction crane in a storm in The Netherlands on national television, when it was in fact three-year-old footage from the US. Important note about the working context: Our news room is not structured to facilitate verification of news. There's only 3-4 people who are familiar with it on a total of 300-400 people with varying roles and profiles. Often there's not enough time to thoroughly check information. And the colleagues researching the items are often not experienced enough and could use simpler tools.</i></p>
<p><b>M. K.</b></p>	<p><i>Context: I meet Majd at his desk around 13:00. He eats his lunch while watching the one o'clock news together with his colleagues. They all have a little TV screen. They work primarily for TV but have to write articles as well. There's six of them. They discuss the news (including their own items) while watching.</i></p> <p><i>We use iNews as an editorial tool at VRT NWS. I also use it to look up things I or one of my colleagues have said in the past. Sometimes we're called out on it, so we can search for the exact words we've used. Sometimes we edit text even during the news. It appears directly on the host's teleprompter. Just to add nuance when something isn't verified yet.</i></p> <p><i>Example case: On April 6th, Ter Zake (a current affairs show from VRT NWS) aired an interview with the leader of the "Islam" (literal name) party in Brussels. He published some controversial claims that men and women should be segregated on public buses. I know him, he's a bus driver.</i></p> <p><i>He also claimed that he didn't have and didn't want an affiliation with the mosques because he believed in the separation of church and state. I remembered him saying otherwise before, so I googled him and found a radio interview in Arabic from a few years ago. There he admits he would like to campaign in or around mosques, but that they chase him away because they allegedly are affiliated with other parties (PS). I wrote an <a href="#">opinion piece</a> on it (in Dutch). I think we should be more careful when repeating politician's claims or when we give them a forum. I understand it was hard for my colleagues because they don't have the knowledge (they don't speak Arabic), but still. Unchecked claims are dangerous.</i></p> <p><i>This piece of extra research cost me about 2,5 hours of work. I was lucky that this man's claims were refuted in the first half hour from the hour-long radio show. I did it from home, because it was a Saturday. But I felt it had to be done.</i></p> <p><i>Shortly after the Algerian military plane <a href="#">crashed on April 11th</a>, images of the plane were shared on social media with the hashtag #PrayForAlgeria. But they used the wrong image of a plane crash from 2013. Even my sister shared it on Facebook. I did a simple reverse image search and corrected her.</i></p> <p><i>Fandango should support multiple languages. Not in the least Arabic.</i></p> <p><i>A source I advised against using is the otherwise extremely popular Syrian girl</i></p>

	<p><a href="#">Bana Alabed</a> (350k followers). People put words in her mouth and use her as a channel, a talking head for their information. Not propaganda per se, but biased. She explained what happened in Aleppo during the siege in short Twitter videos. She spoke in short English sentences because her mom is an English teacher. But when I looked up her mom, she wasn't that fluent in English. She met Erdogan after the liberation of Aleppo. I would flag her as a possibly biased source, despite her popularity.</p>
<b>T. V.</b>	<p>Belgium or even the Dutch speaking countries (The Netherlands + Flanders) is too small and specific for fake news to have a big impact.</p> <p>Europe's inherent heterogeneous character, with all its different countries, cultures and languages might in fact be an advantage in mitigating or controlling fake news.</p>
<b>V. M.</b>	<p>Real life example: the recent chemical attack in Syria. What is right and what is wrong? We don't know for sure, because there are no independent observers. We rely on information from the White Helmets because they have proven to be trustworthy in the past. And sources like Bellingcat. But when we post it on our Facebook page we get a deluge of reactions that claim to refute the info citing clearly fake news sources.</p>