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Accurate Information Sharing and Combating Disinformation on Climate Change: A Comparison of Climatefeedback.org [1]and Teyit.org[2]

İklim Değişikliğinde Doğru Bilgilendirme ve Dezenformasyonla Mücadele: Climatefeedback.org ile Teyit.org Üzerine Bir Karşılaştırma

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Abstract

Purpose: *This research aimed to comparatively examine the role and potential of fact-checking platforms in producing accurate information and preventing disinformation about climate change.*

Method: *In the study, the texts (n=584) of the fact-checking and fact-sharing reviews on climate change conducted by Teyit.org (Türkiye) and Climatefeedback.org (France) fact-checking platforms were analyzed through quantitative content analysis. The texts were categorized by the study authors into different aspects such as topic, types of claim, and claim makers. The data were entered into the SPSS program to make clear calculations, and the findings revealed through cross-tabulation were discussed.*

Findings: *The findings reveal differences in the subject matter of disinformation, the actors involved in the content preparation process, and the use of corrective resources. While there is a similarity in the way fact-checking platforms are implemented, the content emphasizes the causes and effects of climate change.*

Implications: *Since it was determined in the research that disinformative content on climate change is widespread, the need to overcome disinformation and provide accurate information comes to the forefront. At this point, it was concluded that fact-checking platforms play an important role and have potential with their content, scientific determinations, transparency, and accessibility in enhancing climate change literacy. It was concluded that Climatefeedback.org's scientific aspect is stronger in terms of the actors preparing the content and corrective resources, and Teyit.org needs improvement in terms of the number of fact-checks.*

Originality: *Research examining the role, similarities, and differences of fact-checking platforms in the process of producing accurate information on climate change is quite limited. Being the first study on the production of accurate information on climate change in Türkiye, the application of fact-checking platforms emphasized aspects, differences, and suggestions that represent the original aspect of this study.*

Keywords: *Climate change; accurate information; disinformation; fact-checking platforms.*

[1] https://climatefeedback.org/
[2] https://teyit.org/

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Öz

Amaç: *Bu araştırma iklim değişikliğine dönük doğru bilgi üretimi ve dezenformasyonun önlenmesinde doğrulama platformlarının rolünü ve potansiyelini karşılaştırmalı bir biçimde ele almayı amaçlamıştır.*

Yöntem: *Araştırmada, Teyit.org (Türkiye) ve Climatefeedback.org (Fransa) doğrulama platformlarının iklim değişikliğine dair yaptığı doğru bilgi paylaşımı ve doğruluk kontrol incelemelerinin metinleri (n=584) nicel içerik analizi yöntemi ile incelenmiştir. Metinler çalışma yazarları tarafından konu, dezenformasyon türü, iddia sahibi gibi farklı açılardan kategorize edilmiştir. Veriler net hesaplama yapmak için SPSS programına girilmiş ve çapraz tabloda açığa çıkan bulgular yorumlanmıştır.*

Bulgular: *Bulgular, dezenformasyonun konusu, içerik hazırlama sürecindeki aktörler ve düzeltici kaynak kullanımında farklılıklar olduğunu göstermektedir. Doğrulama platformlarının uygulama biçiminde bir benzerlik göze çarparken içeriklerin iklim değişikliğinin neden ve etkilerine vurgu yaptığı saptanmıştır.*

Sonuç: *Araştırmada iklim değişikliği konusunda dezenformatif içeriklerin yaygın olduğu tespit edildiği için dezenformasyonun önlenmesi ve doğru bilgilendirme ihtiyacının gereklilik olduğu ön plana çıkmıştır. Bu noktada doğrulama platformlarının iklim değişikliği konusundaki okuryazarlığı artırmak adına ürettiği içerikler, bilimsel tespitler, şeffaflık ve erişilebilirlik niteliği ile önemli bir rol üstlendiği ve potansiyel taşıdığı sonucuna ulaşılmıştır. Climatefeedback.org'un içeriği hazırlayan aktörler ve düzeltici kaynak konusunda bilimsel yönünün daha güçlü olduğu, Teyit.org'un doğruluk kontrolü sayısı konusunda gelişim göstermesi gerektiği saptanmıştır.*

Özgünlük: *İklim değişikliği konusunda doğru bilginin üretimi sürecinde doğrulama platformlarının rolünü, benzerlik ve farklılıklarını inceleyen araştırmalar oldukça sınırlıdır. İklim değişikliğine dair doğru bilginin üretimi konusunda Türkiye özelinde ilk çalışma olmak, doğrulama platformlarının uygulama biçimi, vurgu yapığı yönler, farklılıklar ve öneriler ortaya koymak bu çalışmanın özgün yanını oluşturmaktadır.*

Anahtar Sözcükler: *İklim değişikliği; doğru bilgi; dezenformasyon; doğrulama platformları*

Introduction

Climate change has long been taken seriously as a major planetary challenge (Last, Trouton, & Pengelly, 1998; Houghton, Callender, & Varney, 1992; WMO, 2007). In fact, Chomsky and Pollin (2021) describe climate change as the planet's worst existential crisis, and scientist Stephen Hawking (Rincon, 2018) refers to it as one of the biggest threats to life. The vast majority of scientists have a scientific consensus on the existence and anthropogenic nature of climate change (Oreskes, 2004; Boykoff, 2007, p. 470; Bray, 2010). However, there is a deliberate spread of disinformation about whether climate change actually exists or is anthropogenic (Gibbons, 2020, pp. 198-199; Oreskes & Conway, 2021). Fossil fuel companies that cause climate change and government officials unwilling to compromise on economic and industrial development aim to undermine the scientific consensus and public perception of climate change (Boykoff & Yulsman, 2013). By doing so, these governments and fossil fuel companies aim to protect their own interests by preventing or delaying measures and adaptation efforts against climate change. For this purpose, there is a sharing of disinformation on climate change through media outlets.

While the media's task of informing the public stands out in terms of its functions (Charon, 1993), it is likely to become the main source of disinformation. Especially with the development of new communication technologies, the spread of disinformation has become easier and faster with digital news pages and social media platforms (Bradshaw, Bailey & Howard, 2020; Vasist, Chatterjee & Krishnan, 2024). In a serious issue like climate change (Willis, 2020), it is important to understand the tactics underlying obstruction strategies (Gertrudix et al., 2024), where relevant actors promote certain narratives to manipulate public perception and delay the implementation of sustainable policies. Recently, fact-checking platforms have been established to combat disinformation, identify and debunk false information through fact-checking, and share accurate information. Many fact-checking platforms established in global areas and countries examine the claims shared on many topics that engage society and are discussed, and determine the degree of accuracy. From this perspective, although it is not possible to verify all information, fact-checking platforms play a crucial role in disseminating accurate information and preventing the spread of disinformation. However, research on the verification processes and practices of fact-checking platforms is quite insufficient. At this point, whether the verification processes are similar or different across platforms is an important area of investigation. Research on this issue (Vu, Baines & Nguyen, 2023; Palau-Sampio, Crisóstomo Flores & Picó Garcés, 2024) often focuses on the countries of the Global North in Europe and North America, although it rarely includes countries in South America. The study by Vu, Baines, and Nguyen (2023) focuses on fact-checking platforms for climate change disinformation in four countries (Germany, the UK, the USA, and Australia) and finds that fact-checking differs across countries. The study by Palau-Sampio, Crisóstomo Flores, and Picó Garcés (2024) emphasises that there are no regional differences in terms of climate change in the fact-checking platforms of nine different countries and that there is widespread disinformation on climate change. This study compares Climate Feedback.org with Teyit.org and aims to reveal the differences between France and Türkiye. Thus, the context of Türkiye, a country of the Global South (Oğuzlu, 2024), regarding the role of fact-checking platforms in sharing accurate information and combating disinformation on climate change is

analysed. It also examines whether the way fact-checks are implemented is related to the value placed on science. This research, which examines fact-checking content on climate change between 2014 and 2024, focuses on Teyit.org (Türkiye) and Climatefeedback.org (France), and examines the dimensions of the struggle against disinformation on climate change through quantitative content analysis. The study aims to reveal the role of fact-checking platforms by revealing which aspects of climate change the fact-checked claims focus on, on which platforms they are put forward, and what kind of claims they encounter, and aims to emphasize the importance and potential of fact-checking platforms.

Climate Change, Disinformation, and Fact-checking platforms

Climate change is the negative change in factors such as temperature, precipitation, humidity, and wind by trapping the heat from the sun as a result of the accumulation of carbon emissions and other greenhouse gases in the atmosphere as a result of human impact (Türkeş, 2008, p. 26). Such transformations make climate change one of the most important problems of the age due to its significant global impact. Climate change has impacts ranging from agriculture and livestock to air temperatures, extreme weather events, sea levels, and biodiversity loss (Demir, 2009; IPCC, 2022; Türkeş, 2022).

The causes of such a major crisis are a matter of debate. Although there is a strong scientific consensus that climate change is anthropogenic (Van der Linden et al., 2015; Oreskes, 2018; Myers et al., 2021), the fossil fuel industry and governments that cause climate change propogate doubts on its existence or anthropogenicity of climate change (Painter & Ashe, 2012; Hornsey & Lewandowsky, 2022; Ashe & Poberezhskaya, 2022) to hide their responsibility. In this respect, it deliberately produces false, misleading, and harmful information, thus spreading disinformation (Guess & Lyons, 2020, p. 10; Hayward, 2025, p. 1). This disinformation is often mediated through the media.

While the media is expected to inform the public correctly and raise awareness about environmental problems (O'Neill & Boykoff, 2012), disinformation about climate change is spread by the media (Boykoff & Yulsman, 2013). Because it is possible for the government and industries to control the media through ownership or other means (Boykoff & Yulsman, 2013, p. 361), the technological advancements brought about by digitalization have also created a new environment for the production and dissemination of disinformation. Social media, in particular, has made it easier and faster to spread disinformation (Karlova & Fisher, 2012; Vicario et al., 2016). Because once disinformation is published online, it can reach a large audience in a short period of time (Boussalis & Coan, 2018), leading to negative consequences that cannot be ignored (Cook, Ellerton & Kinkead, 2018).

Climate change disinformation refers to the creation and public dissemination of false, incomplete, or misleading information about climate change (Thapa Magar, Thapa & Li, 2024, p. 595). This strategy aims to obstruct the implementation of preventive policies towards climate change that would disrupt economic gains (Almiron & Moreno, 2022, p. 13). At this point, it is seen that the idea denying climate change lacks a well-reasoned and strong scientific aspect. Such disinformation undermines the fight against climate change (Farrell, 2019; Oreskes & Conway, 2021). In fact, a 1995 report by the Intergovernmental Panel on Climate

Change (IPCC) stated that disinformation is a factor hindering the effective communication of environmental science (Gertrudix et al., 2024).

While accurate information has the potential to increase climate change awareness, disinformation spread by the fossil fuel industry and governments makes it difficult to understand the seriousness of climate change. Disinformation about climate change threatens to trigger environmental damage and cause significant changes in the world's ecosystem that will harm both human and non-human life (Kurnia et al., 2024). Systematic disinformation therefore has a profound impact on decision-making processes, the effectiveness of public policies, and the actions they promote (Abudu, Wesseh Jr & Lin, 2023). In addition, low awareness of climate change causes individuals to be involved in this disinformation process. As a matter of fact, according to Whitmarsh (2011), the dissemination of disinformation shapes the understanding of climate change in a society, lacking scientific expertise, leading to an underestimation of risks. Underestimating the risks of climate change delays urgent action (IPCC, 2022). In addition, research (McCright & Dunlap, 2011; Lewandowsky et al., 2013; Lutzke et al., 2019, p. 7) shows that individuals' education level, cultural structure and political ideology can also reinforce their tendency to believe disinformation. Such that, the study by Ejaz et al. (2024) revealed that socio-cultural values affect the belief in climate change disinformation by emphasising the concept of trust.

In an ecosystem where disinformation spreads so quickly and easily, how to prevent disinformation is an important topic of discussion, and the need for accurate information sharing on climate change is increasing. Moreover, the spread of disinformation limits the impact and dissemination of accurate information on climate change (Lutzke et al., 2019, p. 2). At this point, it is possible to conduct a fact-check (Elizabeth, 2014) by investigating the alleged facts - away from partisanship, advocacy, and rhetoric - in the statements made by politicians and anyone whose words affect the lives of others. At this point, fact-checking platforms play a crucial role in preventing disinformation in the media. By addressing the information discussed in newspapers, television, social media, scientific research, and scientists' opinions on almost every subject, they determine the degree of accuracy of the claim and share accurate information.

According to Gülin Çavuş (2018, p. 55), co-founder of Teyit.org, although fact-checking is divided into fact-checking of politicians' discourse and verification of user-generated content in the media, it is difficult to make clear distinctions, and fact-checking platforms have an important role to play in combating the distrust of print and digital media. Fact-checking platforms provide accurate and accessible information to debunk myths, and their absence makes individuals more vulnerable to misleading information (Heffernan, 2024, pp. 7-9).

Globally, there are fact-checking platforms that conduct fact-checking on many different issues. Fact-checking platforms such as PolitiFact, Fact-check.org, Snopes.com, #Refugecheck, and Climatefeedback.org (Brandtzaeg & Folstad, 2017) confirm the accuracy of information claimed on many topics, especially politics. Similarly, many fact-checking platforms such as Teyit.org, Malumatfuruş, Doğruluk Payı, and Doğrula.org (Kavaklı, 2019; Yumrutaş, 2022; Çöllüoğlu, 2023) are active in Türkiye. Teyit.org, which constitutes one of the samples of this study, operates as a non-profit fact-checker that "aims to make the habit of critical thinking a common value" in the information ecosystem and has been analyzing suspicious information

since 2016 (Teyit.org, 2025a). Climatefeedback.org is part of Science Feedback, a non-profit platform that verifies false information in the field of health and climate, and aims to provide users with scientifically sound and reliable information (Climatefeedback.org, 2025). It is seen that fact-checking platforms pave the way for an accurate information process on many details, where the level of accuracy is debated. While the need for accurate information on climate change and the fight against disinformation is very important, the role and potential of fact-checking platforms also come to the fore. For this reason, the potential of these platforms is worthy of academic research.

Methodology

This study examines the role of fact-checking platforms in preventing disinformation and providing accurate information sharing on climate change. In the study, which aspects are emphasized by fact-checking platforms, which types of claims are prominent in which platforms, and what kind of corrective resources are used in fact-checking processes are examined through a comparative quantitative content analysis method for Teyit.org (Türkiye) and Climatefeedback.org (France). Global fact-checking platforms such as Fact-check.org and PolitiFact were also analyzed in the study. However, it was observed that Fact-check.org does not clearly determine the degree of accuracy in the fact-checks it issues on climate change. Politifact, on the other hand, has over nine thousand results on climate change, and many posts are not related to climate change. It seems quite difficult to classify and categorize the content results found, making it difficult to make comparisons. Climatefeedback.org is the climate change information verification network of Science Feedback, a globally respected fact-checker. Teyit.org, on the other hand, operates as a well-established fact-checker in Türkiye, sharing accurate information and conducting fact-checking with a category specific to climate change. In the conducted scans, it was found that different fact-checking platforms in Türkiye produce very little content on climate change. In addition, the fact that Teyit.org has developed an area specifically dedicated to climate change and Climatefeedback.org focuses specifically on this issue has led to the idea that it would be more appropriate to compare these fact-checking platforms.

Considering the National Aeronautics and Space Administration's (NASA) assessment of the concepts of global warming and climate change (2025), climate change was called “global warming” when the concept was perceived only as an increase in temperature. In time, when it was realized that it was not only related to temperature increase, but also brought along different environmental impacts, it was defined as “climate change”. However, it is thought that there is no problem in using both concepts instead of one another (EKOIQ, 2021). The concept of “climate crisis” has also come to the fore frequently, with the idea that measures towards the phenomenon have become more urgent in time (Budak, 2023). It was also observed that all three definitions were found in many texts in the content of the fact-checking platforms (Teyit.org, 2022; Teyit.org, 2023; Teyit.org, 2024; Climatefeedback.org, 2016; Climatefeedback.org, 2023). In this direction, by searching the words “climate change”, “global warming”, and “climate crisis” on the web pages of the fact-checking platforms, a total of 584 content were accessed from Climatefeedback.org (n=381) and Teyit.org (n=203) between January 1, 2014, and December 31, 2024. While 433 of these contents (Climatefeedback.org

n=355 and Teyit.org n=78) represent the verification of a claim, 151 of them (Climatefeedback.org n=26 and Teyit.org n=125) include accurate information sharing. The content analysis method used in the study is a method that enables objective, systematic, and quantitative analysis of the targeted content (Berelson, 1952). The content analysis method requires establishing a relationship between the whole and the reduced (Bilgin, 2006, p. 12) by dividing the contents into themes in the review files that undergo accuracy checks.

In this study, a coding sheet was created after the contents were read by the authors. First, the texts obtained as a result of relevant searches on the web pages of the fact-checking platforms were manually downloaded to the computer by the authors. Texts that were not focused on climate change but contained the concept of climate change were collected manually by the authors so that they could be easily distinguished from the main sample. The authors reviewed each text individually once the data collection process was complete. They analyzed the content from both fact-checking platforms and organized it under the most comprehensive categories for the purpose of the method. The content was re-read by the authors to ensure accurate and reliable coding. The most appropriate classification is attempted by combining the subject matter of the content, types of claim, the channels where it is shared, and the corrective sources under comprehensive and appropriate categories. The types of claims were categorized based on the categorization made by the fact-checking platforms in their identification, and the topics, platforms, claim makers, and corrective sources were prepared by reading the content and inspired by previous studies (Vu, Baines & Nguyen, 2023; Palau-Sampio, Crisóstomo Flores & Picó Garcés, 2024).

In the analysis of the issues addressed by the disinformation, the contents under the title “climate change” emphasized climate change in general without a focal point. The analyzed content does not focus on a specific theme (temperature, seas, and oceans) within the scope of climate change. The professions of the claim makers were determined through internet research. The data obtained in the study were entered into the SPSS program, and frequency analysis was used to measure frequency, and cross-tabular analysis was used to make comparisons.

Accordingly, the study seeks answers to the following questions:

RQ1- How do fact-checking platforms go about sharing accurate information and fact-checking? Are there differences in terms of implementation style?

RQ2- Which aspects of climate change do fact-checking platforms emphasize in accurate information sharing and fact-checking? In this sense, what are the differences between Climatefeedback.org and Teyit.org?

RQ3- What are the types of claim content that fact-checking platforms scrutinize? What are the differences between the two platforms?

RQ4- Who are the claim makers in the fact-checked information on climate change? What are the differences between the two platforms and the claim makers specific to the two countries?

RQ5- What are the differences between the corrective sources and references used by the fact-checking platforms when testing the claims?

Research Findings

Accurate Information Sharing

The two fact-checking platforms emphasise in the title what the claim is about. Both fact-checking platforms analyse the claims in detail with evidence and clearly state how they reached their conclusions. Both fact-checking platforms summarise the results of the review in the findings section, share the claims of the claimants, and provide the bibliography used at the end of the text. In addition to fact-checking a claim, fact-checking platforms also publish content that shares accurate information on climate change. Teyit.org produced 125 pieces of content on accurate information sharing, while Climatefeedback.org produced 26 pieces of content. The content with accurate information sharing was published on the websites of Teyit.org and Climatefeedback.org. On Teyit.org, the most written content (n=32, 25.6%) on the category of climate skepticism/denialism/alarmism was accurate information sharing. At this point, it is noteworthy that climate denialism exists among individuals with different educational backgrounds in Türkiye, although it does not pose a serious threat (İklim Haber & Konda, 2024, p. 23). Informative comments on climate skepticism and denialism, key considerations, and solutions to this problem were included. In addition, under the heading of "Concepts" (n=18, 14.4%), the society was informed about the terminology on climate change (green laundering, carbon tax, carbon footprint, etc.), and under the heading of "Sustainability" (n=15, 12%), information was provided on issues such as recycling and renewable energy. Teyit.org's emphasis on sharing accurate information on climate change can be interpreted as a step towards addressing deficiencies in climate change literacy and misinterpretations in the perception of climate change in Türkiye (İklim Haber & Konda, 2024). In addition, the issues of emissions (n=14, 11.2%), climate change (n=13 10.4%), environmental disaster (n=8, 6.4%), and conspiracy theories (n=8, 6.4%) also stand out. Climatefeedback.org shared less accurate information content than Teyit.org. The categories of environmental disaster (n=7, 26.9%), emission (n=5, 19.23%), temperature (n=4, 15.38%), and other (n=7, 26.9%) are notable in this content. In fact, although extreme weather events, one of the important consequences of climate change, seriously affect Türkiye (İklim Haber, 2024), this is a category that Teyit.org has covered relatively less.

In the findings obtained regarding the authors of accurate information sharing, 18 pieces of content (69.23%) of Climatefeedback.org were prepared by scientists, and 8 (30.77%) were prepared by journalists. At Teyit.org, none of the content was prepared by scientists. Journalists (n=94, 75.2%) and environmental activists (n=22, 17.6%) made up the majority of the content, while the institutes (n=4, 3.2%) and other (n=5, 4%) categories were more limited. The category of environmental activists represents writers who are not specialized in journalism or climate science, but who write on the subject. In this sense, there is a significant difference between Climatefeedback.org and Teyit.org in terms of both the contribution of scientists and the diversity of contributors.

In terms of the use of corrective resources for accurate information sharing, Climatefeedback.org referred to scientist opinion or scientific research in all of its content. Teyit.org, on the other hand, cited scientific sources in 10 pieces of content (8%), news texts in 15 pieces of content (12%), and more than one corrective source in 97 pieces of content (77.6%). In 3 (2.4%) pieces of content, no sources were cited. At this point, while the scientific

aspect of Climatefeedback.org is more predominant in terms of both content creators and corrective sources, the use of multiple sources stands out in Teyit.org. It should be noted that references to Teyit.org's news content include Western media organizations such as the BBC and The Guardian.

Fact-checking Content

The findings on which aspects of climate change the fact-checking platforms emphasized in the content tested for accuracy were analyzed. It was observed that the issue distribution of the content was quite wide. In fact, many pieces of content emphasizing different aspects of climate change also include information on different categories. It is possible to talk about a classification-parsing process in which the categories are quite intricate. For this reason, while categorizing the topics, the title of the content and the theme it focuses on the most were highlighted.

The points that fact-checking platforms emphasize about climate change differ. At this point, Table-1 indicates that in the categories of "temperature", which represents the increase in air temperatures, and "sea and ocean", which is based on the changes in the seas and oceans, Climatefeedback.org includes 88 (24.78%) and 67 (18.87%) pieces of content, respectively, while Teyit.org includes 5 (6.41%) and 5 (6.41%) pieces of content in this category. On the other hand, content produced on the themes of activism (n=14, 17.94%), environmental disaster (n=12, 15.38%), and agriculture and animal husbandry (n=12, 15.38%) stood out on Teyit.org. Under the activism heading, Teyit.org was found to verify claims about climate protests, particularly Greta Thunberg. The discussions that arose after Greta Thunberg's visit to Türkiye, Thunberg's posts and photos, allegedly belonging to Thunberg, were verified. It is also reported that the possible effects of climate change on Türkiye may include an increase in environmental disasters such as forest fires, droughts, and extreme weather events (Türkeş, Sümer & Çetiner, 2000, pp. 13-14; Öztürk, 2002, p. 60; Kadıoğlu, 2009, pp. 22-23). Moreover, the negative impact of agricultural and animal production on climate change (Bayraç & Doğan, 2016, pp. 36-37; Sarıözkan & Küçükoflaz, 2020) and the inadequacies that climate change may cause in agricultural production (Kadıoğlu, 2009, p. 22) are also seen as important factors. At this point, the verification of disinformation regarding such disasters is parallel to the prevalence of the effects.

Table 1.

Disinformation issue and comparison of fact checking platforms

The issue of disinformation	Fact-checking platforms		
	Climate	*Teyit*	*Total*
Temperature	88	5	93
Seas and oceans	67	5	72
Climate change	61	3	64
Emission	40	2	42
Anthropogenic	32	1	33
Environmental disaster	19	12	31
Agriculture and animal husbundry	8	12	20
Conspiracy theories	11	7	18
Biodiversity loss	13	2	15
Activism	0	14	14
Climate models	13	0	13
Sustainability	0	9	9
Climate scepticism/denialism/alarmism	2	0	2
Fossil fuels	1	1	2
COP	0	2	2
Public health	0	2	2
Water resources	0	1	1
Total	355	78	433

It was observed that different determinations emerged regarding the evaluation of the degree of accuracy of the information tested. At this point, according to Table 2, both fact-checking platforms conveyed the types, degree of accuracy, misleading, and incomplete aspects of disinformation. Out of a total of 433 fact-checking content, 427 (98.61%) concluded the claims and conveyed the degree of accuracy. However, the degree of accuracy could not be determined in 6 (1.39%) pieces of content, and these contents were categorized as “uncertain”. More than half (n=219, 51.28%) of the 427 claims whose degree of accuracy and category were evaluated were found to be directly “false”, while 105 claims (24.59%) were found to carry misleading information. It would not be wrong to say that the number of claims found to be “true” (n=103, 24.12%) also represents a significant proportion. There are similarities and differences in the degree of accuracy determined by the fact-checking platforms. In terms of similarities, the most common degree of truthfulness identified by both fact-checking platforms was the sharing of false information. At this point, 76% (n=57) of Teyit.org content fell into the false information category, while this rate was 46% (n=162) on Climatefeedback.org. In terms of differences, Teyit.org's most common fact-check after false information (n=11, 14.6%) was the “correct” category. At this point, Climatefeedback.org's content in the misleading category (n=98, 27.84%) was quantitatively more.

Table 2.

Shared platform, types of claim and comparison of fact-checking platforms

Types of claim	Shared platform	Fact-checking platforms		
		Climate	*Teyit*	*Total*
False	Newspaper/ Magazine sites	98	4	102
	Social media	46	50	96
	Web sites	16	1	17
	TV	2	1	3
	Multiple	0	1	1
	Total	162	57	219
Misleading	Newspaper/ Magazine sites	71	3	74
	Web sites	15	1	16
	Social media	12	3	15
	Total	162	57	219
True	Newspaper/ Magazin sites	85	1	86
	Social media	2	8	10
	Web sites	5	2	7
	Total	92	11	103
Uncertain	Newspaper/ Magazin sites	2	0	2
	Web sites	1	1	2
	Social media	0	2	2
	Total	3	3	6
Total	Newspaper/ Magazine sites	256	8	264
	Social media	60	63	123
	Web sites	37	5	42
	TV	2	1	3
	Multiple	0	1	1
	Total	355	78	433

According to the findings on the platforms where the claims were published (Table 2), 267 (61.66%) pieces of content were shared by institutional media platforms (newspapers, magazine websites, and TV). Thus, by providing a forum for opposing views, the media perpetuates the myth of the lack of international scientific consensus on anthropogenic climate change and thus manages to maintain public confusion (Antilla, 2005, p. 350). Traditional media and digital media platforms are also instrumental in the dissemination of disinformation. For example, ExxonMobil is known to have paid the New York Times to run editorial-style advertisements between 1989 and 2004 (Supran & Oreskes, 2020). In this study, it is seen that 264 pieces of disinformation content were presented in online news sites. Climate change denialism persists in specific contexts, and much of the journalistic attention focuses on the

narrative of alarmists and deniers, thus overlooking more important debates about climate change (Brüggemann & Engesser, 2017). Again, the content shared on social media networks (n=123, 28.40%) is also a factor in the spread of disinformation. As in the case of Hurricane Sandy, social media networks play a role in the spread of disinformation (Gupta et al., 2013). There is also a difference between fact-checking platforms in terms of the channels where the content they fact-check is published. At this point, it was revealed that Teyit.org frequently fact-checks disinformation on social media (n=63, 80.76%), while Climatefeedback.org evaluates the content on the websites of newspapers and magazines (n=256, 72.11%).

Table 3.

Claim makers and comparison of fact-checking platforms

Claim makers	Fact-checking platforms		
	Climate	*Teyit*	*Total*
Journalist	222	11	233
Social media users	24	60	84
Scientist	38	2	40
Politician	26	4	30
Author	14	0	14
Anonymous	10	0	10
Institute	9	0	9
Phenomenon	4	0	4
TV	3	1	4
Businessman	1	0	1
University	1	0	1
Climate deniers	1	0	1
Pope	1	0	1
Environmental activist	1	0	1
Total	355	78	433

When the findings regarding the fact-checked claim makers (Table 3) regarding climate change are evaluated, while the claims of journalists (n=222, 62.5%) are examined in a large part of the content of Climatefeedback.org, scientists (n=38, 10.70%) are in the second place. The claims of authorities such as politicians (n=26, 7.32%), authors (n=14, 3.94%) and institutes (n=9, 2.53%) are also fact-checked. It is known that there are organizations such as the Heartland Institute that deny climate change (McCright & Dunlap, 2010; Boykoff, 2024). Similarly, in the institute category, the institute in question is one of the leading organizations spreading disinformation on climate change.

In Teyit.org, it is seen that the group whose claims are fact-checked are mostly social media users (n=60, 76.92%), while the claims of journalists are verified in 11 contents (14.10%). Politicians (n=4, 5.12%), scientists (n=2, 2.56%) and TV broadcasters (n=1, 1.28%) represent the minority whose claims are fact-checked.

Table 4.

Corrective source and comparison of fact-checking platforms

Corrective source		Fact-checking platforms		
		Climate	*Teyit*	*Total*
	Scientific	355	2	357
	News	0	47	47
	Multiple	0	29	29
	Total	355	78	433

When Table-4 is analysed; in fact-checking, Teyit.org and Climatefeedback.org cite scientific sources or news content in their assessments of claims. At this point, no unsubstantiated content was found. However, both platforms differ in their use of corrective resources. Climatefeedback.org bases fact-checking on a scientists' opinions or a scientific research in all its content. On Teyit.org, on the other hand, scientific sources are used in only 2 pieces of content, while the category of news articles (n=47, 60.25%) ranks first, and the category with both news and scientific bases (n=29, 37.17%) ranks second. At this point, it is important that Climatefeedback.org values scientific bases. Teyit.org states that it frequently refers to scientific sources in fields such as medicine (Teyit, 2025b). Therefore, as seen in this study, Teyit.org does not use scientific sources as much as Climatefeedback.org. In addition, the sources used at the end of the fact-checking texts are shared, and the accessibility of the sources is seen as a positive point.

Table 5.

Visual content usage and comparison of fact-checking platforms

Visual content		Fact-checking platforms		
		Climate	*Teyit*	*Total*
	Multiple	256	46	302
	Photo	69	25	94
	Table/Graphics	17	4	21
	Unused	13	0	13
	Video	0	3	3
	Total	355	78	433

When examining the use of content that supports scientific grounds in fact-checking (Table 5), it is seen that a very high percentage (n=420, 96.99%) of the fact-checking platforms include elements such as tables, graphics, photos, and videos. Most of the content (n=302, 69.74%) includes more than one visual element. The most commonly used single visual element (n=94, 21.7%) is photography. Climatefeedback.org and Teyit.org used photographs in 69 (19.43%) and 25 (32.05%) pieces of content, respectively. When fact-checking platforms are compared, the use of more than one image was the prominent category of both platforms. In this sense, Climatefeedback.org used multiple images in 256 (72.11%) pieces of content, and Teyit.org used multiple images in 46 pieces (58.97%) of content. While Climatefeedback.org has a low percentage of content that does not use visual elements (n=13, 3.66%), Teyit.org uses visuals in all of its content.

Discussion

In this study, content from two countries, Türkiye (Teyit.org) and France (Climatefeedback.org), where fact-checking and accurate information sharing in the field of climate change, were analyzed. The study aims to reveal the role, practice and potential of fact-checking platforms in the process of producing accurate information on climate change and preventing disinformation.

Considering the first research question of the study, the implementation styles of both fact-checking platforms are similar except for the frequency of including scientific sources. fact-checking platforms. Although fact-checking platforms are country-specific, they have also emphasized international issues such as the verification of global claims or the impact of climate change on the global arena. In the production of accurate information, content prepared on different topics related to climate change was conveyed to the public with scientific bases. At this point, it should be emphasized that accurate information production has the potential to increase the level of climate literacy for both societies, especially Türkiye. In disinformation checks, the claims made by various claim makers in different channels were examined in depth, and the degree of accuracy of the claims was determined with many different corrective sources, such as scientists' opinions, scientific studies, and news texts. Similar categorizations were made regarding the types of claims. Considering the first research question of the study, it was found that there was no difference in the way both fact-checking platforms were implemented. The claims investigated by the fact-checking platforms frequently consist of content that is published in media outlets and social media platforms. Palau-Sampio, Crisóstomo Flores, and Picó Garcés (2024) also concluded that social media and traditional media play a significant role in the dissemination of disinformation on climate change. Similar practices are evident in how both fact-checking platforms attain their conclusions and how they analyze the claims in detail, along with the evidence. Both fact-checking platforms emphasize what the claim is in the title of the content. Both fact-checking platforms summarize the results of the review in the findings section. In this respect, fact-checking platforms are considered to be an important actor in combating climate change.

It is observed that Climatefeedback.org started its fact-checking earlier (foundation year: 2014) than Teyit.org (foundation year: 2016). At this point, it is thought that Teyit.org's steps in the process of climate change are relatively late. As a matter of fact, the dominance of Climatefeedback.org (n=381) over Teyit.org (n=203) in the number of content prepared for accurate information production and disinformation check is thought to be parallel to this. This situation can be considered to be in parallel with the efforts of countries in the fight against climate change. The fact that France is one of the first countries to commit to zero emissions by 2050 (Grantham Institute, 2025) and one of the leading countries with the steps it has taken in this regard (Climate Trade, 2023) may increase the public's demand for accurate information on climate change. The fact that Teyit.org prepares content with a higher rate of accurate information sharing can be considered an effort to increase the level of climate change literacy. On the other hand, considering the production of accurate information and disinformation checks (n=584), the amount of content produced confirms the seriousness of disinformation on climate change, regardless of the country. Palau-Sampio, Crisóstomo Flores & Picó Garcés' research on four countries (2024) also found that disinformation on climate change is

widespread regardless of the country. This necessitates emphasizing the importance of fact-checking platforms.

Fact-checking platforms emphasized different aspects of climate change. Climatefeedback.org emphasised "environmental disaster", "emission", and "temperature" in sharing accurate information about climate change. In fact-checking, it was observed that "temperature" and "seas and oceans" were prioritised. In Teyit.org, accurate information sharing, the issues of "climate denialism", "concepts" about climate change, and "sustainability" stood out. In fact-checking, the issues of "activism", "environmental disaster", and "agriculture and animal husbandry" were analysed. Disinformation on the issues of "environmental disaster", which is prominent on Teyit.org, and "temperature", which is prominent on Climatefeedback.org, was also found to be widespread in different studies (Palau-Sampio, Crisóstomo Flores & Picó Garcés, 2024). At this point, it would not be wrong to say that the causes and effects of climate change are frequently emphasized. There is a weak link between the verified claims and the aspects emphasized in accurate information sharing, except for the temperature category of Climatefeedback.org. As mentioned in the findings section, while it was observed that the verification processes emphasized the widespread effects of climate change in Türkiye, it was also found that activist actions discussed on social media were also tried to be verified (RQ2). Studies on social media and disinformation have found that social media has become a significant platform for disseminating disinformation when the environmental agenda is intense in Türkiye (Kobak & Soğukdere, 2021; Türkeri & Karaüzümcüoğlu, 2023; Besnili Memiş, 2024).

It is possible to see similarities rather than significant differences in the types of claim. It was found that both organizations frequently detected "false" content (n=219) as a type of claim in their control processes. In addition, Climatefeedback.org's detection of misleading content (n=105) also reached a considerable point, while there were 103 reviews that were found to be "true". This shows that a significant portion of the claims made were far from the truth. At this point, in a study conducted on disinformation on climate change (Vu, Baines & Nguyen, 2023), "false" content appears as the most common type of claim. Therefore, the prevalence of claims characterised as "false" in the dissemination of disinformation on climate change in different regions stands out. (RQ3).

There is a difference in the fact-checking platforms where the claims are reported and the owners of the claims. While Climatefeedback.org mostly verifies content published in newspapers and magazines (n=256), Teyit.org (n=63) focuses on content on social media platforms. As mentioned in the findings section, the impact of social media on disinformation processes in Türkiye is in question. Regarding the claim makers, it was found that Teyit.org emphasized social media users (n=60) and journalists, while Climatefeedback.org evaluated the claims of journalists (n=222) and scientists (n=38) (RQ4). In addition, while there were only three contents that were not based on any reference in the use of corrective resources, it seems satisfactory that a scientific perspective stands out in sharing accurate information and fact-checking. At the same time, Climatefeedback.org emphasized its strong scientific aspect by referring to scientific references in all content, while Teyit.org included news text references (n=15) and multiple references (n=97) in addition to scientific references. In addition, it is noteworthy that Climatefeedback.org prioritizes scientists (n=18), while Teyit.org mostly

utilizes journalists (n=94) in terms of those who prepare accurate information sharing. Differences in the use of corrective resources coincide with the findings of a study (Vu, Baines & Nguyen, 2023) on climate change and disinformation. When compared to Climatefeedback.org, Teyit.org's lack of citing scientific sources was noteworthy. At this point, it can be understood as a significant outcome that Teyit.org should further strengthen its scientific aspect compared to Climatefeedback.org. In terms of sharing accurate information, Teyit.org's encouragement of scientists to prepare content in the field of climate will strengthen its scientific aspect and facilitate the understanding of the problem. As a matter of fact, the fact that Climatefeedback.org cites scientific sources in its fact-checking processes stands out as a factor that increases credibility (RQ5). In addition, while Teyit.org's fact-checking of claims on social media is considered valuable, evaluating the claims of newspapers and scientists will contribute to eliminating confusion about climate change and deciphering climate denialism. In addition, it is seen as positive in terms of transparency and accessibility that the fact-checking platforms share the claims of the claim makers and the bibliography used at the end of the text in terms of sharing accurate information and fact-checking.

Conclusions and Recommendations

As a result of the research, it was determined that disinformative content about climate change is widespread within the analyzed content. It has been observed that the prevention of disinformation on climate change and the need for access to accurate information are critical requirements. In this direction, it has been found that fact-checking platforms assume a significant responsibility and have a high potential in increasing climate change literacy through transparent and accessible content production. While Climate Feedback's scientific approach in the content preparation process was determined to be strong, it was concluded that Teyit.org should increase the number of contents it fact-checks. It is thought that the differences between countries in terms of disinformation and accurate information sharing, the use of scientific resources, and content creators can be attributed to different regional effects of climate change or social structure. There is similarity and typicality in evaluations such as types of claim and use of visual elements. Considering that it is not possible for fact-checking platforms to fact-check almost all content on climate change, it would be useful to integrate artificial intelligence technologies into this field. Automatically detecting a number of disinformation above human capacity will be beneficial in raising public awareness and combating climate denialism. In Türkiye, it would be appropriate for fact-checking platforms other than Teyit.org to focus more intensively on climate change.

In future studies, in-depth interviews with the editors of fact-checking platforms can be conducted to obtain more in-depth findings on the processes related to disinformation content. In addition, interviews with scientists working on fact-checking platforms can be conducted to investigate why it is important to combat disinformation on climate change. A field research can be carried out on digital media users to determine the impact of fact-checking platforms. In this study, fact-checking platforms in Türkiye and France were analysed in the combat against disinformation on climate change. In future research, different countries and fact-checking platforms can be examined to reveal national or regional contexts.

Permissions

Ethics Committee Permission

The authors declared that no ethics committee approval was required for the article.

Authorship Contribution

Emrah Budak: Data Collection, Data Analysis, Data Visualization, Spelling, Evaluation and Review

Enes Baloğlu: Idea/Concept, Conceptual Background, Methodology, Spelling, Evaluation and Review

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