CORVINUS UNIVERSITY of BUDAPEST

Doctoral School of Sociology and Communication Science

THESIS BOOKLET

Orsolya Kovács-Magosi

Climate Change Coverage in the Hungarian News Media (2014–2024)

The Impacts of Youth-Led Climate Activism on the Media Agenda

Supervisor:
Levente Székely, PhD, habil.

Budapest, 2026

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I. Research background and justification for the selection of the topic

Climate change has developed from a predominantly scientific concern into a widely mediated, politically contested and socially consequential public issue. News media are central to this process because they influence which aspects of climate change become visible, how often the issue appears, which actors gain attention, and how causes, consequences and possible responses are interpreted. Agenda-setting research provides a framework for examining changes in issue visibility over time (McCombs & Shaw, 1972; McCombs, 2005), while framing research draws attention to the interpretative choices through which particular aspects of an issue are selected and emphasized (Entman, 1993; Nisbet, 2009).

Climate change is especially relevant for longitudinal media research because attention to the issue is uneven. Coverage often rises around international negotiations, scientific reports, extreme weather events, political conflicts and protest waves, and can then decline when other issues take over the news agenda (Downs, 1972; Anderson, 2009; Hase et al., 2021). The issue-attention cycle is therefore useful for interpreting fluctuations, but climate communication research also shows that attention does not necessarily follow one fixed or predictable cycle (Anderson, 2009). Longitudinal analysis is valuable because it can reveal not only major peaks but also longer-term shifts, declines and periods of comparatively low visibility (Hase et al., 2021; Meier & Eskjær, 2024).

Research gap and the Hungarian case

Environmental and climate communication research has expanded considerably, yet its geographical distribution remains uneven. Western Europe and North America continue to dominate the field, while Central and Eastern European and post-socialist contexts are less represented (Hansen & Cox, 2023; Bera, Vilchez & Muenster, 2025). This matters because climate communication is shaped by national political, institutional and media conditions rather than developing in the same way across countries.

Hungary is a particularly relevant case within the Central and Eastern European context. During the period examined, the Hungarian media system underwent substantial structural transformation, including increasing ownership concentration and political influence over parts of the news landscape. These developments strengthened differences between government-aligned and independent media actors and created an environment in which the same climate-related event could be interpreted through different political and ideological lenses (Bátorfy, 2022; Polyák, Urbán & Szávai, 2022).

Previous Hungarian research has examined early patterns of climate coverage and localization, climate and energy policy in news discourse, the representation of extreme events, youth climate attitudes, environmental activism and protest framing (Székely & Polgár, 2008; Jankó et al., 2011; Hafenscher & Jankó, 2022; Buzogány, Kerényi & Olt, 2022; Vancsó & Kovács-Magosi, 2024; Vancsó, 2024). However, systematic longitudinal research combining changes in the volume of climate coverage, framing patterns, climate activism, outlet-level differences and newsroom practices remains limited.

Climate activism and the media agenda

The emergence of Fridays for Future (FFF) and Extinction Rebellion (XR) in 2018 created a new phase of climate mobilization. Their demonstrations, digital communication, recognizable actors and protest tactics produced recurring news events around an issue that is otherwise gradual, complex and often difficult to translate into conventional news narratives. Social movements can influence media agendas by creating events and actors that attract journalistic attention, although gaining visibility does not mean controlling how a movement is represented (Andrews & Caren, 2010; Bennett & Segerberg, 2013; Bergmann & Ossewaarde, 2020).

The dissertation therefore treats youth-led climate activism primarily as a potential agenda-building force rather than as the sole cause of changes in climate coverage. The period after 2018 also included the IPCC 1.5°C report, international climate negotiations, extreme weather events and later the COVID-19 pandemic. Temporal coincidence between activism and increased coverage cannot by itself establish causality. The study instead asks whether activism formed part of a broader change in the visibility and framing of climate change in Hungarian online news.

This distinction is also important because activist visibility and climate visibility are not identical. Greta Thunberg and FFF could attract substantial attention even when coverage was critical. In government-aligned media, the focus could shift from climate science itself to Thunberg as a political and cultural figure. Activism could therefore increase the visibility of climate change while simultaneously becoming incorporated into pre-existing political narratives.

Research questions and hypotheses

The dissertation addresses four research questions:

RQ1: How has the distribution of climate-related key terms evolved between 2014 and 2024 in the Hungarian media?

RQ2: How has the framing of climate change in Hungarian news media evolved between 2014 and 2024?

RQ3: To what extent did international climate movements (e.g. Fridays for Future, Extinction Rebellion) receive media attention in Hungarian news media between 2014 and 2024?

RQ4: How does youth-led climate activism, particularly Fridays for Future and Extinction Rebellion, influence the frequency of climate change in Hungarian media coverage?

Four hypotheses were formulated:

H1: Climate change coverage is strongly event-driven and dominated by intensifying emergency framing patterns.

H2: Media framing of climate change becomes more urgent following the emergence of climate activism in 2018.

H3: Climate change media coverage differs systematically across government-aligned, independent, and critical news outlets in Hungary.

H4: Increases in media attention associated with climate activism are predominantly short-lived rather than sustained over time.

Aims and contribution

The study aims to identify long-term patterns of media attention to climate change, including peaks, declines and periods of relative absence; examine changes in climate framing; assess how periods of intensified youth climate activism relate to climate visibility; compare politically different segments of the Hungarian media environment; and provide insight into the agenda-building processes behind the observed patterns. Its broader contribution is to connect longitudinal agenda analysis, framing, climate activism, media-system differences and newsroom practices within a single research design.

II. Methodology

The dissertation uses a longitudinal case-study design to examine Hungarian online news media between 1 January 2014 and 31 December 2024. It follows a sequential explanatory mixed-methods design (Creswell & Plano Clark, 2011): quantitative media agenda analysis first identifies long-term patterns of visibility, after which qualitative framing analysis examines how climate change was interpreted during selected periods. Four semi-structured interviews with journalists and newsroom professionals provide supplementary context for interpreting the media patterns.

Data source and corpus construction

The primary data source is the media monitoring database of OBSERVER Kft. Media appearance data were collected in June and July 2025. The raw keyword-based dataset contained more than 300,000 media items. Cleaning involved the removal of records without titles, non-.hu domains, MTI wire content, low-relevance records below the validated relevance-score threshold of 40, and duplicate content. Particular attention was paid to centrally redistributed KESMA material so that identical articles published across multiple outlets did not artificially inflate the results.

The unit of analysis is the individual online news article. The selected outlets represent different parts of the Hungarian online media environment, including independent and alternative, government-aligned, economic/non-partisan and tabloid news outlets. Because the media landscape changed during the decade, the exact outlet composition varies across the analytical periods.

Periodization as an analytical device

The ten-year period was divided into three analytically coherent phases. The purpose of the periodization is not simply chronological convenience: it allows the analysis to compare different modes of climate communication that would otherwise be blurred together. The boundaries were defined using relevant literature and observable agenda-setting triggers, especially the emergence of youth climate activism and the disruption caused by COVID-19.

Period	Dates	Analytical logic
Period I	Jan 2014 – Jul 2018	Pre-activism baseline: relatively fragmented, event-driven climate coverage; organized youth climate activism largely absent from the media agenda.
Period II	Aug 2018 – Jun 2021	Activism peak and disruption: begins with Greta Thunberg's school strike; includes the 2019 climate-strike wave and the COVID-19 disruption of both the news agenda and physical mobilization.
Period III	Jul 2021 – Dec 2024	Post-mobilization stabilization and competing crises: climate coverage remains above the early-period baseline while activism loses visibility and climate news increasingly competes with war, energy and economic crises; localization becomes more important.

Table 1. Analytical periodization of the study (based on the dissertation's periodization logic).

Period I provides the pre-activism baseline against which later changes can be assessed. Period II begins in August 2018, when Greta Thunberg initiated her school strike in Sweden, and captures both the rapid rise of youth climate mobilization and its interruption by the pandemic. Period III begins after the COVID-19 emergency period and represents a different agenda environment: climate change remains more established than in the early years, but competes with overlapping political, economic and security crises. Towards the end of this phase, domestic climate impacts such as drought, heat, agriculture and water increasingly provide local entry points into climate reporting.

Phase I: quantitative media agenda analysis

The quantitative phase maps the temporal dynamics of climate-related coverage. Daily, monthly, quarterly and annual frequency distributions were used to identify long-term trends, peaks, declines and differences across outlets and periods. The analysis was supplemented with interrupted time-series models and robustness checks. August 2018 was used as an interruption point for the emergence of youth climate mobilization and March 2020 for the onset of COVID-19. Detrended quarterly Z-scores were also used to

identify statistically elevated periods of attention. These procedures support structural interpretation but do not establish a single causal effect.

Phase II: qualitative media framing analysis

The framing analysis is based on a stratified sample of N = 300 full-text online news articles. Each article was assigned one dominant climate frame. The final typology includes climate action; climate policy; scientific consensus; science denial/uncertainty/distant threat; economic development/competitiveness/benefits; economic risks of climate protection; harmful impacts/risks/destruction of nature; moral duty/climate justice; and responsibility/accountability/political conflict.

Climate activism was coded separately as an actor/trigger dimension. This distinction makes it possible to identify whether activists were present without automatically treating activism as the dominant climate frame. Activism-related coding captured, among other patterns, legitimate civic action, disruption or deviance, politicization, youth/generational framing and strategic media performance.

Supplementary interviews

Four semi-structured interviews with journalists and newsroom professionals were conducted in summer 2026. They were used to contextualize the quantitative and qualitative findings, especially newsroom attention, news value, localization, editorial autonomy, political interpretation, climate activism and the constraints of explanatory journalism. The interviews are supplementary and are not treated as representative of Hungarian journalism as a whole.

The study is limited to selected Hungarian online news outlets. It does not test audience effects, systematically analyze activist social-media communication, or claim that activism alone caused changes in media coverage. The results therefore concern patterns of media attention and framing within the selected corpus and the temporal relationships between activism, other agenda triggers and climate coverage.

III. The scientific findings of the dissertation

The scientific findings below summarize the main results of the longitudinal media agenda analysis, the qualitative framing analysis and the supplementary newsroom interviews. In accordance with the dissertation's periodization, the findings distinguish between the pre-activism baseline, the activism-and-disruption phase, and the later period of stabilization and competing crises.

Climate change became a more established part of the Hungarian online news agenda between 2014 and 2024, but the increase was not linear.

Period I was characterized by lower and more fragmented attention, with coverage often falling relatively quickly after major events. Period II brought the strongest acceleration, culminating in the exceptional attention of 2019 before COVID-19 sharply displaced climate coverage in 2020. In Period III, coverage recovered and remained above the early-period baseline. The Hungarian case therefore shows that event-driven peaks and longer-term growth in issue salience can occur at the same time.

The 2018–2019 youth climate mobilization marks an important turning point, but the statistical evidence supports gradual acceleration rather than a single immediate shift.

The interrupted time-series analysis does not identify a statistically significant immediate level change after August 2018. It does, however, identify a significant positive change in the subsequent trend. This is consistent with the fact that the movement was still mainly gaining momentum in Western Europe in 2018 and became more visible in Hungary later. The increase in climate attention also coincided with the IPCC 1.5°C report, international climate negotiations and extreme weather, so the change cannot be attributed to FFF alone.

Climate activism acted primarily as an agenda-building force: it generated attention to climate change even when coverage of activists was critical.

Protests, recognizable activists and public events gave journalists concrete stories through which to report on climate change. Greta Thunberg became far more visible than FFF as an organization, while XR remained much less prominent. In government-aligned media, coverage often focused on Thunberg's personality, statements and political meaning rather than on climate science itself. Activist visibility therefore did not imply endorsement, but it could still increase the overall visibility of climate change.

Activist visibility was temporary, while the stronger position of climate change on the news agenda proved more durable.

The visibility of Greta Thunberg and FFF declined substantially after the 2019 peak, especially when COVID-19 disrupted school strikes and took over the news agenda. Later climate protest waves also generated attention mainly around particular events. Climate change itself, however, did not return to its pre-2018 level. This distinction is central to the evaluation of H4: the visibility of movements was episodic, while the higher baseline of climate coverage was more persistent.

COVID-19 demonstrates the limits of activist agenda-building in a competitive news environment.

Even highly visible climate activism, involving large numbers of people both online and offline, could not prevent climate change from being pushed aside when a major public-health crisis directly threatened people's lives. This supports the view that media attention is competitive and that even established issues remain vulnerable to events with greater immediate news value.

The dominant framing of climate change throughout the qualitative corpus was harmful impacts, risks and destruction of nature.

This was the largest frame category in the N = 300 sample and became more prominent in the later period. The results therefore indicate increasing urgency, but not a uniform shift towards explicit "climate emergency" terminology. Hungarian newsrooms generally did not adopt formal language policies requiring terms such as "climate crisis" or "climate emergency"; terminology remained dependent on journalistic judgement, editorial conventions and context.

FFF broadened the framing of climate change after 2018 without replacing the existing framing structure.

After 2018, activism, youth perspectives and calls for action became more visible in climate coverage. However, the harmful-impact frame was already dominant before FFF and remained central after activism-related attention declined. Activism therefore added new actors and narratives to climate reporting rather than creating urgency from scratch.

The emergence of climate movements sharpened political distinctions in Hungarian climate reporting.

Earlier coverage showed a less pronounced divide between positions often labelled as "climate deniers" and "climate alarmists". After the rise of climate activism, these distinctions became more visible, particularly because movements and activists could be incorporated into existing political narratives. The strongest outlet-level differences were not about whether climate change existed, but about its seriousness, responsibility, legitimate policy responses and the legitimacy of climate activism.

Political differentiation is stronger at the level of framing than at the level of simple issue presence.

Explicit climate-science denial remained relatively marginal. Independent and alternative outlets were more likely to frame protest as legitimate civic engagement, while government-aligned outlets more often emphasized disruption, political motivation or strategic behaviour. The same climate event could therefore receive substantial coverage across different outlets while being interpreted in substantially different ways.

Towards the end of the period, localization became an increasingly important source of climate newsworthiness.

The severe Hungarian drought of 2022 was not a statistically exceptional detrended peak comparable to the 2019 climate-strike peak. Its importance lies instead in localization. Drought, extreme heat, agriculture and

water increasingly connected climate change to direct Hungarian experience. This points towards a later shift in climate reporting: climate change becomes easier to cover not only through international summits or prominent activists, but through consequences that audiences can experience locally.

The changing environmental context also helps explain why climate coverage remained more established in the later years.

Compared with a decade earlier, the effects of climate change have become more visible and tangible in Hungary. Extreme heat, drought and related impacts provide more immediate and locally relevant reasons for news coverage. The higher post-2018 baseline should therefore be understood as the result of several interacting developments rather than as the lasting effect of activism alone.

Newsroom practices and journalistic expertise form part of the longer-term change in climate reporting.

Climate reporting operates under competition for attention, limited resources and decentralized editorial decisions. At the same time, the approach of some newsrooms and journalists to climate change evolved during the decade, with greater attention to environmental topics and increasing specialization among journalists covering climate, energy, nuclear energy and related issues. This helps explain why climate communication cannot be reduced to a single issue-attention cycle.

Evaluation of the hypotheses

- H1 – Partially supported. Climate coverage is strongly event-driven, and harmful-impact/risk framing became more prominent, but the analysis does not show a uniform shift towards explicit climate-emergency terminology.
- H2 – Partially supported. Post-2018 coverage became more urgent and included more activism and action-oriented narratives, but activism amplified an existing trajectory rather than independently creating it.
- H3 – Supported. Systematic differences are clearest at the framing level, especially in representations of responsibility, urgency, activism and legitimate responses.
- H4 – Partially supported. Activist and protest visibility was predominantly episodic, but climate change itself remained at a higher baseline after the 2018–2019 mobilization period.

Scientific contribution

First, the dissertation shows that short-term attention cycles and long-term increases in media salience can coexist. Repeated peaks and declines do not necessarily return an issue to its original baseline. In the Hungarian case, climate change remained more visible after the exceptional attention of 2019 and the COVID-19 disruption than it had been in the early years of the study.

Second, the study refines the role of climate activism in agenda-building. Activists may influence when climate change becomes especially newsworthy without maintaining their own visibility over time or controlling how their actions are framed. The Hungarian case therefore separates the temporary visibility of movements from the more durable visibility of the issue itself.

Third, the dissertation demonstrates the importance of national media context. International climate movements entered a Hungarian media environment already structured by ownership concentration, political parallelism and different journalistic cultures. Their representation was consequently shaped by existing political narratives rather than simply transferred from an international protest context.

Finally, the periodization reveals a broader change in the sources of climate newsworthiness. Period I was dominated by episodic international and event-driven attention; Period II by the rise of activism followed by pandemic disruption; and Period III by a more stable but highly competitive climate agenda in which domestic impacts and localization became increasingly important. This periodized interpretation is one of the central empirical contributions of the dissertation.

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V. List of own publications related to the topic

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